THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE, TRANSFORMATIONAL LEADERSHIP AND ORGANISATIONAL CHANGE OUTCOMES IN PUBLIC INTENSIVE CARE UNITS

BY

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DECLARATION

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In accordance with Rule G4.6.3, I hereby declare that the above-mentioned thesis is my own work and that it has not previously been submitted for assessment to another University or for another qualification.

Nomawethu Befile

Date: 15 January 2017

Port Elizabeth
DEDICATION

I dedicate this research study to my lovely children, Inathi Hlobanisa Befile and Achumile Befile, who made me realise that, as a parent, you have to lead by example.
I thank God, the Father for His grace, love and kindness. God keeps on believing in me by providing all of the opportunities that led me to success and for granting me this opportunity to complete the research.

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ABSTRACT

Organisational change in any organisation, including the healthcare industry, implies a change in organisational culture. The concept of organisational culture refers to those values and norms within an organisation that are prescribed by both the employer and the employees as to how to behave. However, organisational culture should not be viewed in isolation, as culture and leadership are intertwined. Transformational leadership within an organisational culture serves to achieve its goal, missions and aims by influencing, motivating and creating a mutual relationship between employees and employers, which brings about effective organisational change. The alignment of organisational culture and leadership with a hospital’s vision is important to ensure optimal healthcare delivery and organisational change outcomes.

A positivistic research paradigm, with a quantitative, explorative, descriptive and contextual approach, was used to conduct the research study. The research study explored whether a supportive organisational culture, transformational leadership and organisational change outcomes were prevalent in public intensive care units. Secondly, the study aimed to investigate the relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units in the Nelson Mandela Bay. Data was collected by means of a structured and previously validated questionnaire with a Cronbach’s alpha of more than 0.80. The target population was registered nurses who work in the intensive care units in the public hospitals. The sample was composed of 56 registered nurses and 4 enrolled nurses who were selected from public hospital intensive care units in Nelson Mandela Bay. Descriptive statistics, linear regression analysis, correlation and a Chi-square test were used to describe the hypothesised relationship between organisational culture and transformational leadership (independent) with organisational change outcomes (dependent variable).

The results of this study revealed that the alternative hypothesis was accepted as the P value, was less than 0.05 in all variables. This proved that there was a significant relationship between organisational culture, transformational leadership and organisational change outcomes in the public intensive care units which were sampled. Recommendations are made as to how organisational culture can enhance
and support transformational leadership and organisational change outcomes to promote a positive change outcome in public intensive care units. Ethical considerations were maintained throughout the research study.

**Keywords**: organisational culture, transformational leadership, organisational change outcomes, intensive care units, public hospitals.
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CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 INTRODUCTION

The intensive care unit is a dynamic place within the healthcare organisation. Critically ill patients, with diverse disease conditions, are admitted to the intensive care units. Therefore, the decision-making related to the management of these patients is crucial. The intensive care units require highly skilled personnel which have obtained critical care training, and who are able to operate high technology equipment and are able to make informed decisions through critical thinking. With the introduction of concepts, such as evidence-based practices, there is a drive to improve clinical outcomes, patient safety, patient and family satisfaction and overall organisational performance. Decision-making should be based on reliable and robust evidence and often needs a leader that can facilitate the process. The intensive care units further require leaders who can adapt to and foster a culture that contributes to change in order to make a positive contribution to healthcare delivery (Jordan, Werner & Venter, 2015:9).

Leadership is an essential factor in creating the organisational culture and the conducive environment required to improve the quality of service delivery (Yildirim and Birinci, 2013:71). Furthermore, Botma, Botha and Nel (2011:921), concur that nurse leaders should be empowered to become transformational leaders so that they can encourage their nursing staff to become advanced and motivated nurses who render high quality nursing care. Avolio, Walumbwa and Weber (2009:2) define transformational leadership as a leader who has a behaviour which changes and motivates followers to perform tasks beyond their potential while exceeding self-interest for the good of the organisation.

Organisational culture and leadership are intertwined and this is essential to consider when organisational change is key to the organisation. The process of change and change management may differ in public versus private healthcare organisations. A private organisation is cost driven and this can influence the quality of care given to the patient, whereas public organisations have less desire to do well with costs. The performance parameters of the public healthcare organisations are in accordance with state policies and regulatory frameworks, which are provided by the state (Bedrule-
Grigoruta, 2012:1029). The leadership structure and organisational culture required is thus different between these two types of healthcare organisations. The research study aimed to explore whether a supportive organisational culture, transformational leadership and organisational change outcomes are prevalent in the public intensive care units in Nelson Mandela Bay. Furthermore, the relationships between organisational culture, transformational leadership and organisational change outcomes were also explored.

1.2 BACKGROUND

Culture refers to the values which are shared by people in a group, and which tend to persist over time, even when group membership changes (Baumgarther, 2009:105). According to Scott, Mannion, Davies and Marshall (2003:112), culture is divided into two broad streams. The first stream approaches culture as attributes, such as structure and strategy. The second stream regards culture more globally, by defining the whole character and experience of organisational life, in other words, by broadly defining or describing the organisation. Each health sector organisation has different philosophies, objectives, goals and visions, and hence, the culture of one sector is different from another sector. Werner, Bagraim, Cunningham, Pieterse-Landman, Portgieter and Viedge (2011:36), define organisational culture as a set of assumptions, values or beliefs that are shared by organisational members and which influences their behaviour. Borg, Waisfisz and Frank (2015:1) concur, by stating that organisational culture is the pattern of beliefs, values and learned ways of coping with experience that has been developed during the course of an organisation’s history, and which tends to be manifested in its material arrangement and in the behaviour of its members. Organisational culture has both a positive and innovative effect on leaders that drive behaviour and optimises sustainable organisational survival. Organisational culture will help employees to find meaning in their working lives. Organisational culture benefits the organisation by having employees that have favourable attitudes that enhance staff morale and thus leads to employees working to their fullest potential to achieve the goals of an organisation. Organisational culture cannot be viewed in isolation, as it has an intertwined relation to the leadership that is exhibited in an organisation. However, according to Werner et al. (2011:365), transformational leadership has emerged in the past fifteen years as a result of dramatic changes in
the microeconomic and social environments in which organisations operate and the organisation’s quest to survive and stay competitive in such a dynamic environment. Transformational leadership in organisations is important for shaping the views of the nursing staff, responses to organisational change and acceptance of improvements such as evidence-based practice (Werner et al., 2011:365). The researcher is aware of different types of leadership styles, such as autocratic, democratic, laissez-fair and bureaucratic. However, for the purpose of this study the researcher will focus on transformational leadership, which has proven to have the most significant link to organisational change and culture.

Transformational leaders create a vision, which they communicate in such a convincing manner, that employees personally identify with the vision and pursue it as a personal goal. A transformational leader inspires people to look beyond their own interests and focus on the needs and interest of the team. According to Werner et al. (2011:366), transformational leaders have an intellectual stimulation that makes the followers more aware of problems and solutions, radically changing their thinking patterns. Transformational leadership is considered as a means to achieve organisational change in order to improve culture within the organisation. Yildirim and Barinci (2013:74) observed that the effect of transformational leadership on organisational success and performance is unquestionable. Furthermore, Penava and Sehic (2014:132) state that a transformational leadership style is relevant in the context of organisational change as a leader would be able to influence nursing staff to conform on proposed changes in an acceptable manner. Transformational leadership and culture are identified as a cornerstone for long-term organisational success during organisational change. Gilson and Daire (2011:1) refer to Moore (1997), who indicated that shareholders are highly influential in driving private sector leadership, however, in the public sector, leaders are held accountable by the public at large, political stakeholders and policy makers. The World Health Report (2008), concluded that transformation in leadership is one of the four sets of transformation required to transform health systems so that they can better meet the range of existing health challenges.

The transformational leader plays a very important part in creating a drive in the organisation by sustaining the effort to achieve the organisational goals. According to
Jordan et al. (2015:2), transformational leaders influence followers to valuable and positive change with the goal to develop followers into leaders. The need for organisational change is important, especially in the healthcare industry, in order to render quality care to the patients. Yildirim and Birinci (2013:73) state that the relationship between transformational leadership and the organisational culture represents an ongoing interaction where the leader shapes the culture and the leader is in turn influenced by the resulting culture. Based on Acar & Acar (2012:683), organisational change outcomes is associated with positive outcomes for any organisational units, such as increased financial performance, better care delivery and increased patient satisfaction ultimately results in increased organisational performance overall. Having a supportive organisational culture and a transformational leadership that will contribute to organisational change outcomes is thus essential in the intensive care units.

1.3 PROBLEM STATEMENT

Critically ill patients are admitted to an intensive care unit, which is regarded as the costliest unit within a healthcare organisation. Due to the extent of the patient diseases and the demographic profile of patients admitted to these units, it is important that cost-effective, quality patient care be rendered. Furthermore, these units are dynamic and should thrive on evidence-based practices.

It has been observed that change is often not easy in the intensive care units due to heavy workloads and shortage of staff in the unit. Barriers to change management that were observed, for instance a mindset of preference for traditional practices, have been reported by means of informal conversations in such units. A culture of preserving tradition is often evident amongst healthcare practitioners in these units. The skill mix of the nursing staff, their background, belief system, values, qualifications and the leadership style used in the unit, are factors that might influence change and change management strategies in the intensive care unit. The nursing staff are exposed to following daily routines and adhering to outdated policies. Hence, the reason why most of the nursing staff view change as representing imbalance and therefore often perceive it as a threat. The nursing staff prefer the traditional way of doing procedures as it does not require critical thinking, change or discomfort. In some
instances, it is difficult to make informed decision due to the different values, beliefs and backgrounds.

In order to understand change and change outcomes, it is important to explore if transformational leadership and culture do have a relationship with organisational change outcomes. A similar study was already conducted in private hospitals by Jordan et al. (2014:1), and hence, the study is now conducted in public hospitals.

1.4 SIGNIFICANCE OF THE STUDY

There are studies on organisational culture, leadership and organisational change explored in business management and in the private healthcare sector, therefore, the paucity of literature available on the topic related to public hospitals in South Africa and specifically intensive care units. Hence, the study would make a contribution to the body of knowledge and research in the field of nursing.

1.5 RESEARCH OBJECTIVES

The objective of the study was to explore whether a supportive organisational culture, transformational leadership and organisational change outcomes were prevalent in public intensive care units. Furthermore, the study investigated the relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay.

1.6 RESEARCH QUESTIONS

The research questions for the study were as follows:

- Are supportive organisational culture, transformational leadership and organisational change outcomes prevalent in the public intensive care units within the Nelson Mandela Bay?

- What is the relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay?

1.7 THE RESEARCH HYPOTHESES

The following research hypotheses were formulated (Figure1):
H0; 1: There is a significant relationship between organisational culture and organisational change outcomes.

H0; 2: There is a significant relationship between transformational leadership and organisational change outcomes.

H0; 3: There is a significant relationship between organisational culture and leadership on organisational change outcomes.

**Figure 1.1. The Research Hypothesis**

1.8 CONCEPT CLARIFICATION

For the purpose of the study the following concepts are clarified.

**Organisational Culture**

An organisational culture is the way of doing things in the organisation. Borg, Waisfisz and Frank (2015:1) define organisational culture as the pattern of beliefs, values and learned ways of coping with experience that has been developed during the course of an organisation’s history, and which tends to be manifested in its material arrangement and in the behaviour of its members. In this study, the organisational culture in public healthcare organisations, in particular the intensive care units, was explored.
Transformational Leadership

Barr and Dowding (2008:61) describe transformational leadership as a leadership that motivate others to perform, by encouraging them to see a vision and a change in their perception of reality. Furthermore, Rigolosi (2013:92) describes a transformational leader as the leader who creates a vision for followers and then promotes an energetic environment towards making that vision a reality. In this research study, transformational leadership and its relationship with culture and organisational change outcomes in public intensive care units was explored.

Organisational Change Outcomes

Cawsey, Deszca and Ingols (2012:2) refer to organisational change as a planned alteration of organisational components to improve the effectiveness of the organisation. Furthermore, Cawsey et al. (2012:2), explain that organisational components are the organisational mission and vision, the strategy, goals, structure, processes or systems, technology and the people in an organisation. Change outcomes are the results or actions or behavioural changes that occur as result of change that has been implemented. In this study, the relationship between organisational culture and transformational leadership on the organisational change outcomes will be explored.

Intensive Care Unit

According to Rose (2011:5), intensive care units are a dynamic, complex, and at times, highly stressful work environment that involves ongoing exposure to the complexities of inter-professional team functioning. The study was conducted in public intensive care units within Nelson Mandela Bay.

Public Hospital

A public hospital, which is also called a government hospital, is a hospital owned by the government and which receives government funding (Segen, 2006:312). Public hospitals provide health care to the public. The study was conducted in public hospitals in Nelson Mandela Bay.
1.9  RESEARCH DESIGN

The research design is the plan for how the study will be conducted (Nieswiadomy, 2012:37). The design refers to the type and the means used to obtain the needed data. According to Brink, van der Walt and van Rensburg (2012: 217), a research design is the overall plan for gathering data in a research study. A positivist research paradigm, with a quantitative, explorative, descriptive and contextual approach was used to conduct the study, as the hypothesis relationship was statistically tested. The research design will be discussed comprehensively in Chapter three of the study.

1.10  RESEARCH METHOD

The process or plan for conducting the specific steps of the study is referred to as the research methodology (Grove, Burns & Gray, 2013:707). Furthermore, Brink et al. (2012:199) explains that the purpose of the research methodology is to inform the reader as to how the investigation was carried out, that is, what the researcher did to solve the research problem or to answer the research question. The research method explains the population, sampling, approach and techniques, data collection method, data processing and the analysis. The research methods used in the study will be comprehensively discussed in Chapter three of the study.

1.11  MEASUREMENT AND DATA QUALITY

The quality of research studies is of the utmost importance in conducting research. Unless the measurement tools' validity and reliability reflect the concepts being tested, conclusions drawn from the empirical phase of the study will be invalid (LoBiondo-Wood and Haber, 2010:65). The concepts related to ensuring reliability and validity in the study will be discussed in Chapter three of the study.

1.12  ETHICAL CONSIDERATIONS

According to Brink et al. (2012:32), a researcher is responsible for conducting research in an ethical manner from the conceptual and planning phases, through to the implementation and dissemination phases. Ethical principles are based on the human rights that need to be protected in research, namely, the right to self-determination, privacy, anonymity and confidentiality, fair treatment and to being protected from discomfort and harm (Brink et al., 2012:34). The research ethics are aimed at ensuring
the rights, safety and well-being of the participants, which are underpinned by respect for human dignity, protecting individual interest and integrity, and guiding research planning and conduct. In this study the researcher considered four ethical principles, namely, informed consent, anonymity, confidentiality and privacy, which were relevant to this research study.

1.12.1 Informed Consent

According to Brink (2007:35), informed consent is one of the mechanisms used to ensure that the participant’s human rights are protected. An informed consent is the process whereby the participant agrees to take part in a study after all the relevant and easily digestible information about the study has been provided. Furthermore, May and Holmes (2012:96) state that, informed consent is composed of three elements, namely information, voluntariness and comprehension. Informed consent must be obtained before recruiting participants and who must be given sufficient information about the study. Information must be clear, straightforward and honest, and must explain why the study is needed and what is required from the participants. The participants should give consent voluntarily and understand that they have a right to withdraw at any time with no impact on their care.

Before the study was conducted, the researcher obtained permission from the relevant authorities, which were the Departmental Research Committee and the Faculty of Research, Technology and Innovation at the Nelson Mandela Metropolitan University. The research proposal was approved at the Faculty of Research, Technology and Innovation level with the allocation of the ethics clearance reference number: H15-HEA-NUR-029. Permission was obtained from the Department of Health, the training committee of each hospital of the Nelson Mandela Bay. Permission was also obtained from the Medical Superintendents (Annexure D) of the hospitals where the research was conducted, the unit managers (Annexure E) and from the participants (Annexure A). The full information was provided to the participants pertaining to the study and the researcher informed participants that they could ask questions or ask for clarity where they did not understand. Only once the participants gave written consent, could they participate in the study. However, the participants were aware that they could withdraw from the study at any time if they wished to do so.
1.12.2 Confidentiality and Anonymity

Confidentiality is the management of private data in research so that participant’s identities are not linked with their responses (Grove, Burns & Gray, 2013:690). Confidentiality in a research project guarantees confidentiality when the researcher can identify a given participant’s responses but promises not to do so in public. Anonymity suggests that the identity of the research participants is unknown, even to the study investigators. Anonymity is preserved by coding data, using numbers so that participants cannot be identified in any presentation of the findings, and by keeping the personal information separate from the data (May & Holmes, 2012:98).

In this research study, the questionnaires (Annexure B) given to the participants were not marked and names were not required. Participants were instructed to sign the informed consent form (Annexure A), with the reassurance that the information collected would be kept strictly confidential and the consent forms were kept separately from the questionnaires. On completion of the questionnaires, participants were instructed to deposit them into a sealed box which was kept within the unit manager's office. Confidentiality was ensured, as the researcher exclusively handled the completed questionnaires and only the researcher opened the sealed boxes with the data.

1.12.3 Privacy

Privacy is the freedom with which the participants determine the time, extent and general circumstances under which the private information will be shared with or withheld from others (Grove et al., 2013:705). Privacy must mean what it says, that the questionnaire must be administered to the participants while alone and in a private place. When the research study was conducted, there were no factors that existed that could threaten privacy as the data obtained was handled and accessible to the researcher only. Participants did not disclose their names on the questionnaires as a reference number was allocated to each questionnaire and all data collected was to be kept in a safe place for the next five years. Only the researcher and statistician were involved with the data analysis.
1.13 CHAPTER OUTLINE

The study will consist of the following chapters:

Chapter 1 provides an introduction and an overview of the study. The chapter will provide the problem statement, conceptual model, research objectives, the definition of concepts and ethical considerations.

Chapter 2 provides the results of the narrative literature review that underpinned the research problem and the measuring instruments used.

In Chapter 3, the research method and design of the study is discussed. This includes the research paradigm, the sample, the measuring instruments, data analysis procedures and the ethical considerations as elaborated in this chapter.

In Chapter 4, the empirical results, as derived from the data, are reported and interpreted.

In Chapter 5, conclusions are drawn. The chapter also includes recommendations to public intensive care unit managers, as well as the limitations of the study, and will highlight areas for future research.

1.14 SUMMARY OF CHAPTER

Organisational culture and transformational leadership are important variables in organisational change outcomes. It is important to explore whether organisational culture, transformational leadership and organisational outcomes are prevalent, and what the relationship between these variables is.
CHAPTER TWO
LITERATURE REVIEW

2.1 INTRODUCTION
Chapter one provided an overview of the study. In this chapter the organisational culture and transformational leadership (independent variables) and organisational change outcomes (dependent variable) are discussed. In order to provide an understanding and knowledge of the subject matter, a clear definition of organisational culture, transformational leadership and change outcomes, different types of culture and dimensions of transformational leadership, are clearly discussed.

2.2 LITERATURE SEARCHING STRATEGIES
EBSCO Host was used to access full text medical and nursing journals from sites such as, Medline, PubMed, CINHAL, E-journals and Health Source: Nursing/Academic edition. Specific sites related to intensive care nursing and medicine, such as Medscape, were also used to search electronic journals. In order to obtain the best results, some search strategies were used to filter through the massive amounts of literature available.

- Boolean Operators such as “AND” were used to specify multiple words in any field and order, for example, “Organisational culture and leadership”; “organisational culture and leadership and change outcomes”; “healthcare and transformational leadership and change”.
- The Pearl Grow technique, where references of text books and articles are scanned for relevant literature sources was also used. The researcher then used alpha search options to find the articles and journals, using the titles and authors. This process assisted the researcher to use mostly primary research data.
- Hand searching of scientific journals, such as the South African Medical Journal, the South African Journal of Critical Care (SAJCC), organisational culture and leadership textbooks, was also used as a search strategy. This process allowed access to literature that may have not been available through the general search engines used in the study.
2.3 HEALTHCARE IN SOUTH AFRICA

Healthcare is the planned delivery of medical care to individuals or a community. Healthcare is the act of taking preventative or necessary medical procedures to improve an individual’s wellbeing. According to Sreeroma, Matavalum, Sekharan & Thunga (2015:265), who mention that the healthcare system makes sure that an appropriate access to healthcare services for individuals, good communication and attitude of healthcare workers with patients, prevention of communicable diseases and disabilities, detection of health conditions, provision of treatment, and improvement of quality of life which increases life expectations.

Globally, healthcare has the same complex issues, whether it is in a developed, developing or underdeveloped country (Barr & Dowding, 2012:14). The complex issues include shortage of staff and under resourced effective quality care. In Brazil, as a developing country, healthcare is the government’s responsibility and is provided by the private and public healthcare systems. Nevertheless, during an outbreak, both systems become overcrowded as stated by Sreeroma et al. (2015: 265). The healthcare system in South Africa consists of both the public and private sector. These are similar to the types that found in developing countries as well as other developed countries. The South African public health sector is composed of government owned healthcare institutes that mostly serve the urban and rural areas. However, the private owned sectors are profit oriented organisations funded by stake-holder investments who render services to anyone who can afford medical aid. According to Willie & Nkomo (2014:71), the public health system in South Africa is utilised by more than forty (40) million people, which comprises 82% of the population, while the private health system is currently servicing close to nine (9) million people who possess medical aid or who can afford the cost of healthcare services rendered to them. Jobson (2015:4) agrees that the expenditure of the public health care sector is around R122.4 billion to serve 84% of the population, and is equivalent to 42 million people who depend on the public health sector for services. Government expenditure on citizens who benefit from healthcare services who are not members of a private medical scheme has been stagnant until the past six years coupled with the huge burden on hospital services and the poor health profile (Chopra, Lawn, Sanders, Barron, Karim, Bradshaw, Jewkes, Karim, Flisher, Mayosi, Tollman, Churhyard & Coovadia, 2009:1027). Pillay (2011:2) highlighted that, nurses working within public hospitals in
South Africa are dissatisfied with the poor working conditions, poor organisation organisational climate, shortage of man-power, insufficient resources, lack of in-service training and lack of staff development programs.

The change in the healthcare system occurred in 1994, when the new government made a strong commitment to achieve fairness and promote a clear approach to service delivery in South Africa (Kinfu, 2013:1004). There are various levels of public healthcare systems in South Africa. The district hospitals are where patients are referred from primary healthcare clinics when they need more treatment and interventions. Furthermore, Jobson (2015:3) explains that the tertiary level is the academic hospitals where advanced diagnostic procedures and treatment are provided. De Beer, Brysiewicz and Bhengu (2011:6) agree that the public health sector provided healthcare delivery systems at all levels. These consist of the following:

- Primary (township or rural communities) healthcare which is centred on prevention and treatment of minor ailments.
- Secondary (district level) healthcare delivery systems which provide services to the community using the same efficient approach as the primary level, which is a primary healthcare approach.
- Tertiary level healthcare institutes which are affiliated with universities. These are medical laboratories with advanced technology and intensive care units with advanced medical equipment to manage critical care patients.

According to De Beer et al. (2011:6) and Kinfu (2013:1004), healthcare systems have been recreated before South African’s first democratic elections, hospitals were assigned to particular racial groups and mostly were concentrated in white areas. In 1994 the dismantling began and transformation was now under way. However, high levels of poverty and unemployment mean health care remains the burden of the state. Provincial health department provide and manage comprehensive health services via a district- based, public health care model, this gives access to health care to all South Africans rich or poor. Furthermore, De Beer et al. (2011:6) stated that, the public healthcare system has been overloaded and has not yet been able to meet the health needs of the community. The intensive care unit is a high technology unit with expensive equipment, where the nursing staff plays the main role in ensuring patient care. The nurse, plays a chief role in determining the efficiency, effectiveness of
utilisation of resources and the sustainability of the healthcare system within the organisation, as stated by Pillay (2009:1). Hence, the nurses in critical care units need to specialise in critical care in order to be able to provide care to patients who are critically ill or at risk of experiencing life threatening conditions. However, in intensive care units, the rendering of quality care is complex and can only be provided by medical and nursing experts that are specialised in critical care (Scribante & Bhagwanjee, 2007:1319).

According to Bhagwanjee and Scribante (2007:1320), a large number of nurses which is 43% of the population in intensive care units, have 0–5 years of experience. This indicates that there is a deficit in knowledge of the nurses who are working in intensive care units, and this has a negative impact on the quality of care rendered to critically ill patients. Hence, it is important to introduce a transformational leadership style in nursing management which includes building trust, demonstrating integrity, inspiring others, encouraging others and coaching (Malloy & Penprase, 2010:715), in order to create and maintain a work environment which not only promotes positive patient outcomes but also positively influences a team and individual nurses. The researcher stated that, although there are various types of leadership styles available, transformational leadership was chosen as it optimises organisational change and change outcomes.

2.4 ORGANISATIONAL CULTURE

Organisational culture is defined as a shared values system, developed over time, and that guides members on how to solve problems, adapt to the external environment and manage relationships (Huber, 2014:57). Furthermore, Tohidi and Jabbari (2012:859) state that, organisational culture makes a difference because it has a great effect on behaviour. The understanding of cultural issues is important to understand what goes on within the organisation, and most important is the effect on the outcomes. Each organisational unit has cultural norms and values that blend the social realities and features that shape interaction among staff, patient and families (Huber, 2014:57). Bono, Heling and Borg (2013:2), agree that organisational culture reflects assumptions about clients, employees, missions, products and activities.
Culture is the set of values, beliefs and assumptions that are shared by members of an organisation. The purpose of culture is to provide a mutual connection so that members know how to relate to one another and to show others, who are outside of the organisation, what is valued (Huber, 2014:57). Tohidi and Jabbari (2012:859) agree that the main components of culture are the organisation’s mission and goals, work environment, leadership style, organisational practices and policies, recruitment and career development, benefits and rights.

According to Yoder-Wise (2015:585), organisational culture is defined as the attitudes, behaviours and policies evident in an organisation that create the environment and operation of the workplace. Organisational culture forms the glue that holds the organisation together and stimulates employees to commit to the organisation and to perform. Organisational culture refers to a system of shared assumptions or meanings held by members that distinguishes one organisation from another (Werner et al., 2011:1).

The culture of an organisation has a negative impact when the culture and leadership style focuses on those operations which, get the job done and less on the emotions and opinions of employees or followers. Huber (2014:56), further explains that, for a nurse to function effectively in an organisation, a solid understanding of organisational culture, characteristics and operations is essential. The manner in which the staff understand organisational culture, leaders’ restrictions, and translate the implied values to the unit-level, have a direct effect on the quality of patient care. There are various definitions related to culture and organisational culture, which are commonly explained as the values, beliefs and norms needed within the organisation. According to Speroff, Nwosu, Greevy, Weignier, Talbot, Wall, Desphande, France, Ely, Burgess, Engelbright, Walliams & Ditus (2010:592), stated that organisational culture needs team work and development for quality improvement, whereas bureaucratic, hierarchical cultures, which promote stability and resistance to change, are less suitable for quality improvement. Hence, the research discussed the types of culture.

2.4.1 Types of Culture

There are different views on the types of culture. Some state four types of culture and others as two dimensions or axis. Culture can be seen as a way to control the
behaviour of people in organisations. The aspects of external and internal environments suggest that culture is learned through dynamics of interaction of external adaptation and internal combination (Yahya & Beck, 2011:345). Together, the two-dimension form four quadrants; clan, adhocracy, hierarchy and market. Each quadrant represents a distinct set of organisational effectiveness indicators (Cameron & Quinn, 1999).

According to Tuan (2010:253), the competing value framework (CVF) was developed by Quinn (1988) into an organisational model of predicted on two dimensions. One dimension is the organisational process, which entails organic versus mechanistic. Moreover, Yahya and Beck (2011:345), refer to dimensions as axis of framework, whereby the vertical axis represents a conflicting dynamic of change and stability. The focus on change concerns issues of flexibility, decentralisation and also differences. The focus of stability represents matters such as centralisation and integration. Furthermore, the horizontal axis shows the conflicting focus on the internal environment, which focuses on integration, and the external environment, which represents interaction with the environment as well as competition (Yahya & Beck, 2011:346).

Cameron and Quinn (1999), cited by Yahya & Beck (2011:345), stated that the combination of these axes results in four types of culture. The clan culture is composed of commitment, teamwork and driven by common goals and values. According to Suppiah and Sandhu (2010:467), clan culture is a family type, a friendly workplace where people share a lot about themselves, and is an organisation which ensures employee involvement programs and high commitment of employees to the organisation. The leader type is a facilitator, mentor and team builder.
Adhocracy culture organisations dominant in this culture type are generally organic and not mechanistic. This is a dynamic type of culture where the employees take risks. Leaders are seen as innovative entrepreneurs and risk takers (Suppiah and Sandhu, 2010:467). The experiment and innovations are the bonding materials within the organisation. The organisation promotes individual initiative and freedom, the availability of new products or services is seen as a success. The aim and long-term goal is to grow and treat new resources.

The market culture is competitive and productive and basically forms the foundation of a market culture driven organisation. Knowledge becomes a substitution for power and this disrupts the sharing of knowledge, especially unstated knowledge. The types of leaders are producers, competitors and they conduct transactions with other
stakeholders to create competitive advantages (Suppiah & Sandhu, 2010:467). The market culture ensures a quality improvement strategy by measuring client preferences, improving productivity, creating external partnerships, and involving customers and suppliers. The hierarchy culture is characterised by formalised and multiple hierarchical structures. The procedures decide what the employee does, standardised procedures, formal rules and policies govern people’s actions and keep the organisation together (Suppiah & Sandhu, 2010:467). The structures and power relationships would act as a barrier to understand knowledge sharing behaviour. The leader is a coordinator, monitor and organiser.

2.4.2 Organisational Culture in Healthcare

The healthcare environment is forever changing. The nurse manager needs to know the organisational culture at their workplace and how it is integrated with and supports their units’ missions and goals. The organisational culture is multifaceted, consisting of many different factors that influence the way things are understood, judged and valued. It has a great effect on behaviour (Kaufman & McCaughan, 2013:53; Tohidi & Jabbari, 2012:859). Huber (2014:56) agrees that culture is a multifaceted phenomenon which is difficult to understand and unravel. On the other hand, the healthcare system is extremely complex, with delivery of care dependent on good communication and collaboration between providers, patients and families (Huber, 2014:56). The culture might be an important factor associated with the effectiveness of a wide diversity of organisation across a range of sectors, including healthcare. For example, healthcare cultures that emphasize group association, teamwork and management have been associated with great implementation of continuous quality improvement practices. According to Acar and Acar (2012:684), the organisational culture helps the healthcare professional to improve, enrich teamwork and the culture must promote values, teamwork and support team members and their opinions. There are various factors of culture that the healthcare, as an organisation can adopt, such as evidence-based practice, which can enhance services for quality care and the transformational leadership style that can improve leadership skills of leaders within an organisation. Furthermore, Yucel, Karatas and Aydin (2013:415) emphasised that organisational culture affects the behaviour of the staff in an organisation and the values shaping the institution. In order for a nurse to function effectively in an
organisation, a concrete understanding of organisational culture, characteristics and procedures is important (Huber, 2014:56).

The organisational culture affects the quality of nursing care and patient care within the healthcare system. According to Huber (2014:57), each organisational unit has cultural norms and values that blend the social realities and features that shape interactions among the staff, patients and families. Therefore, the manner in which the staff perceives organisational culture, leaders’ restrictions and interprets implied values to the unit level, has a direct effect on the quality of care rendered to a patient (Huber, 2014:57). According to the study in Taiwan by Hsiao, Chang and Tu (2012:10893), the findings were that the subculture had a greater influence on commitment than hospital organisational culture, and that the hospital organisational culture had a strong and positive influence on organisational commitment. Therefore, the study helped to improve the understanding of how and why nursing leaders could develop hospital culture to promote organisational commitment (Hsiao et al., 2012:10893).

According to Speroff et al. (2010:592), the conclusion in the study was that hospitals differ in organisational culture and the type of culture relates to the safety environment within the hospitals. Hence, the results of the above-mentioned study advise that a healthcare organisational culture is an important factor in the development of its patient safety and in the successful implementation of quality improvement initiatives.

2.4.3 Organisational Culture and Transformational Leadership

Transformational leaders have a direct effect on improvement by means of generating a strong organisational culture with values and a vision for the entire population. According to Shafie, Siti-Nabiha and Tan (2011:39), business culture is controlled by the workforce or organisational employees and leadership. This shapes organisational culture in order to compete in a global market. According to the study done by Shafie et al. (2011:39), in order to adopt more open and appropriate ideas and best practice, both organisational culture and leadership plays a vital role. In the business perspective, the employees within an organisation have a high organisational culture loyalty, motivation and job satisfaction, usually with minimum absenteeism, promote a positive work environment and build the organisational success. An organisation that
adopts the organisational culture, which is driven by leaders who embrace a transformational leadership style, has a greater positive impact on employees’ behaviour, job satisfaction and change outcomes. According to Bowers (2013:64), the organisation that is goal orientated, willing to accept change, with resources and infrastructure that encourages a culture of evidence-based practices through leadership has increased chances of positive change outcomes.

2.5 TRANSFORMATIONAL LEADERSHIP

Transformational leadership is a managerial style that seeks to inspire employees by charismatic speech, motivation and intellectual stimulation. Transformational leadership is described as a leadership style that promotes effective communication, sharing information on consistent basis and articulates a strong vision to subordinates, while a learning culture is one that supports values that include transparency, accountability, valid information and orientation issues (Salk & Schneider, 2009:70). It is ultimately the transformational leader who creates an emotional relationship with followers and inspires higher values which include demonstrating truthfulness, inspiring others, encouraging others and coaching.

It is important to encourage transformational leadership in nursing in order to ensure effective leadership, establishment of relationships with followers and to encourage them to succeed, because nursing requires strong, consistent, and knowledgeable leaders (Rolfe, 2011:54). Transformational leadership influences followers and the organisation. The followers or employees are enhanced on satisfaction, commitment, performance and empowerment. At the organisational level, the transformational leadership enhances everyone within the organisation to have a positive attitude in knowing that everyone is empowered to work harder, aim higher and to change the work environment. Rolfe (2011:56) emphasised that, transformational leaders are champions in communication and are representatives for the organisational vision. Hence, Jandaghi, Martin and Farjarmi, cited by Jordan et al. (2015:8), conclude that transformational leadership, together with a positive culture, has an effect on organisational change outcomes, success and performance. In a study conducted in six private hospitals within the Eastern Cape region, the results suggested that there is a positive relationship between transformational leadership, organisational culture and change outcomes, hence the researcher discovered the need to conduct a similar
study within public hospitals in Nelson Mandela Bay Municipality, specifically in intensive care units.

The difference between two types of leadership styles, “one is transactional, which refers to those leaders who are rigid and are task-orientated. These types of leaders believe that subordinates should comply with the protocols and standards that are put in place by management” (Marchionni & Ritchie, 2008:269). Whereas, “transformational leaders encourage subordinates and acknowledge individual differences in the team, so that the team members can take on more responsibility, become empowered and are able to share work related information” (Jordan et al., 2015:6).

According to Yoder-Wise (2015:38), the key practices of transformational leadership that need to be considered, include challenging the process, which involves questioning the way things were done in the past and thinking creatively about new solutions to old problems, motivating a shared vision or bringing everyone together to move towards a goal that all accept as desirable and achievable and empowering others to believe that their extra effort will have rewards and will make a difference. The transformational leader must take an active role in change management and encourage staff by giving praise for a job well done.

2.5.1 Dimensions of Transformational Leadership

The dimensions of transformational leadership assist the leader to be able to establish a relationship with the followers and encourage the followers to succeed, to aim for higher performance and to transform the work environment. According to Bass and Avolio (1989), the four dimensions are as follows: idealise influence, influential motivation, intellectual stimulation and individual consideration.

2.5.1.1 Idealised Influence

The leader provides vision and a sense of mission, instils pride, gains respect and trust. Such leaders excite and inspire subordinates. The leader is recognised as a role model, an individual who provides a vision and support principles that maintain and further the mission of the organisation. The transformational leader's vision is followed with confidence, determination and focus. In clinical practice, healthcare personnel
working with the transformational leader with an idealised influence, respect the followers and are proud to be associated with them (Sayeed & Shanker, 2009:596, Gabel, 2013:55).

2.5.1.2 Influential Motivation

The leader acts as a model for subordinates, communicates a vision and uses symbols to focus efforts. This dimension is a measure of the leader's ability to engender confidence in the leader's vision and values. The transformational leader is able to communicate her vision, principles and adherence to the healthcare mission effectively. Leaders with influential motivation are able to motivate and energise subordinates based on their abilities to convey their vision and values that reflect strongly believed values. (Sayeed & Shanker, 2009:596; Gabel, 2013:55).

2.5.1.3 Intellectual Stimulation

The leader provides continuous and crucial feedback for subordinate development, besides serving linking-pin functions amongst his organisational members so as to lead them with an organisational mission. Transformational leadership demonstrates intellectual stimulation by challenging subordinates to give information on the state of affairs at present and to address difficult problems by coming up with new solutions. The leaders support subordinates in their effort, while encouraging them to demonstrate initiative and independent problem solving skills. In healthcare, transformational leaders challenge subordinates to develop new and well-organised ways to provide medical care to patients (Sayeed & Shanker, 2009:596; Gabel, 2013:55).

2.5.1.4 Individualised Consideration

The leader stimulates followers to rethink about old ways of doing things and to reassess their basic values and beliefs. This dimension is concerned with the degree to which followers are provided with interesting and challenging tasks and encouraged to solve problems in their own way. The leader demonstrates individualised consideration by recognising the subordinates’ individuality, personal needs for growth and their unique development potential. Leaders provide mentorship or coaching to
subordinates to enhance their growth and development (Sayeed & Shanker, 2009:59; Gabel, 2013:55).

### 2.5.2 Transformational Leadership in Healthcare

The improvement in healthcare has become a major economic and political commitment internationally as many countries face pressure to improve structure and their healthcare delivery system. The healthcare system is transforming and so too must the nurse leaders transform organisational values, beliefs and behaviours to lead people where they need to be in the future (Huber, 2014:14). The transformational leader focuses on shared determinants and mutual growth and development. The health system consists of different professional groups, departments and specialities with difficulties. Non-linear interaction within the group and the complexity of the health system is in parallel as a result of constraints relating to multi-directed goals and multidisciplinary staff (Al-Sawai, 2013:285). Hence, transformational leadership needs to be capitalised on the variety of the organisation as a whole and the effective use of resources, while encouraging personnel to work towards a common goal. According to (Duygulu & Kublay, 2010:634) the process of the current healthcare system in the European Union and Turkey's hospital accreditation and healthcare system regulations, indicate that healthcare services are undertaking an essential change. The adaptation to this change is ensuring that the managers expand the possibilities and adapt a more effective leadership role in achieving long-term goals. In a study conducted in the United States and Europe, the result was that well-managed hospitals with clinically qualified leaders, produced a standard of quality care, therefore highlighting the importance of good leadership (Dorgan, Layton, Bloo, Homke, Sadun & Van Reenen, 2010) Transformational leadership entails many characteristics which indicate a potential value in the healthcare environment by creating a healthy work environment, improving job satisfaction and reducing staff turnover (Gabel, 2013:55; Duygulu & Kublay, 2010:634; Salk & Schneider, 2009:73). Transformational leadership is related to empowering others to participate in a collective purpose, by working together to achieve a vision of a preferred future within healthcare system. The healthcare system needs, demand that the frontline nurses maintain the expertise and information necessary to take action to resolve problems, and they need
leadership that is interactional, relational and transformational at all levels (Huber, 2013:16).

Nurses who work with multidisciplinary team members in the healthcare sector they need to have a professional nurse in charge of the unit, who is an expert in directing change, dealing with unexpected change, who will achieve a success in guiding the staff towards achieving the appropriate skills due to highly related to leadership behaviour demonstrated by the unit manager. However, to achieve these goals, the nurse needs to express leadership skills, and especially transformational leadership skills (Duygulu & Kublay, 2010:634). Hence, the transformational leadership behaviour is seen as an essential element in increasing attachment of employees in an organisation. A transformational leadership promotes a positive change within an organisation, where it would be difficult to do so without committed followers (Rolfe, 2011:56).

2.6 ORGANISATIONAL CHANGE OUTCOMES

A change is to make something different from what it was which, most of the time, is to improve or for development purposes. According to Huber (2014:38), change is a modification to make something different, a complex process that occurs over a period and is influenced by any number of unpredictable variables. Booyens (2014:472) agrees that change happens when something is made different from what it was. Kelly (2011: 298) highlighted that the outcome of change can be the same but the effort made to get to change is different. There are various changes that can be done within the organisation, such as personal change, professional change and organisational change. This study focused on organisational change, which is a major method to better services with the aim of achieving quality. Change is the universal element of society which is needed in the healthcare environment of today in order to enhance patient care (Huber, 2014:37). According to Werner et al. (2008:381), “organisational change is viewed as a management effort to move an organisation from a current state to some desired future state to increase organisational functioning”. These efforts are frequently described as planned change, and consist of top-down commencement, communication and implementation. The organisational change comprises of an intended modification in an organisation to improve competence in general by adopting a new idea or behaviour (Booyens, 2014:480, Kelly, 2011:299). A change
that is not planned my cause stress and a great deal of anxiety. An organisational change that is planned and purposeful is generally better accepted by employees (Kelly, 2011:299). Organisational change is made to meet the organisational goals. Furthermore, Huber (2014:37) stated that change can be initiated in response to an external force or within the organisation.

According to Huber (2014:37) and Tuan (2010:255), external healthcare changes may include changes in compensation, regulations and requirements for accrediting bodies. On the other hand, internally introduced changes may be a unit that wants to change its practice model or in service training that wants to integrate evidence-based practices. Cable (2014:55) stated that it takes leadership to make the change beneficial. Kelly (2011:299) clearly indicated that it is essential that proper care and planning is made ahead of change processes, so that the employees do not resist change and make the implementation of change more stressful than necessary.

According to Williams, Perillo and Brown (2015:39), employees need to sense that their contributions and thoughts are valued and that they feel that they have some level of power to approve change within the organisation. This will positively influence patient outcomes. In healthcare, organisational goals are usually always related to positive patient outcomes. For example, if the employees have knowledge that they can improve patient outcomes through change in their clinical practices developed by themselves or their colleagues, it is more likely to motivate them to use evidence-based practices (Williams et al., 2015:39). The study done by Williams et al. (2015:39), concluded that the use of evidence-based practice is important in providing the highest level of patient care. Therefore, it is important for healthcare providers to be able to keep knowledge and practices current and relevant. According to Huber (2014:39), leaders must be able to assess and understand the employee’s response to change, political and power issues that affects the initiation of change and to develop strategies on organisational or unit culture that facilitate and sustain change.

According to Huber (2014:40), a learning organisation is about change and helping people to embrace change. Hence, it is important to describe the following five learning disciplines which ensure positive organisational change outcomes. The five learning disciplines are as follows:
1. **Personal mastery**: This refers to both the individual’s capacity to create desired results and the creation of an environment or culture in which others can do the same.

2. **Mental models**: This is how individuals develop, create and project the personal vision they have of the world and understand how these personal views affect their decisions and actions.

3. **Shared vision**: Sharing preferred future visions within a group for developing plans to get to that preferred future.

4. **Team learning**: A sharing of learning skills and conversations so that the group can develop skills and learning greater than the individual part.

5. **Systems thinking**: Envisioning the organisation as an interrelated system rather than as unrelated parts.

### 2.7 CHAPTER SUMMARY

The chapter gave a brief overview of healthcare in South Africa, various types of cultures that enhance organisational culture and that could influence change outcomes. The organisational culture and transformational leadership in the context of public intensive care units were discussed as well as organisational change outcomes.
3.1 INTRODUCTION

Chapter one provided a brief overview of the research topic, which included the research problem, research objective, research design, research methods and the ethical considerations that were maintained during the research study. Chapter two encompassed a narrative literature review to provide the reader with more understanding on the research topic, which is the relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay.

The focus of this chapter is to explain the research design and method used for this study. An overview of the research design, as well as the research method, will describe the manner in which the research question was answered and how the research objectives were approached.

3.2 RESEARCH OBJECTIVE

The objective of the study was to explore whether a supportive organisational culture, transformational leadership and organisational change outcomes were prevalent in public intensive care units within Nelson Mandela Bay. Furthermore, the study investigated the relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay.

3.3 RESEARCH DESIGN

A research design is the blueprint for conducting a study that maximises control over factors that could interfere with the validity and findings of the study (Grove, Burns & Gray, 2013:692). Polit and Beck (2012), agree that research design is the overall plan that helps for obtaining answers to the research question being asked and for handling various challenges that could be encountered during the research process. According to LoBiondo-Wood and Haber (2010:159), the research design has three functions:
1. to give rise to the blueprint or plan for the research study;

2. to test research questions and hypotheses; and

3. to involve structure and strategy.

A research design is useful in guiding the researcher to plan and implement the study. Hence, the researcher considered a positivist research paradigm with a quantitative design that is an explorative, descriptive and contextual approach in preparing the research study in investigating the relationship between organisational culture, transformational leadership and change outcomes in public intensive care units.

### 3.3.1 Quantitative Research

A quantitative research design is described as a formal, objective and systematic process implemented to obtain numerical data for understanding aspects of the world as stated by Grove et al. (2013:23). According to O’Leary (2010:105), quantitative research is often characterised by an objective and positivist search for singular truths that depend on the hypotheses, variables and statistics that are usually on a large scale but without much depth in the form of a questionnaire. Quantitative research is designed to test hypotheses and use deductive reasoning to generate estimations that are tested in the real world. Quantitative research is used to describe the variables, examine relationships between variables and to determine the cause and effect interactions between variables (Grove et al., 2013:23).

Quantitative research has the following characteristics as illustrated by Brink et al. (2012:11).

- Uses structured procedures and formal instruments to collect information
- The research is objective or unbiased
- Analyses numeric information through statistical procedures
- The study usually involves a large number of participants

This research study was quantitative in nature as it used a numerical data analyse to explore the relationship between variables. Data was collected by means of a questionnaire from registered nurses and enrolled nurses in public intensive care units
within Nelson Mandela Bay. Data analysis involved the use of inferential statistics and Excel to capture and to analyse the data. Data is presented in-depth in Chapter four.

3.3.2 Explorative Research

Exploratory research increases the knowledge within a field of study and aims to generalise the study to a larger population. Exploratory study is used when the researcher intends to formulate new ideas and to address the research question (Struwig & Stead, 2013:6). An explorative research helps the researcher to investigate a phenomenon about which little is known and this type of research gathers a great deal of information from a small sample. Explorative research may investigate a phenomenon that is perhaps unfamiliar or new. According to Babbie (2013:91), there are three purposes of exploratory research:

1. to satisfy the researcher's interest and desire for better understanding;
2. to test the feasibility of undertaking a more extensive study; and
3. the analysis of selected cases.

An exploratory design was used in the study to explore whether a supportive organisational culture, transformational leadership and organisational change outcomes were prevalent in public intensive care units within Nelson Mandela Bay.

3.3.3 Descriptive Research

According to Polit and Beck (2012:236), the purpose of descriptive research is to observe, describe and document characteristics of a situation. Grove et al. (2013:215) agree that descriptive research is created to gain more information about characteristics within a particular field of study. Descriptive research attempts to describe something. The main purpose of descriptive research is to describe relationships between variables. This research study was descriptive as it aimed to describe and categorise information by means of a structured questionnaire, which reflected the relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay.
3.3.4 Contextual Research

The study was conducted in the context of four different public intensive care units in Nelson Mandela Bay. The four intensive care units comprised of a total of twenty-seven beds. Twenty-two beds for adults and a five-bedded neonatal unit. The study was conducted in public hospitals which are hospitals that are funded by government and are not profit related. Most of the patients who are admitted in intensive care units are critically ill with challenging disease profiles, and the units are composed of the latest technology, such as cardiac monitors, ventilators and syringe pumps. The nursing staff in these units are mostly permanently employed and there are very few that are on probation, trained speciality in critical care or have experience working in the intensive care unit.

3.4 RESEARCH METHOD

A research method is the technique used to structure a study and to collect and analyse information in a systematic manner (Polit & Beck, 2012:567). The research method explains the population, sampling, data collection method, data processing and analysis.

3.4.1 TARGET POPULATION

The target population refers to the entire set of individuals or elements who meet the sampling criteria (Grove et al., 2013:351). Polit and Beck (2012:569) concur that the target population is the entire population in which the researcher is interested from whom data can potentially be collected. The target population is the group from which the researcher aims to draw a sample. In this study, the research target population refers to all of the registered nurses and enrolled nurses working in public intensive care units within Nelson Mandela Bay (See Table 3.1).
Table 3.1: Population in public hospitals

<table>
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<tr>
<th>Settings</th>
<th>RN's</th>
<th>ENs</th>
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<tbody>
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</tr>
<tr>
<td>Hospital 1</td>
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</tr>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>56</td>
<td>4</td>
</tr>
</tbody>
</table>

At the time of data collection, a total of sixty participants who partook in this study were working in public intensive care units within Nelson Mandela Bay.

3.4.2 Sampling Method

A sample is a subsection of the population which are selected according to a certain criterion to represent the population. Sampling involves the selection of a group of people, events, behaviours or other elements that represent the population being studied (Grove *et al.*, 2013:351). Sampling may provide a more accurate picture of the phenomenon under investigation than would the measurement of all the population elements.

There are two methods of sampling, non-probability and probability sampling. Probability sampling make use of a random sampling procedure to select a sample from elements or members of a population. Whereas non-probability sampling is a process in which a sample is selected from elements or members of a population through non-random selection (Brink *et al.*, 2012:215). The basic principle of non-probability sampling technique in quantitative is that the sample is selected based on the subjective judgement of the researcher than the random selection. The disadvantage of non-probability sampling not every In this study, a non-probability sampling method was used. The registered nurses and enrolled nurses who volunteered to participate in this research study are working in the intensive care units of the public hospitals. Those registered nurses and enrolled nurses that were on sick, annual and study leave including those who refused to participate were excluded in this study. Seventy-five questionnaires were distributed to professional nurses
working in intensive care units and sixty questionnaires were received back. Thus, the response rate was eighty percent of the total questionnaires distributed.

3.4.3 Data Measuring Instrument

Data collection is the precise and systemic gathering of information relevant to the research purpose or the specific objectives, questions or hypotheses of the data (Grove et al., 2013:45). In quantitative research, the data collection is usually numerical. Planning data collection will enable the researcher to anticipate problems that are likely to occur and to explore possible solutions. In this research, data collection was done by means of questionnaire. A questionnaire is a predetermined tool which is constructed prior to the commencement of data collection. The questionnaire in this research study included a Likert-type scale, with responses ranging from ‘strongly agree’ to ‘strongly disagree’ and one open-ended question for each section which made three open-ended question in total. Nominal and ordinal scales were used to capture demographic data. The questionnaire construction was based on the narrative literature review and was aimed at measuring the variables in the conceptual model of the study.

The questionnaire comprised of the following sections:

- **Demographic data**: Four items were developed in order to explore the demographic profile of the participants.

- **Organisational culture**: A 15-item measurement was developed based on the competing value framework developed by Cameron and Quinn (1999). It included a 5-point Likert scale. Item 16 was added as an open-ended question to assess the opinion of the characteristics of organisational culture that could influence change outcomes.

- **Transformational leadership**: Thirteen items to measure transformational leadership were sourced from Bass and Avolio (2000). It included a 5-point Likert scale. Item 14 was added as an open-ended question to identify the leadership characteristics that influence change outcomes.

- **Organisational change outcomes**: A 15-items with a 5-point Likert scale was sourced from Ramachandran (2013), Weiner (2008) and Werner et al., (2011).
Item 16 was added under this section as an open-ended question to name change outcomes that were evident in the unit.

3.4.4 Data Collection Method

Before commencement of the research, hospital management (Annexure D) granted a study consent, and respondents agreed to participate in the study by signing the consent form (Annexure A). The hospital was visited on pre-arranged days over a two-week period. This was done to ensure that both day and night shifts were covered for data collection. A sealed box was placed in the unit manager's office where all completed questionnaire was deposited. The researcher also aimed to be present during most of the data collection periods, although this was not always possible due to nursing shifts. Where this was not possible, the unit manager facilitated the process of handing out the questionnaire and ensuring they were placed in the sealed box in her office after completion. The unit manager had no access to the questionnaire before she completed hers as a participant. Questionnaires were placed in sealed envelopes. In this manner, it was ensured that responses obtained from the unit manager were free of bias.

The researcher handed out questionnaires to the participants and remained in the unit for at least 15 minutes to clarify any uncertainties about the questionnaire. Participants were requested to complete the questionnaire by ensuring that there are no spaces left and that all questions were answered. Participants were instructed that the questionnaires had to be completed before the end of their shift. At no point, could they consult textbooks, the internet or their peers in answering the questions. Informed consent (Annexure A) and letters for the participants (Annexure F) were explained to the participants. The consent form was signed by all the participants who agreed to participate. The researcher ensured that consent forms were signed before the questionnaires were handed out. Consent forms were separated from the questionnaires to ensure confidentiality. Participants were reassured that confidentiality and anonymity would be maintained throughout the research process.

The researcher returned to the unit to collect the sealed box. The researcher was the only person to access the sealed box. A total number of 75 questionnaires were
handed out and 60 were returned, achieving a response rate of 80%. Three participants refused to participate and twelve questionnaires were never returned.

3.4.5 Pilot Study

A pilot study is a small-scale study conducted prior to the main study on a limited number of participants from the population at hand (Brink et al., 2012:174). Pilot study is a small version of the proposed study conducted to develop or refine the methodology, such as treatment, instruments or data collection process (Grove et al., 2013:702). Through the conduction of a pilot study, flaws can be identified that could have severe consequences on the study in terms of scientific value, flexibility, time, money and effort. The pilot study can be seen as a rehearsal for the main study. According to Brink et al. (2012:175), the purpose of a pilot study is as follows:

- to investigate the feasibility of the proposed study;
- to detect possible problems in the methodology of the proposed study;
- to identify a problem with the design of the proposed study;
- to determine whether the sample is representative of the population or whether the sample technique is effective; and
- to examine the reliability and the validity of the research instruments.

Before conducting the main study, a pilot study was performed with three participants. The letter for the participants, which entailed the objectives of the study was explained to the participants and informed consent was also explained. The participants agreed to participate. Informed consent was signed and afterward each participant was given a questionnaire. The researcher remained in the unit and timed the participants whilst filling in the questionnaire. The pilot study was done in the same conditions in which the researcher intended to conduct the main study. No problems were encountered in answering the questionnaire, questions were clearly understood.

The results of the pilot study were not included in the main study and the questionnaires will be kept in a safe place for five years, after which they will be discarded. To prevent bias, the three respondents were also excluded from the main study as they had already seen the questionnaire. The respondents that participated in the pilot study were not included in the sample size (n=60) that partook in this study.
3.4.6 Data Analysis

Data analysis is conducted to reduce, organise and give meaning to the data (Grove et al., 2013:46). In quantitative research, data analysis tends to take place after all of the data has been collected. Furthermore, Grove et al. (2013:46) highlight that, the choice of analysis techniques implemented is determined primarily by the research objectives, question or hypothesis, the research design and the level of measurement achieved by the research instruments. In this study the researcher used descriptive and inferential statistics to analyse and describe the data.

According to Plichta and Garzon (2009:14), statistical analysis of the data occurs in three stages. First, the data must be cleaned. Secondly, descriptive statistics are used. And thirdly, each hypothesis is listed with an inferential test that will be used to test it. Cleaning of data involves making certain that all of the variables have valid and usable values. The next step in cleaning data is to check for variables with missing data. A questionnaire must not have more than three missing or incorrectly marked answers in order to be included in the data analyses. Data was coded, in which the variables were categorised as follows:

- Years of experience in the intensive care unit: <1 year = 1; 1–4 years = 2; 5–9 years = 3; 10–19 years = 4 and 20+ years = 5.
- Gender: male = 1 and female = 2.
- Age: <25 years = 1; 25–29 years = 2; 30–39 years = 3; 40–49 years = 4; 50–59 years = 5 and 60+ years = 6.
- Position held in the intensive care unit: hospital manager = 1; unit manager = 2; permanent registered nurse = 3; permanent enrolled nurse = 4 and clinical facilitator/mentor = 5.

A descriptive statistic is the summary of statistics that allows the researcher to organise the data in a way that gives meaning and facilitates insight, such as frequency distributions and measures of central tendency and dispersion. The common practice on descriptive statistics is to create tables that display sample socio-demographic characteristics, such as age, gender, ethnicity and level of education (Plichta & Garzon, 2009:15). In this study, descriptive statistics were used to describe the sample
in terms of demographic characteristics by means of measures of standard deviations, central tendency and mean.

Inferential statistics are designed to allow inference from sample statistics to a population parameter, commonly used to test hypothesis of similarities and differences in a subset of the sample under study (Grove et al., 2013:697). The hypothesis, including the independent variables and the dependent variables in each hypothesis should be clearly tested. Inferential statistics can help to generalise your findings from your sample to the larger population. Inferential statistics were used to draw inferences about the relationship between the organisational culture, transformational leadership (independent variables) and change outcomes (dependent variable). Pearson product moment correlation statistics was used to investigate the relationship between various factors. Regression analysis was utilised to investigate the effect of dependent variables on independent variables. Due to the strong correlation between independent variables, it was not feasible to conduct regression analysis with the organisational culture and leadership. A Chi-square test was used to investigate the relationship between variables in order to test the hypothesis. This showed that there was a relationship between organisational culture, transformational leadership and change outcomes. An R-square test was used to determine if the proportion of variation in the pendent variable accounted for the variation in the independent variable. The data was presented in the form of frequency tables and bar graphs for each participant’s response in each section, was created by a statistician using Microsoft Excel and Statistica version 12.

According to Brink et al. (2013:210), content analysis is a data-analysis method that examines communication messages that are usually in written form. Content analysis was done by the researcher for the three open-ended questions under sections B, C and D. In these sections content analysis was performed by going through response of the participants and the researcher came up with three themes, which include good communication, democratic leader and leader with conviction. To be discussed further in chapter four.
3.4.7 Measurement and Data Quality

The quality of research studies is of the utmost importance in conducting research. Unless the measurement tools' validity and reliability reflect the concepts being tested, conclusions drawn from the empirical phase of the study will be invalid (LoBiondo-Wood and Haber, 2010:65).

3.4.8 Validity

Validity is the ability of an instrument to measure the variable that is intended to be measured.

The word validity includes the truth, strength and value of the data. According to Parahoo (2006:80), the concept of validity reflects the accuracy with which the findings reflect the phenomenon being studied. In a quantitative study, the quality of the tool determines the validity provided and that the sources of bias are controlled. The main sources of bias are participants, researchers, methods of data collection, the environment and the phenomenon as stated by Parahoo (2006:407). An instrument is considered as valid if it reflects the characteristics that are being measured. There are various types of validity, however only two types apply to this research study, namely content and face validity.

Content validity is the degree to which an instrument covers the scope and range of information that is required. According to Grove et al. (2013:690), content validity examines the extent to which the measurement method includes all of the major elements relevant to the construct being measured. Evidence for content-related validity is obtained from the literature, and is representative of the relevant populations and content experts. The questionnaire was discussed with experts in the field, such as the research supervisor and the unit manager in the intensive care unit.

Face validity is a subjective determination that an instrument is adequate for obtaining the desired information. On the ‘face’ of it, the instrument appears to be an adequate means of obtaining the desired data (Brink et al., 2012:212). Face validity verifies that the instrument gave the appearance of measuring the content desired for a study, which was done by the statistician.
### 3.4.9 Reliability

Reliability refers to the consistency of a particular method in measuring or observing the same phenomenon (Parahoo, 2006:36). Internal consistency of a measuring scale can be determined by using the Cronbach’s alpha reliability coefficient test. The coefficient ranges between 0.00 and 1.00 with coefficients higher than 0.80 being the most reliable. Babbie (2013:190), agrees that another way to help ensure reliability in getting information from people is to use measures that have proved their reliability in previous research. The researcher in this study used an instrument that was validated in a previous study and proved to be reliable as a Cronbach’s alpha score of 0.80 or above was obtained for all the factors, with leadership obtaining the highest score of 0.97 (Jordan et al., 2015:5). The internal reliability was tested again in this study and for full questionnaire proved to be very reliable with Cronbach’s alpha coefficient score of 0.8. All scores are indicated in Table 3.2. Thus, proving the data collection instrument to be reliable. The pilot study was also conducted to ensure reliability of the questionnaires.

**Table 3.2: Cronbach’s alpha coefficients**

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC1 Teamwork</td>
<td>0.88</td>
</tr>
<tr>
<td>OC2 Innovation</td>
<td>0.82</td>
</tr>
<tr>
<td>OC3 Patient care</td>
<td>0.87</td>
</tr>
<tr>
<td>OC4 Professional development</td>
<td>0.82</td>
</tr>
<tr>
<td>OC Organisational culture</td>
<td>0.87</td>
</tr>
<tr>
<td>L1 Idealised influence of charisma</td>
<td>0.90</td>
</tr>
<tr>
<td>L2 Inspirational motivation</td>
<td>0.92</td>
</tr>
<tr>
<td>L3 Individualised consideration</td>
<td>0.83</td>
</tr>
<tr>
<td>L4 Intellectual stimulation</td>
<td>0.90</td>
</tr>
<tr>
<td>L Leadership</td>
<td>0.94</td>
</tr>
<tr>
<td>OCO1 Patient and family-related</td>
<td>0.83</td>
</tr>
<tr>
<td>OCO2 Staff-related</td>
<td>0.95</td>
</tr>
<tr>
<td>OCO3 Organisational care practices</td>
<td>0.85</td>
</tr>
<tr>
<td>OCO Organisational change outcomes</td>
<td>0.88</td>
</tr>
</tbody>
</table>
3.5 SUMMARY OF THE CHAPTER

In this chapter, a comprehensive explanation of the research method, which entails target population, sampling method, pilot study, data collection and data analysis, was provided. This research study was based on a quantitative, explorative, descriptive and contextual design in order to investigate the relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay. Data analysis will be discussed in-depth in Chapter four.
CHAPTER FOUR

EMPIRICAL RESULTS

4.1 INTRODUCTION

The purpose of this chapter is to report on the empirical results as per the data obtained from the questionnaires. Descriptive and inferential statistics were used. Linear regression and correlation analyses were conducted to investigate the relationship between the demographic variables, organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay.

The goal of this section is to address the research objectives, which are as follows:

- to explore whether supportive organisational culture, transformational leadership and organisational change outcomes are prevalent in public intensive care units
- to investigate the relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay.

The response rate achieved for this study from the seventy-five questionnaires distributed to the professional nurses, including enrolled nurses who are working in the public intensive care unit, was 80%, as only sixty questionnaires of the seventy-five were returned. Two of the questionnaires had missing data. One questionnaire had section D missing and the second questionnaire had the Likert-scale part not ticked off, but the rest of the questionnaires were not spoilt and could be used. Therefore, the usable population size was \(n=58\) instead of \(n=60\) in some sections.

4.2 DEMOGRAPHIC DATA

The demographic characteristics of the study participants are reflected in Table 4.1. Of the sixty participants, 30% \((n=18)\) had the longest years of experience in the intensive care unit, compared to 23% \((n=14)\) who had less than 5 years of experience in the intensive care unit. The majority of the participants were female \((97\%; n=58)\), which was significantly higher than their male counterparts \((3\%; n=2)\). With regard to
the age of the sixty participants, the majority (48%; n=29) were between the ages of 50-59 years, while only 8% (n=5) were under the age of 30 years. The majority of the participants (85%; n=51) held a position of a registered nurse within the intensive care unit.

Table 4.1: Demographic data

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Public n (60)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Years of experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1year</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>1-4years</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>5-9years</td>
<td>14</td>
<td>23%</td>
</tr>
<tr>
<td>10-19years</td>
<td>18</td>
<td>30%</td>
</tr>
<tr>
<td>20+years</td>
<td>14</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>58</td>
<td>97%</td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;25 years</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>25-29 years</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>30-39 years</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>40-49 years</td>
<td>17</td>
<td>28%</td>
</tr>
<tr>
<td>50-59 years</td>
<td>29</td>
<td>48%</td>
</tr>
<tr>
<td>60+</td>
<td>1</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Public n (60)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Manager</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Unit manager</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Registered nurse</td>
<td>51</td>
<td>84%</td>
</tr>
<tr>
<td>Enrolled nurse</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Clinical facilitator/mentor</td>
<td>1</td>
<td>2%</td>
</tr>
</tbody>
</table>
4.3 DESCRIPTIVE STATISTICS

Descriptive statistics can be described as either the characteristics of a sample or the relationship among variables within a sample and is measured by means of central tendency and variability or dispersion (Brink et al., 2012:179). In this research study a Likert scale was used. The frequency is reported for three groups, with the strongly agree and agree responses grouped together and the strongly disagree and disagreed responses grouped together and the third group is neutral.

4.3.1 Organisational culture

The questionnaire in this section has been structured to investigate the relationships amongst supportive organisational culture, transformational leadership and organisational change outcomes in the public intensive care units. This section has four sub sections which include teamwork, innovation, patient care and professional development. The responses are indicated in Table 4.2 below.

Table 4.2: Descriptive Statistics for Organisational Culture (n=60)

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree n %</th>
<th>Disagree n %</th>
<th>Neutral n %</th>
<th>Agree n %</th>
<th>Strongly agree n %</th>
<th>Total n %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TEAM WORK</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teamwork is valued in</td>
<td>1  2%</td>
<td>2  3%</td>
<td>1  2%</td>
<td>21 35%</td>
<td>35 58%</td>
<td>60 100%</td>
</tr>
<tr>
<td>the unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimal patient care</td>
<td>0  0%</td>
<td>2  3%</td>
<td>2  3%</td>
<td>22 37%</td>
<td>34 57%</td>
<td>60 100%</td>
</tr>
<tr>
<td>is driven by</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>team work rather than</td>
<td>0  0%</td>
<td>2  3%</td>
<td>1  2%</td>
<td>36 60%</td>
<td>21 35%</td>
<td>60 100%</td>
</tr>
<tr>
<td>by isolated individuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The opinions of</td>
<td>0  0%</td>
<td>2  3%</td>
<td>1  2%</td>
<td>33 55%</td>
<td>17 28%</td>
<td>60 100%</td>
</tr>
<tr>
<td>team members are</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>considered in patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>care decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INNOVATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative care</td>
<td>0  0%</td>
<td>2  3%</td>
<td>8 13%</td>
<td>33 55%</td>
<td>17 28%</td>
<td>60 100%</td>
</tr>
<tr>
<td>practices are</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>encouraged</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strongly disagree n</td>
<td>Disagree n</td>
<td>Neutral n</td>
<td>Agree n</td>
<td>Strongly agree n</td>
<td>Total n</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>---------------------</td>
<td>------------</td>
<td>-----------</td>
<td>---------</td>
<td>-----------------</td>
<td>---------</td>
</tr>
<tr>
<td>Care practices are aligned with the latest, available innovative techniques, procedures and practices</td>
<td>0 0%</td>
<td>3 5%</td>
<td>6 10%</td>
<td>30 50%</td>
<td>21 35%</td>
<td>60 100%</td>
</tr>
<tr>
<td>Best and innovative practices are discussed and promoted</td>
<td>0 0%</td>
<td>1 2%</td>
<td>8 13%</td>
<td>35 58%</td>
<td>16 27%</td>
<td>60 100%</td>
</tr>
<tr>
<td><strong>PATIENT CARE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflective sessions are held to discuss ways to improve care delivery</td>
<td>1 2%</td>
<td>3 5%</td>
<td>8 14%</td>
<td>32 54%</td>
<td>15 25%</td>
<td>59 100%</td>
</tr>
<tr>
<td>Providing the best quality patient care is our focus</td>
<td>1 2%</td>
<td>1 2%</td>
<td>0 0%</td>
<td>22 37%</td>
<td>36 60%</td>
<td>60 100%</td>
</tr>
<tr>
<td><strong>PROFESSIONAL DEVELOPMENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional development is encouraged and facilitated</td>
<td>1 2%</td>
<td>6 10%</td>
<td>12 20%</td>
<td>23 38%</td>
<td>18 30%</td>
<td>60 100%</td>
</tr>
<tr>
<td>Excellence is promoted</td>
<td>0 0%</td>
<td>4 7%</td>
<td>6 10%</td>
<td>32 53%</td>
<td>18 30%</td>
<td>60 100%</td>
</tr>
<tr>
<td>Opportunities are created for further professional development</td>
<td>1 2%</td>
<td>9 15%</td>
<td>15 25%</td>
<td>24 40%</td>
<td>11 18%</td>
<td>60 100%</td>
</tr>
<tr>
<td>In-service learning is practised regularly</td>
<td>1 2%</td>
<td>7 12%</td>
<td>8 13%</td>
<td>31 52%</td>
<td>13 22%</td>
<td>60 100%</td>
</tr>
<tr>
<td>Quality patient outcomes are a high priority in the unit</td>
<td>0 0%</td>
<td>3 5%</td>
<td>2 3%</td>
<td>22 37%</td>
<td>32 54%</td>
<td>59 100%</td>
</tr>
</tbody>
</table>
### Teamwork

From the results in Table 4.2 it is evident that each team member's opinion is considered when making patient care decisions i.e. 95%; n=57 strongly agreed or agreed. Furthermore, the participants strongly agreed and agreed (94%; n=57) that patient care is driven by teamwork while 93%; n=56 (strongly agreed and agreed) that teamwork is valued as a component of organisational culture.

### Innovation

Furthermore, the subsection exploring items with regard to innovation, revealed that 85% (n=51) of the participants strongly agreed and agreed that the care practices were aligned with the latest available innovative techniques, procedures and practices, and that 85% (n=51) of the respondents strongly agreed and agreed that best innovative practices are discussed and promoted. Of the sixty participants, 83% (n=50) strongly agreed or agreed that best and innovative practices are encouraged (as per table 4.2).

### Patient care

Under the subsection of patient care: 97% (n=58) of participants strongly agreed and agreed that their focus was based on providing the best quality patient care, whereas 79% (n=47) of the participants strongly agreed and agreed that reflective sessions were held to discuss ways to improve care delivery in the intensive care unit.

<table>
<thead>
<tr>
<th>Perception</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff are valued and considered as an important link in care delivery</td>
<td>2</td>
<td>3</td>
<td>12</td>
<td>31</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>Staff members are supportive in optimising patient care</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>36</td>
<td>18</td>
<td>60</td>
</tr>
</tbody>
</table>
Professional development

In questioning the participants regarding professional development within the intensive care unit, it was shown that 91% (n=59) strongly agreed and agreed that quality patient outcomes were highly prioritised in the unit, while 90% (n=54) of the participants strongly agreed and agreed that staff members are supportive in optimising patient care and 83% (n =50) strongly agreed and agreed that excellence was promoted in the intensive care units. However, only 74% (n=44) strongly agreed and agreed that in-service was practised regularly, while only 72% (n=43) strongly agreed and agreed that staff are valued and considered as an important link in care delivery and 68% (n=41) strongly agreed and agreed that professional development is encouraged and facilitated. The lowest score in this section was indicated as 58% (n=35). This is where the participants strongly agreed and agreed that opportunities are created for further professional development.

In summary, it can thus be concluded that teamwork, innovation and patient care related issues scored the highest in this section. The lowest scores were related to items such as professional development, therefore highlighting the need to encourage, facilitate and provide opportunities to further professional development in the intensive care units in Nelson Mandela Bay. Furthermore, it is evident from the overall high average score of the four sections that a positive organisational culture exists in public intensive care units within Nelson Mandela Bay.

4.3.2 Transformational leadership

This section of the questionnaire aimed to explore whether transformational leadership is prevalent in public intensive care units sampled within Nelson Mandela Bay. The questionnaire focused on items related to idealised influence, influential motivation, individualised consideration and intellectual stimulation. The results as per the responses are depicted in Table 4.3.
Table 4.3: Descriptive Statistics for Transformational Leadership (n=60)

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree n</th>
<th>Disagree n</th>
<th>Neutral n</th>
<th>Agree n</th>
<th>Strongly agree n</th>
<th>Total n</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>IDEALISED INFLUENCE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The leader in our unit helps to achieve organisational goals by making strategic decisions.</td>
<td>0 0%</td>
<td>2 3%</td>
<td>10 17%</td>
<td>33 55%</td>
<td>15 25%</td>
<td>60 100%</td>
</tr>
<tr>
<td>The leader in the unit is future-oriented and visionary</td>
<td>0 0%</td>
<td>5 8%</td>
<td>12 20%</td>
<td>32 53%</td>
<td>11 18%</td>
<td>60 100%</td>
</tr>
<tr>
<td>My immediate leader communicates the vision for the unit and organisation clearly</td>
<td>0 0%</td>
<td>4 7%</td>
<td>11 19%</td>
<td>35 59%</td>
<td>9 15%</td>
<td>59 100%</td>
</tr>
<tr>
<td>INFLUENTIAL MOTIVATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My leader makes everyone around him/her enthusiastic about patient care and care delivery</td>
<td>0 0%</td>
<td>1 2%</td>
<td>8 14%</td>
<td>33 56%</td>
<td>17 29%</td>
<td>59 100%</td>
</tr>
<tr>
<td>The leader inspires employees to be loyal towards the organisation.</td>
<td>2 3%</td>
<td>3 5%</td>
<td>8 14%</td>
<td>36 61%</td>
<td>10 17%</td>
<td>59 100%</td>
</tr>
<tr>
<td>The leader models professionalism</td>
<td>2 3%</td>
<td>3 5%</td>
<td>8 13%</td>
<td>34 57%</td>
<td>13 22%</td>
<td>60 100%</td>
</tr>
<tr>
<td>The leader inspires nursing staff to excel in care delivery.</td>
<td>1 2%</td>
<td>3 5%</td>
<td>7 12%</td>
<td>32 53%</td>
<td>17 28%</td>
<td>60 100%</td>
</tr>
<tr>
<td>INDIVIDUALISED CONSIDERATION</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly agree</td>
<td>Total</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>---------</td>
<td>-------</td>
<td>----------------</td>
<td>-------</td>
</tr>
<tr>
<td>The leader demonstrates trust in our ability to perform core functions of nursing care.</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>37</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>2%</td>
<td>5%</td>
<td>12%</td>
<td>62%</td>
<td>20%</td>
<td>100%</td>
</tr>
<tr>
<td>The leader publicly praises exceptional contributions to health care practices</td>
<td>4</td>
<td>5</td>
<td>10</td>
<td>28</td>
<td>17%</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>8%</td>
<td>17%</td>
<td>47%</td>
<td>22%</td>
<td>100%</td>
</tr>
<tr>
<td>INTELLECTUAL STIMULATION</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly agree</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The leader enables me to think about traditional health care practices in a new way</td>
<td>1</td>
<td>8</td>
<td>23</td>
<td>21</td>
<td>10%</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>2%</td>
<td>14%</td>
<td>39%</td>
<td>36%</td>
<td>10%</td>
<td>100%</td>
</tr>
<tr>
<td>The leader has provided me with new ways of solving challenging patient situations.</td>
<td>3</td>
<td>12</td>
<td>35</td>
<td>22</td>
<td>10%</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>5%</td>
<td>20%</td>
<td>59%</td>
<td>10%</td>
<td>100%</td>
</tr>
<tr>
<td>The leader continuously encourages excellence amongst nursing staff</td>
<td>3</td>
<td>8</td>
<td>27</td>
<td>20</td>
<td>33%</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>3%</td>
<td>13%</td>
<td>45%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>The leader encourages creativity amongst nursing staff</td>
<td>3</td>
<td>17</td>
<td>22</td>
<td>16</td>
<td>27%</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>3%</td>
<td>28%</td>
<td>37%</td>
<td>27%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Idealised influence

The subsection related to idealised influence revealed that 80% (n=48) of the participants strongly agreed and agreed that the leaders helped the employees to achieve organisational goals by making strategic decisions. 74% (n=44) of the participants strongly agreed and agreed that their leaders communicate the vision for the unit and organisation clearly, whereas only 71% (n=41) of the participants strongly agreed and agreed that the leaders are future orientated and visionary.

Influential motivation

The highest score in this section was 85% (n=50). This revealed that the majority of the participants strongly agreed and agreed that the leader managed to encourage everyone to be enthusiastic about patient care delivery, while 81% (n=49) of the participants strongly agreed and agreed that the leaders inspired nursing staff to excel in care delivery. 79% (n=47) of the participants strongly agreed and agreed that the leaders modelled professionalism, while only 78% (n=46) strongly agreed and agreed that the leaders inspired employees to be loyal towards the organisation.

Individualised consideration

Of the items explored in this section, 82% (n=49) of the participants strongly agreed and agreed that the leaders demonstrated trust in the employees’ ability to perform core functions in nursing care, while, only 69% (n =41) of the participants strongly agreed and agreed that the leaders publicly praised the employees for exceptional contributions to the health care practices.

Intellectual stimulation

In this subsection, aimed at intellectual stimulation, 78% (n=47) of participants strongly agreed and agreed that the leaders continuously encourage nursing staff to excel, while 69% (n=41) of the participants strongly agreed and agreed that the leader provided employees with new ways of solving the challenging patient situations and only 64% (n=48) of the participants strongly agreed and agreed that the leaders encourage creativity amongst the nursing staff. The lowest score in this section revealed that only 46% (n=27) of the participants strongly agreed and agreed that the
leaders enable the employees to think about traditional health care practices in a new way.

In summary, it is evident from the results in Table 4.3 that a positive transformational leadership exists in public intensive care units within Nelson Mandela Bay. However, it should be noted that the lowest score in this section is related to the intellectual stimulation, suggesting that leaders’ ability to encourage creativity amongst the staff, as well as encouraging them to think about traditional practices in new ways, could be improved.

4.3.3 Organisational change outcomes

The subsections of organisational change outcomes include patient and family satisfaction, innovative care practices as well as organisational effectiveness and change. The results are represented in Table 4.4 below.

Table 4.4: Descriptive Statistics for Organisational Change outcomes (n= 60) (except where n=59 or 58)

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagreed n</th>
<th>Disagree n</th>
<th>Neutral n</th>
<th>Agree n</th>
<th>Strongly agree n</th>
<th>Total n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved patient satisfaction</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>37</td>
<td>17</td>
<td>59</td>
</tr>
<tr>
<td>Family members expressing appreciation for family support</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>35</td>
<td>14</td>
<td>59</td>
</tr>
<tr>
<td>Increased awareness of innovative best practices</td>
<td>0</td>
<td>2</td>
<td>9</td>
<td>40</td>
<td>8</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Strongly disagreed</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly agree</td>
<td>Total</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>--------------------</td>
<td>----------</td>
<td>---------</td>
<td>-------</td>
<td>----------------</td>
<td>-------</td>
</tr>
<tr>
<td>Improved care practices as reported in patient care audits</td>
<td>0 0%</td>
<td>2 3%</td>
<td>10 17%</td>
<td>34 59%</td>
<td>12 21%</td>
<td>58 100%</td>
</tr>
<tr>
<td>Evidence-based improved care</td>
<td>0 0%</td>
<td>0 0%</td>
<td>11 19%</td>
<td>38 64%</td>
<td>10 17%</td>
<td>59 100%</td>
</tr>
<tr>
<td>A positive approach to learning innovative practices</td>
<td>0 0%</td>
<td>1 2%</td>
<td>13 22%</td>
<td>34 58%</td>
<td>11 19%</td>
<td>59 100%</td>
</tr>
<tr>
<td>Staff members being more reflective about patient care decisions</td>
<td>0 0%</td>
<td>4 7%</td>
<td>5 8%</td>
<td>35 59%</td>
<td>15 25%</td>
<td>59 100%</td>
</tr>
<tr>
<td>Increase creativity amongst nursing staff</td>
<td>0 0%</td>
<td>4 7%</td>
<td>13 22%</td>
<td>32 54%</td>
<td>10 17%</td>
<td>59 100%</td>
</tr>
<tr>
<td>Improved teamwork is evident amongst nursing staff in the unit</td>
<td>2 3%</td>
<td>2 3%</td>
<td>11 19%</td>
<td>28 47%</td>
<td>16 27%</td>
<td>59 100%</td>
</tr>
<tr>
<td>A heightened sense of enthusiasm towards care delivery and practices</td>
<td>2 3%</td>
<td>3 5%</td>
<td>12 20%</td>
<td>35 59%</td>
<td>7 12%</td>
<td>59 100%</td>
</tr>
</tbody>
</table>
Patient and family satisfactory

As shown in Table 4.4., 92% of the participants strongly agreed and agreed that improved patient satisfaction was practiced in the public intensive care unit, while 83% of the participants strongly agreed and agreed that the family members expressed appreciation for support shown to them.
Innovative care practices

The participants strongly agreed and agreed (84%; n=50) that the staff members are more reflective about patient care decisions. Furthermore, they also (82%; n=48) strongly agreed and agreed that there is an increased awareness of innovative best practices in the public intensive care unit (81%; n =48) and that the public intensive care units adopted evidence based to improve care. Of the sixty participants, 80% (n=46) strongly agreed and agreed that care practices are improved as reported in patient care audits. It was evident that 78% (n=46) of the participants strongly agreed and agreed that a great confidence level is displayed amongst nursing staff in the public intensive care units. Furthermore, 77% (n=45) of participants strongly agreed and agreed that a positive approach to learning innovative practices was established in the public intensive care units, whereas 74% strongly agreed and agreed that improved team work was evident amongst nursing staff in the unit. The participants also strongly agreed and agreed (71%; n=42) that a heightened sense of enthusiasm towards care delivery and practices was demonstrated in the public intensive care units, while 71% (n=42) of participants strongly agreed and agreed that there was increased creativity amongst the nursing staff.

Organisational effectiveness and change outcomes

Of the sixty participants in this study, 88% (n=52) of participants strongly agreed and agreed that efficient utilisation of available resources was being done in the public intensive care units. The participants strongly agreed and agreed (84%; n=50) that more efficient care practices were practiced in the public intensive care units. Furthermore, the responses to the questions showed that only 69% (n=35) of the staff members are open to change and new practices, while only 68% (n=40) of the participants strongly agreed and agreed that increased cost effective care practices were practised in the public intensive care units. Only 53% (n=31) of participants strongly agreed and agreed that they were utilising less traditional care practices in the intensive care units of Nelson Mandela Bay.

In summary, it can be concluded that as derived from the results in Table 4.4, the organisational change outcomes are prevalent in public intensive care units within Nelson Mandela Bay. However, it should be noted that items within the organisational
effectiveness and change outcomes scored the lowest in this section, highlighting the participants' openness to change and new practices, utilizing less traditional care practices and having increased cost effective care practices within the public intensive care units.

### 4.4 CORRELATION ANALYSIS

The correlations between the various variables in this study are presented in Table 4.5. Correlations are considered to be statistically significant if P is <0.05 where n=60 (Gravetter & Wallnau, 2009:534). However, if the absolute value is greater than or equal to r (r is >0.25) or the absolute value is more than 0.300, it is practically significant (Gravetter & Wallnau, 2009:534). All variables had a positive correlation indicating that there is a positive relationship between organisational culture, transformational leadership and organisational change outcomes.

#### Table 4.5: Pearson's correlations coefficients

<table>
<thead>
<tr>
<th></th>
<th>OC1</th>
<th>OC2</th>
<th>OC3</th>
<th>OC4</th>
<th>OC</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L</th>
<th>LCO1</th>
<th>LCO2</th>
<th>LCO3</th>
<th>LCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC1 Teamwork</td>
<td>1</td>
<td>-0.542</td>
<td>0.738</td>
<td>0.436</td>
<td>0.786</td>
<td>0.529</td>
<td>0.524</td>
<td>0.385</td>
<td>0.500</td>
<td>0.519</td>
<td>0.526</td>
<td>0.610</td>
<td>0.509</td>
<td>0.611</td>
</tr>
<tr>
<td>OC2 Innovation</td>
<td>0.542</td>
<td>1</td>
<td>-0.788</td>
<td>0.647</td>
<td>0.864</td>
<td>0.671</td>
<td>0.631</td>
<td>0.519</td>
<td>0.634</td>
<td>0.659</td>
<td>0.489</td>
<td>0.667</td>
<td>0.587</td>
<td>0.645</td>
</tr>
<tr>
<td>OC3 Patient care</td>
<td>0.738</td>
<td>-0.788</td>
<td>1</td>
<td>-0.703</td>
<td>0.941</td>
<td>0.801</td>
<td>0.761</td>
<td>0.675</td>
<td>0.808</td>
<td>0.820</td>
<td>0.595</td>
<td>0.728</td>
<td>0.676</td>
<td>0.740</td>
</tr>
<tr>
<td>OC4 Professional development</td>
<td>0.436</td>
<td>0.647</td>
<td>0.703</td>
<td>1</td>
<td>-0.830</td>
<td>0.781</td>
<td>0.665</td>
<td>0.666</td>
<td>0.699</td>
<td>0.757</td>
<td>0.377</td>
<td>0.634</td>
<td>0.489</td>
<td>0.555</td>
</tr>
<tr>
<td>OC Organisational Culture</td>
<td>0.786</td>
<td>0.864</td>
<td>0.941</td>
<td>0.830</td>
<td>1</td>
<td>-0.819</td>
<td>0.757</td>
<td>0.663</td>
<td>0.775</td>
<td>0.810</td>
<td>0.569</td>
<td>0.759</td>
<td>0.648</td>
<td>0.732</td>
</tr>
<tr>
<td>L1 Idealised influence of charisma</td>
<td>0.529</td>
<td>0.671</td>
<td>0.801</td>
<td>0.781</td>
<td>0.819</td>
<td>1</td>
<td>-0.818</td>
<td>0.740</td>
<td>0.803</td>
<td>0.900</td>
<td>0.502</td>
<td>0.720</td>
<td>0.686</td>
<td>0.704</td>
</tr>
<tr>
<td>L2 Inspirational motivation</td>
<td>0.524</td>
<td>0.631</td>
<td>0.761</td>
<td>0.665</td>
<td>0.757</td>
<td>0.818</td>
<td>1</td>
<td>-0.839</td>
<td>0.839</td>
<td>0.943</td>
<td>0.646</td>
<td>0.678</td>
<td>0.613</td>
<td>0.720</td>
</tr>
<tr>
<td>L3 Individualised consideration</td>
<td>0.385</td>
<td>0.519</td>
<td>0.675</td>
<td>0.666</td>
<td>0.663</td>
<td>0.740</td>
<td>0.839</td>
<td>1</td>
<td>-0.805</td>
<td>0.922</td>
<td>0.627</td>
<td>0.655</td>
<td>0.595</td>
<td>0.697</td>
</tr>
<tr>
<td>L4 Intellectual stimulation</td>
<td>0.500</td>
<td>0.634</td>
<td>0.780</td>
<td>0.699</td>
<td>0.775</td>
<td>0.803</td>
<td>0.839</td>
<td>0.805</td>
<td>1</td>
<td>-0.934</td>
<td>0.654</td>
<td>0.731</td>
<td>0.667</td>
<td>0.761</td>
</tr>
<tr>
<td>L Leadership</td>
<td>0.519</td>
<td>0.659</td>
<td>0.820</td>
<td>0.757</td>
<td>0.810</td>
<td>0.900</td>
<td>0.943</td>
<td>0.922</td>
<td>0.934</td>
<td>1</td>
<td>-0.658</td>
<td>0.750</td>
<td>0.689</td>
<td>0.777</td>
</tr>
<tr>
<td>LCO1 Patient and family related</td>
<td>0.526</td>
<td>0.489</td>
<td>0.595</td>
<td>0.377</td>
<td>0.569</td>
<td>0.502</td>
<td>0.664</td>
<td>0.627</td>
<td>0.654</td>
<td>0.668</td>
<td>1</td>
<td>-0.682</td>
<td>0.604</td>
<td>0.857</td>
</tr>
<tr>
<td>LCO2 Staff related</td>
<td>0.610</td>
<td>0.667</td>
<td>0.728</td>
<td>0.634</td>
<td>0.759</td>
<td>0.720</td>
<td>0.678</td>
<td>0.655</td>
<td>0.731</td>
<td>0.750</td>
<td>0.882</td>
<td>1</td>
<td>-0.856</td>
<td>0.938</td>
</tr>
<tr>
<td>LCO3 Organisational care practices</td>
<td>0.509</td>
<td>0.587</td>
<td>0.676</td>
<td>0.489</td>
<td>0.648</td>
<td>0.686</td>
<td>0.613</td>
<td>0.595</td>
<td>0.667</td>
<td>0.689</td>
<td>0.604</td>
<td>0.856</td>
<td>1</td>
<td>-0.903</td>
</tr>
<tr>
<td>LCO Organisational Change Outcomes</td>
<td>0.611</td>
<td>0.645</td>
<td>0.740</td>
<td>0.555</td>
<td>0.732</td>
<td>0.704</td>
<td>0.720</td>
<td>0.697</td>
<td>0.761</td>
<td>0.777</td>
<td>0.857</td>
<td>0.938</td>
<td>0.903</td>
<td>1</td>
</tr>
</tbody>
</table>
4.5 CHI-SQUARE ANALYSIS

The research study aimed to investigate the relationship between organisational culture, transformational leadership and organisational change outcomes. The hypotheses formulated are as follows:

H0; 1: There is a significant relationship between organisational culture and organisational change outcomes;

H0; 2: There is a significant relationship between transformational leadership and organisational change outcomes;

H0; 3: There is a significant relationship between organisational culture and leadership on organisational change outcomes.

4.5.1 Organisational culture and organisational change outcomes

The chi-squared hypotheses tests were used to investigate whether the stated variables were statistically associated. The results showing the relationship between organisational culture and organisational change outcomes are depicted in Table 4.6.

Table 4.6: Organisational Culture and Organisational Change Outcomes

<table>
<thead>
<tr>
<th>OC Organisational culture</th>
<th>[1.00-3.71]</th>
<th>[3.71-4.17]</th>
<th>[4.17-5.00]</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1.00-3.87]</td>
<td>8 (53%)</td>
<td>6 (40%)</td>
<td>1 (7%)</td>
<td>15 (100%)</td>
</tr>
<tr>
<td>[3.87-4.55]</td>
<td>6 (21%)</td>
<td>18 (64%)</td>
<td>4 (14%)</td>
<td>28 (100%)</td>
</tr>
<tr>
<td>[4.55-5.00]</td>
<td>1 (6%)</td>
<td>6 (38%)</td>
<td>9 (56%)</td>
<td>16 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>15 (25%)</td>
<td>30 (51%)</td>
<td>14 (24%)</td>
<td>59 (100%)</td>
</tr>
</tbody>
</table>

$\text{Chi}^2 (\text{d.f.}= 4, n = 59) = 19.01; p = .001; V = 0.40 \text{ Large}$

The null hypothesis (H0) stated that there is no relationship between organisational culture and organisational change outcomes. This hypothesis has been rejected, as demonstrated in table 4.6 with $p=.001$ and $v=0.40$ and therefore we know that, H0, 1: there is a relationship between organisational culture and organisational change outcomes.
4.5.2 Organisational culture and leadership

The Chi-squared hypotheses tests were used to investigate whether the stated variables were statistically associated. The results stating the relationship between organisational culture and leadership are depicted in Table 4.7

Table 4.7: Organisational Culture and Leadership

<table>
<thead>
<tr>
<th>OC Organisational Culture</th>
<th>L Leadership</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[1.00-3.55]</td>
<td>[3.55-4.34]</td>
<td>[4.34-5.00]</td>
<td></td>
</tr>
<tr>
<td>[1.00-3.87]</td>
<td>10 (67%)</td>
<td>5 (33%)</td>
<td>0 (0%)</td>
<td>15 (100%)</td>
</tr>
<tr>
<td>[3.87-4.55]</td>
<td>5 (17%)</td>
<td>18 (62%)</td>
<td>6 (21%)</td>
<td>29 (100%)</td>
</tr>
<tr>
<td>[4.55-5.00]</td>
<td>0 (0%)</td>
<td>7 (44%)</td>
<td>9 (56%)</td>
<td>16 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>15 (25%)</td>
<td>30 (50%)</td>
<td>15 (25%)</td>
<td>60 (100%)</td>
</tr>
</tbody>
</table>

Chi² (d.f. = 4, n = 60) = 27.13; p < .0005; V = 0.48 Large

The null hypothesis (H0): (There is no relationship between organisational culture and leadership) has been rejected as demonstrated in table 4.7 where p < 0.05. Therefore, H0, 3: there is a relationship between the organisational culture and leadership.

4.5.3 Leadership and organisational change outcomes

The Chi-squared hypothesis tests were used to investigate whether the stated variables were statistically associated. The results demonstrating the relationship between leadership and organisational change outcomes are depicted in Table 4.8.

Table 4.8: Leadership and Organisational Change Outcomes

<table>
<thead>
<tr>
<th>L Leadership and OCO Organisational Change Outcomes</th>
<th>[1.00-3.71]</th>
<th>[3.71-4.17]</th>
<th>[4.17-5.00]</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1.00-3.55]</td>
<td>8 (57%)</td>
<td>6 (43%)</td>
<td>0 (0%)</td>
<td>14 (100%)</td>
</tr>
<tr>
<td>[3.55-4.34]</td>
<td>6 (20%)</td>
<td>17 (57%)</td>
<td>7 (23%)</td>
<td>30 (100%)</td>
</tr>
<tr>
<td>[4.34-5.00]</td>
<td>1 (7%)</td>
<td>7 (47%)</td>
<td>7 (47%)</td>
<td>15 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>15 (25%)</td>
<td>30 (51%)</td>
<td>14 (24%)</td>
<td>59 (100%)</td>
</tr>
</tbody>
</table>

Chi² (d.f. = 4, n = 59) = 15.04; p = .005; V = 0.36 Large
There is a significant relationship between organisational culture and leadership and organisational change outcomes.

### 4.6 MULTIPLE REGRESSION ANALYSIS

The regression analysis was done to operationalise the following hypotheses:

**H0, 1:** There is a significant relationship between organisational culture and organisational change outcomes

**H0, 2:** There is a significant relationship between transformational leadership and organisational change outcomes

**H0, 3:** There is a significant relationship between organisational culture and leadership and organisational change outcomes

Table 4.9: Multiple regression analysis

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t (56)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1,13</td>
<td>0,34</td>
<td>3,32</td>
<td>0,002</td>
</tr>
<tr>
<td>OC Organisational Culture</td>
<td>0,28</td>
<td>0,14</td>
<td>1,96</td>
<td>0,055</td>
</tr>
<tr>
<td>L Leadership</td>
<td>0,43</td>
<td>0,11</td>
<td>3,77</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Linear regression formula: OCO = a + b1 + OC + b2L

Where, OC = Organisational culture and L = Leadership

The marginally non-significant p-value (p > 0.05) in organisational culture is not an indication of a non-significant effect, but is due to the strong correlation between organisational culture and leadership (0.810). The important part is 62% (adjusted $R^2$ x 100) of the variation of organisational change outcome can be explained by variation in organisation culture and leadership combined.

From the results in Table 4.9., it can be concluded that there are strong positive correlations between the independent and dependent variables. The multiple $R^2$ of 0.63 indicated that 63% of variation in organisational change outcomes can be accounted for variation in organisational culture and transformational leadership. Therefore, the relationship is statistically significant as the p value is less than 0.05.
This means that there is a significant relationship between organisational culture, transformational leadership and organisational change outcomes in the public intensive care units in Nelson Mandela Bay. This also means that a positive organisational culture and transformational leadership will contribute to positive organisational change outcomes in an organisation. The results thus imply that the alternative hypotheses $H_{0:1}$, $H_{0:2}$ and $H_{0:3}$ are supported.

4.7 Content Analysis

Content analysis was used in this study in a quantitative manner for description and to classify open ended responses to survey questions. Content analysis done to break down information from the responses of the participants on the open ended questions and formed into themes. The content analysis was done on the following questions:

Section B: 16. In your opinion, what are the characteristics of the organisational culture that you think would influence organizational change outcomes in the intensive care unit?

Section C: 14. What are leadership characteristics of the leadership do you feel might influence organisational change outcomes?

Section D: What organisational change outcomes are evident in your unit?

Table 4.10: Characteristics of the Organisational Culture that influence Organisational Change Outcomes

<table>
<thead>
<tr>
<th>Characteristics of the Organisational Culture that influence OCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendations</td>
</tr>
<tr>
<td>percentage of participants</td>
</tr>
<tr>
<td>Staff development</td>
</tr>
<tr>
<td>Valued as a team member</td>
</tr>
<tr>
<td>Teamwork</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>0%</td>
</tr>
<tr>
<td>20%</td>
</tr>
<tr>
<td>40%</td>
</tr>
<tr>
<td>60%</td>
</tr>
<tr>
<td>80%</td>
</tr>
<tr>
<td>100%</td>
</tr>
<tr>
<td>120%</td>
</tr>
</tbody>
</table>
Based on the contents of the responses from the participants included the following staff development, involvement in decision making, motivation of staff…… etc. The following three themes emerged from the response of participants under Organisational Culture: staff development, valued as a team member and team work. Total of participants (67%, n=41), some of participants left blank spaces or did not answer this section resulting in obtaining very lowest score in all themes. The results revealed only (17%, n=7) identified valued as a team member to be a characteristic of the organisational culture that would influence organisational change outcomes.

Table 4.11: The Characteristics of leadership that might influence Organisational Change Outcomes

Based on the contents of the responses from the participants included the following under the section of leadership good communication, encourage development, good listener, flexibility and good communication …… etc. The following three themes emerged from the response of participants: good communication, democratic leader and leader with conviction. Total of participants (65%, n=39), some of participants left blank spaces or did not answer this section resulting in obtaining very low score in all themes. The results revealed only (23%, n=9) identified leader with conviction as a characteristic of leadership in the unit that might influence organisational change outcomes.
Table 4.12 Outcomes of Change in the Intensive Care Unit

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Percentage of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved patient care</td>
<td>12%</td>
</tr>
<tr>
<td>Innovative practices</td>
<td>18%</td>
</tr>
<tr>
<td>Teamwork</td>
<td>4%</td>
</tr>
<tr>
<td>Nil change at present</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

The following four themes emerged from the response of participants under Outcomes of Change: Improved patient care, innovative practices, team work and nil change at present. Total of participants (67%, n=41), some of participants left blank spaces or did not answer this section resulting in obtaining very lowest score in all themes. Total of (24%, n=11) stated that nil change at present. The results revealed only (13%, n=6) identified team work as outcome of change in the intensive care unit.

4.8 SUMMARY OF THE CHAPTER

This chapter provides a detailed empirical and descriptive correlation of the results. The response rate for the study and descriptive statistics on the demographic data was outlined and discussed. The descriptive statistics in relation to the organisational culture, transformational leadership and organisational change outcomes was presented. Positive relations between variables was demonstrated through the use of Pearson’s correlations coefficients with r >0.003 and p value < 0.05. The Chi Square analysis was used to investigate whether the relationship between organisational culture (independent variable), transformational leadership (independent variable) and organisational change outcomes (dependent variable) were statistically associated. The results of this showed that there is a relationship between the variables. Multiple regression analysis was used to show the significance of the relationship between organisational culture and leadership. The results have proven that the alternative hypothesis H0:1, H0:2 and H0:3 are accepted. Therefore, the results proved that there is a significant relationship between organisational culture, transformational leadership
and organisational change outcomes in public intensive care units. The following chapter will provide a summary of findings, recommendations and conclusion of the study.
CHAPTER FIVE
LIMITATIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION
An overview of the study, problem statement, research purpose and research objectives were presented in chapter one of this study. Chapter two provided an in-depth literature review. Chapter three focused on a rich description of the research design and the method used to reach the primary objective of the study. In chapter four the empirical results of the research findings and data analysis was presented. This chapter is comprised of a summary of the main findings, conclusions drawn, limitations and recommendations.

5.2 OBJECTIVES OF THE STUDY
The aim of this research was to address the following research objectives in the public intensive care units:

1. To explore whether a supportive organisational culture, transformational leadership and organisational change outcomes are prevalent in public intensive care units within Nelson Mandela Bay,

2. To investigate the relationships between organisational culture, transformational leadership and change outcomes in public intensive care units within Nelson Mandela Bay.

5.3 CONCLUSIONS OF THE STUDY
The findings related to the objectives of the study, as indicated above, are summarised in this section.

Demographic profile of the participants

From the demographic data presented in table 4.1, it is evident that the gender of the participants was predominantly female at 97% (n=58), with males at 3% (n=2). According to the South African Nursing Council statistics, there is a predominance of female registered nurses in the Eastern Cape. The majority of the participants were
registered nurses, 85% (n=51), 7% unit managers and 7% enrolled nurses, with only one clinical facilitator. The results are congruent with the South African Nursing Council statistics showing that registered nurses in the Eastern Cape are made up of 13940 females and 1452 males (http://www.sanc.co.za/stat2016/distribution).

The age distribution amongst nurses who participated in the study was consistent with the national statistics. The majority of the participants, 48% (n=29), were between the ages of 50-59 with the national average at 31%. Total of 29% are between 40 and 49, 19% between 30 and 39 and 17% are older than 60 years of age. Lastly, 4% of the nurses are between 20 and 30 years of age (SANC: 2016).

In summary, the results revealed that the majority of the participants are female registered nurses between the ages of 50 and 59 and employed in an intensive care unit for more than ten years.

5.4 RECOMMENDATIONS RELATED TO THE SUBSCALES FINDINGS

Based on the results from the subscale items explored in the questionnaire, the following recommendations can be made for leaders and/or managers in public intensive care units.

Organisational culture

The results related to the prevalence of the organisational culture, revealed that team work was encouraged by considering the team member’s opinion in the patient’s care decision, and team work was valued within the intensive care unit. Innovative practices were promoted and aligned with the latest available care practices which were discussed and promoted. Patient care was based on providing the best quality care and reflective sessions were held to discuss ways to improve care delivery. Only 68% supported the statement that professional development is encouraged and facilitated in the public intensive care units. Furthermore, merely 58% indicated that opportunities are created for future development in public intensive care units within the Nelson Mandela Bay. Whereas, when comparing the results with the study that was conducted in private intensive care units, the results indicated that patient care was prioritised and professional development was promoted (Jordan et al., 2015:3).
Therefore, it is recommended that organisational culture in the public intensive care units should create a learning environment or culture that encourages leaders or managers to support and promote professional development amongst nursing staff. This can be done by allowing and empowering staff to attend in-service training, short courses, congresses and formal trainings regardless of shortage of staff. The staff members that are allowed to attend should come back and share knowledge with those that did not attend. The overall results indicated that a positive organisational culture exists in the public intensive care units within Nelson Mandela Bay.

**Transformational leadership**

The results of the study related to transformational leadership revealed that leaders helped employees to achieve organisational goals by making strategic decisions. The leader within the intensive care unit encouraged staff to be enthusiastic about patient care and care delivery. The leaders demonstrated trust in employees' ability to perform core functions in nursing care. Furthermore, intellectual stimulation was encouraged as the leaders continuously encourage nursing staff to excel within the intensive care environment. In the subsection, individual considerations, only 69% indicated that their leaders publically praise their employees for exceptional contributions to healthcare practices. A total of 64% highlighted that the leaders encourage creativity amongst nursing staff and only 46% show that they enable their employees to think about traditional health care practices in a new way, this is under the intellectual stimulation of transformational leadership.

From the results, it is recommended that leaders should publically praise nursing staff for their individual performance and encourage them to be more creative in applying new knowledge and the latest evidence-based practices. Efforts should be made to find new ways of healthcare practice.

**Organisational change outcomes**

The results of this study that related to the organisational change outcomes section, revealed that improved patient satisfaction was practiced in the public intensive care unit and that patients expressed appreciation for family support. Innovative care practices were encouraged and supported as staff members indicated that they were
being more reflective about patient care decisions and that they adopted evidence-based practice principles to improve care. With regard to the organisational effectiveness and change outcomes, it was evident that the efficient utilisation of available resources was effected in the public intensive care units. The results revealed that only 69% supported the statement that increased cost effective care practices were obtained in the public intensive care units. Furthermore, merely 53% indicated they were utilising less traditional care practices in the intensive care units of the Nelson Mandela Bay. Moreover, in a study that was conducted in private intensive care units, it was revealed that change was needed in encouraging a positive approach to learning innovative practices, creativity and problem solving with regard to care practices (Jordan et al., 2015: 8).

Hence, the recommendations are that the leaders or managers should be change agents so that they will be able to influence staff members to adapt to change. Short courses should be created for leaders on organisational change and preparedness for change within the organisation. They should encourage employees to not consider change as a threat but as improvement for better care practices and to render quality care to patients in public intensive care units.

**Relationship between organisational culture, transformational leadership and change outcomes**

Based on the results from multiple regressions it was shown that there was a significant relationship between organisational culture, transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay. Pearson’s product correlations were used and revealed that there was a positive relationship between organisational culture, transformational leadership and change outcomes.

Chi² analysis results revealed that there was a:

- positive relationship between organisational culture and organisational change outcomes;
- a positive relationship between leadership and organisational change outcomes; and
• a positive relationship between organisational culture and leadership.

A change is to make something different from what it was originally and is usually made to improve and/or develop. The leader or manager should inspire staff members to be more open to change and new practices. According to (Booyens, 2014:480; Kelly, 2011:299), organisational change is comprised of intended innovation in an organisation to improve competence in general by adopting new ideas or behaviour. Leaders must be able to assess and understand the staff’s response to change. The leader must be comfortable with change in order to promote change amongst the staff. They should be change agents in order to be enable to influence staff members to adapt to change. The leader should encourage creativity amongst nursing staff and based on the results of this study lowest score was obtained on the leaders enable their nursing staff to think about traditional practices in a new way. Thus, it is recommended that leaders should encourage staff to be more creative in applying new knowledge and the latest evidence-based practices.

In summary, the objectives of the research study were achieved by means of descriptive statistics, the use of the chi-square, correlation analysis and multiple linear regression analysis. Based on the results, the alternative hypothesis was accepted as it was proven that there was a positive relationship and correlation between organisational culture, transformational leadership and organisational change outcomes.

5.5 RECOMMENDATION FOR RESEARCH

The study was conducted in public intensive care units and the same study was done in private intensive care units. It is recommended that the same study can be conducted or duplicated in other areas within the health care sector such as trauma, operating theatres or cardiac care units, as this will provide the true reflection of the relationships between organisational culture, transformational leadership and organisational change outcomes. Further research can be done to compare the results obtained from the different settings. Future study can be conducted with a qualitative approach, to explore the experiences of registered nurses with regard to organisational culture and transformational leadership that enhances a positive change outcome.
5.6 RECOMMENDATIONS FOR PRACTICE

The leaders or unit managers should promote and encourage innovative practices amongst nursing staff in the intensive care units. They should integrate and compare the existing protocols in the unit and align them with the latest clinical practice guidelines in order to ensure innovative care practices. The innovative care practice, including guidelines that are based in the intensive care unit, should be made known or included in the orientation programme of the new staff member in the unit. Reflective practice should be made a norm within the intensive care unit to ensure improvement and quality patient care. The leaders or manager should make each staff member feel valued as a team member in the unit. The leader or manager should find ways of eradicating traditional and ritual practices by motivating staff to adhere to innovative care practices, more practical steps, have evidence-based practice workshops, guidelines on how to implement specific care practices etc.

5.7 RECOMMENDATION FOR NURSING EDUCATION

The curriculum of nursing should empower the undergraduate and post-basic student with knowledge and skills that are based on innovative care practice. In-service education and short courses should be initiated in health care institutions to ensure organisational culture that promotes awareness of evidence-based practice and the use of the latest guidelines. Transformational leadership is the leadership style in which a nurse must be adept in order to ensure a therapeutic environment within the organisation, should be included and highlighted. The introduction of short courses and programmes that would enhance critical thinking and reflective practice skills of the nursing staff should be encouraged and attended.

5.8 LIMITATIONS OF THE STUDY

The limitation of this study is that it was conducted in only one province of South Africa. It would be beneficial if more provinces had been included. Moreover, it could have produced different results from this study. The study was conducted in public intensive care units within Nelson Mandela Bay, hence the results of the study cannot be generalised to other intensive care units.
In this study fieldworkers were used for data collection. The fieldworkers were taught and informed about the confidentiality of the questionnaires. The sample size was small because some refused to participate, some were on leave and some did not return the questionnaires. There were open ended questions that were left blank so only the Likert scale could be statistically analysed. However, the sample size did provide for proper statistical analysis and achieved the objectives of the study.

5.9 CONCLUSION

The study revealed that the leader plays an important role within the organisation in enhancing organisational change outcomes. Opportunities should be created for further professional development to ensure quality patient care. A total of 83% of the participants agreed that innovation and best practices are discussed and promoted and evidence-based practices in public intensive care units should be considered. The implementation of the recommendations proposed by the researcher, based on the empirical results of this study, could enhance organisational culture and promote leadership that inspires employees by idealised influence; motivation and intellectual stimulation and individual consideration, resulting in a positive effect in organisational change outcomes in public intensive care units within Nelson Mandela Bay.

Deductions from the results indicate professional development and opportunities for future development need to be created by allowing and empowering nursing staff to attend in-service training, short courses, congresses and formal training regardless of shortage of staff, to enhance organisational culture. Leaders should publically praise the employees, encourage creativity and enable staff to think about traditional health care practices in a new way so as to enhance transformational leadership within the public intensive care units. Under the organisational change results, a lower score was obtained on ‘supported increased cost effective care practices’ and there were few employees who indicated less utilisation of traditional care practices in the public intensive care units. Hence, the leaders should be change agents to influence staff to be more creative in applying new knowledge and evidence-based practices.
REFERENCES


Jordan, P.J., Werner, A. & Venter, D. 2015. Achieving excellence in private care units:


Yildirim, N & Birinci, S. 2013. Impacts of organisational culture and leadership on business performance: A case study on acquisitions. *Procedia- Social and


# Annexure A: Information and Informed Consent Form

**NELSON MANDELA METROPOLITAN UNIVERSITY**

<table>
<thead>
<tr>
<th>RESEARCHER’S DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of the research project</strong></td>
</tr>
<tr>
<td><strong>Reference number</strong></td>
</tr>
<tr>
<td><strong>Principal investigator</strong></td>
</tr>
<tr>
<td><strong>Address</strong></td>
</tr>
<tr>
<td><strong>Postal Code</strong></td>
</tr>
<tr>
<td><strong>Contact telephone number (private numbers not advisable)</strong></td>
</tr>
</tbody>
</table>

**A.1 HEREBY CONFIRM AS FOLLOWS:**

I, the participant, was invited to participate in the above-mentioned research project that is being undertaken by Miss Nomawethu Befile From Department of Nursing of the Nelson Mandela Metropolitan University.

---

**2. THE FOLLOWING ASPECTS HAVE BEEN EXPLAINED TO ME, THE PARTICIPANT:**

| **2.1 Objectives of the study** | To investigate the relationship between organisational culture, transformational leadership and change outcomes in intensive care units of public hospitals in Nelson Mandela Metropolitan. The information will be used to make recommendations that will assist nurses working in intensive care unit. |
| **2.2 Procedures:** | I understand that I will partake in self-administered questionnaires and the researcher will clarify any concern regarding questionnaires. |
| **2.3 Risks:** | I will not be exposed to any form of risk or harm. |
| **2.4 Possible benefits:** | As a result of my participation in this study, the relationship between organisational culture, transformational leadership and change outcomes in intensive care unit can be investigated. Recommendations that will assist nurses working in a critical care unit will be made. |
| **2.5 Confidentiality:** | My identity will not be revealed in any discussion, description or scientific publications by the investigators. |
2. THE FOLLOWING ASPECTS HAVE BEEN EXPLAINED TO ME, THE PARTICIPANT:

<table>
<thead>
<tr>
<th>2.6</th>
<th>Access to findings:</th>
<th>Any new information or benefit that develops during the course of the study will be made known in the research report.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6</td>
<td>Voluntary participation / refusal / discontinuation:</td>
<td>My participation is voluntary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>My decision whether or not to participate will in no way affect my present or future care / employment / lifestyle</td>
</tr>
</tbody>
</table>

3. THE INFORMATION ABOVE WAS EXPLAINED TO ME/THE PARTICIPANT BY:

Miss Nomawethu Befile

<table>
<thead>
<tr>
<th>In</th>
<th>Afrikaans</th>
<th>English</th>
<th>Xhosa</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I was given the opportunity to ask questions and all these questions were answered satisfactorily.

4. No pressure was exerted on me to consent to participation and I understand that I may withdraw at any stage without penalisation.

5. Participation in this study will not result in any additional cost to myself.

A.2 I HEREBY VOLUNTARILY CONSENT TO PARTICIPATE IN THE ABOVE-MENTIONED PROJECT:

Signed/confirmed at on 20

A. STATEMENT BY OR ON BEHALF OF INVESTIGATOR(S)

1. Nomawethu Befile declare that:

2. He / she was encouraged and given ample time to ask me any questions;

3. This conversation was conducted in

<table>
<thead>
<tr>
<th>Afrikaans</th>
<th>English</th>
<th>X</th>
<th>Xhosa</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. I have detached Section D and handed it to the participant

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

Signed/confirmed at on 20

Signature of witness:

Full name of witness:
Annexure B: Questionnaire

SECTION A – DEMOGRAPHIC DATA

Read each item below and place an X in the appropriate block or fill in the correct response where required.

1. Indicate the years you have been working in the intensive care unit.

   < 1 year
   1-4 years
   5-9 years
   10-19 years
   20+years

2. Indicate your gender:

   Male
   Female

3. Indicate how old you are.

   < 25 years
   25-29 years
   30-39 years
   40-49 years
   50-59 years
   60+ years

4. Indicate the position that you hold in the intensive care unit.

   Hospital manager
   Unit manager
   Permanently employed registered nurse working in a shift
   Permanently employed enrolled nurse working in a shift
   Clinical facilitator/mentor
SECTION B: ORGANISATIONAL CULTURE

<table>
<thead>
<tr>
<th>Please indicate to what extent you agree or disagree with each of the statements pertaining to your intensive care unit.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teamwork is valued in the unit</td>
<td></td>
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<td>2. Optimal patient care is driven by teamwork rather than by isolated individuals</td>
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<td>3. The opinions of each team member is considered in patient care decisions</td>
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<td>4. Innovative care practices are encouraged</td>
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<td>5. Care practices are aligned with the latest, available innovative techniques, procedures and practices</td>
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<td>6. Best and innovative practices are discussed and promoted</td>
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<tr>
<td>7. Reflective sessions are held to discuss ways to improve care delivery</td>
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<tr>
<td>8. Providing the best quality patient care is our focus</td>
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<td>9. Professional development is encouraged and facilitated</td>
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<tr>
<td>10. Excellence is promoted</td>
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<td>11. Opportunities are created for further professional development</td>
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<td>12. In-service learning is practised regularly</td>
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<td>13. Quality patient outcomes are a high priority in the unit</td>
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<td>14. Staff are valued and considered as an important link in care delivery</td>
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<tr>
<td>15. Staff members are supportive in optimising patient care</td>
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</tbody>
</table>

16. In your opinion, what are the characteristics of the organisational culture that you think would influence organisational change outcomes in the intensive care unit?

______________________________________________________________________________________________________________________________________________________________

______________________________________________________________________________________________________________________________________________________________
## SECTION C: LEADERSHIP

Answer the following questions making an X in the appropriate block

<table>
<thead>
<tr>
<th>Please indicate to what extent you agree or disagree with each of the statements with regard to the leadership style in the intensive care unit.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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</thead>
<tbody>
<tr>
<td>1. The leader in our unit helps to achieve organisational goals by making strategic decisions.</td>
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<tr>
<td>2. The leader in the unit is future-oriented and visionary</td>
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<tr>
<td>3. My immediate leader communicate the vision for the unit and organisation clearly</td>
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<td>4. My leader encourage everyone around him/her enthusiastic about patient care and care delivery</td>
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<td>5. The leader inspires employees to be loyal towards the organisation</td>
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<td>6. The leader models professionalism</td>
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<td>7. The leader inspires nursing staff to excel in care delivery</td>
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<td>8. The leader demonstrates trust in our ability to perform core functions in nursing care</td>
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<td>9. The leader publically praises exceptional contributions to health care practices</td>
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<tr>
<td>10. The leader enables me to think about traditional health care practices in a new way</td>
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<td>11. The leader has provided me with new ways of solving challenging patient situations</td>
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<td>12. The leader continuously encourages excellence amongst nursing staff</td>
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<tr>
<td>13. The leader encourages creativity amongst nursing staff</td>
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</tbody>
</table>

14. What are leadership characteristics of the leadership do you feel might influence organisational change outcomes?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

81
Reflecting on the past year, the following was evident:

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Improved patient satisfaction</td>
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<td>2.</td>
<td>Family members reporting improved family support</td>
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<td>3.</td>
<td>Increased awareness of innovative best practices</td>
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<td>4.</td>
<td>Improved care practices as reported in patient care audits</td>
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<td>5.</td>
<td>Evidence-based improved care</td>
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<td>6.</td>
<td>A more positive approach to learning innovative practices</td>
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<td>7.</td>
<td>Staff members being more reflective about patient care decisions</td>
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<td>8.</td>
<td>Increase creativity amongst nursing staff</td>
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<tr>
<td>9.</td>
<td>Improved teamwork is evident amongst nursing staff in the unit</td>
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<td>10.</td>
<td>A heightened sense of enthusiasm towards care delivery and practices</td>
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<tr>
<td>11.</td>
<td>A greater confidence level displayed amongst nursing staff</td>
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<tr>
<td>12.</td>
<td>Increased cost-effective care practices</td>
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<tr>
<td>13.</td>
<td>More efficient care practices</td>
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<tr>
<td>14.</td>
<td>Efficient utilisation of available resources</td>
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<td>15.</td>
<td>Staff members being more open to change and new practices</td>
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<tr>
<td>16.</td>
<td>Less utilisation of traditional care practices</td>
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</tbody>
</table>

16. What organizational change outcomes are evident in your unit?

___________________________________________________________________
___________________________________________________________________
___________________________________________________________________

Thank you for taking the time in answering the questionnaire.
Mr Z. Merile
Deputy Director: Epidemiological Research & Surveillance Management
Department of Health
BISHO
Tel.: (040)608 0830

Dear Mr Merile

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN PUBLIC HOSPITALS

My name is Nomawethu Befile and I am a Masters student at the Nelson Mandela Metropolitan University (NMMU) in Port Elizabeth. The research I wish to conduct for my Master’s is the relationship between organisational culture and transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay. The project is being conducted under the supervision of Professor P Jordan and Ms Bowers at the Department of Nursing Science at the NMMU.

The goal of the study is to explore whether a supportive organisational culture transformational leadership and organisational change outcomes are prevalent in public intensive care units within Nelson Mandela Bay. The information will be used to make recommendations that will assist nurses in intensive care units.
The participants that will be taking part is all the staff working in intensive care units including management.

The data will be collected by means of self-administered questionnaires which will entail the following sections

- Section A Demographic data
- Section B Organisational culture
- Section C Leadership
- Section D. Organisational change

Participants will not be coerced and they may withdraw from participating in the study at any time. The information gathered will be managed confidentially.

I am hereby seeking your consent to conduct research in the following Nelson Mandela Bay Municipality public hospitals: Livingstone, Dora Nginza, Provincial Port Elizabeth and Uitenhage Provincial. I have attached a copy of my proposal which includes copies of the consent forms to be used in the research process, as well as copies of the approval letters which I received from the NMMU Faculty of Health’s Research, Technology and Innovation (FRTI) committee and the NMMU’s Research Ethics Committee (Human).

Upon completion of the study, I undertake to provide the Department of Health with a copy of the summary report. If you require any further information, please do not hesitate to contact me:

**Cell:** 083 5161859  
**Fax:** 041 504 2616  
**Tel.:** 041 977 0047  
**Email:** s214331873@nmmu.ac.za

Thank you in advance for your time and consideration regarding this matter.

Yours sincerely,
N. Befile
Annexure D: Letter to Hospital Manager

N. Befile
Faculty of Health Science
Nelson Mandela Metropolitan University

S214331873@nmmu.ac.za
04 December 2015

Dr Hans
Medical Superintendent
Provincial Hospital Port Elizabeth
Private Bag X0003
6001

Dear Dr Hans

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN PUBLIC HOSPITAL

My name is Nomawethu Befile and I am a Masters student at the Nelson Mandela Metropolitan University (NMMU) in Port Elizabeth. The research I wish to conduct for my Master’s is the relationship between organisational culture and transformational leadership and organisational change outcomes in public intensive care units within Nelson Mandela Bay. The project is being conducted under the supervision of Professor P Jordan and Ms. Bowers at the Department of Nursing Science at the NMMU.

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Fax: 041 504 2616             Email: s214331873@nmmu.ac.za

Thank you in advance for your time and consideration regarding this matter.

Yours sincerely,

N. Befile
Dear Unit Manager

RE: REQUEST FOR PERMISSION TO COLLECT DATA

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Fax: 041 504 2616
Tel.: 041 977 0047
Email: s214331873@nmmu.ac.za

Thank you in advance for your time and consideration regarding this matter.

Yours sincerely,

N. Befile
Dear Participant

RE: REQUEST FOR PERMISSION TO COLLECT DATA

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Cell: 083 5161859  
Tel.: 041 977 0047  
Fax: 041 504 2616  
Email: s214331873@nmmu.ac.za

Thank you in advance for your time and consideration regarding this matter.

Yours sincerely,
N. Befile
Annexure G: Ethical Approval Letter from University

Nelson Mandela Metropolitan University

Summerstrand South
Faculty of Health Sciences
Tel. +27 (0)41 504 2956
Fax. +27 (0)41 504 9324
Marilyn.Afrikaner@nmmu.ac.za

Student number: 214331873
Contact person: Ms M Afrikaner
2 November 2015
MS N BEFILE
23 SUME STREET
KWA NOBUHLE
UITENHAGE
6242

RE: OUTCOME OF PROPOSAL SUBMISSION

QUALIFICATIONS: MCur Advanced General Nursing Science Coursework

FINAL RESEARCH/PROJECT PROPOSAL:
THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE, TRANSFORMATIONAL LEADERSHIP AND ORGANSATIONAL CHANGE OUTCOMES IN PUBLIC INTENSIVE CARE UNITS

Please be advised that your final research project was approved by the Faculty Postgraduate Studies Committee (FPGSC) subject to the following amendments/recommendations being made to the satisfaction of your Supervisors:

COMMENTS/RECOMMENDATIONS

1. The aim and problem statement should be in line with one another.
2. Page 11 - Proposal
   A case can be made that the sampling method is non-probability purposive sampling.
3. Consider changing the contact address to an NMMU address to protect the researcher.

The ethics clearance reference number is H15-HEA-NUR-029 and is valid for three years. Please be informed that this is a summary of deliberations that you must discuss with your Supervisors.

Please forward a final electronic copy of your appendices, proposal and REC-H form to the FPGSC secretariat. We wish you well with the project.

Kind regards,

Marilyn Afrikaner
FPGSC Secretariat
Faculty of Health Sciences
Eastern Cape Department of Health

Enquiries: Zonwabele Merile
Date: 26 November 2015
Tel No: 040 608 0830
e-mail address: zonwabele.merile@echoalth.gov.za
Fax No: 043 642 1409

Dear Ms N Befile

RE: The relationship between organizational culture, transformational leadership and organizational change outcomes in public intensive care unit. (EC_2015RP9_820)

The Department of Health would like to inform you that your application for conducting a research on the abovementioned topic has been approved based on the following conditions:

1. During your study, you will follow the submitted protocol with ethical approval and can only deviate from it after having a written approval from the Department of Health in writing.
2. You are advised to ensure, observe and respect the rights and culture of your research participants and maintain confidentiality of their identities and shall remove or not collect any information which can be used to link the participants.
3. The Department of Health expects you to provide a progress on your study every 3 months (from date you received this letter) in writing.
4. At the end of your study, you will be expected to send a full written report with your findings and implementable recommendations to the Epidemiological Research & Surveillance Management. You may be invited to the department to come and present your research findings with your implementable recommendations.
5. Your results on the Eastern Cape will not be presented anywhere unless you have shared them with the Department of Health as indicated above.

Your compliance in this regard will be highly appreciated.

SECRETARIAT: EASTERN CAPE HEALTH RESEARCH COMMITTEE

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Annexure I: Ethical Approval Letter from Livingstone Hospital

28 January 2016

Ms N Befile
Faculty of Health Sciences
Nelson Mandela Metropolitan University

Via email: z214331871@live.umnmu.ac.za

Dear Ms Befile

Re: REQUEST TO BE GRANTED PERMISSION TO DO RESEARCH – “The relationship between organizational culture, transformational leadership and organizational change outcomes in public intensive care units.”

Your request to do research at Livingstone hospital refers.

Authorisation is herewith granted to do your research at Livingstone Hospital.

Kindly contact Mrs Notshe – Nurse Manager, Livingstone Hospital - on 041 405 2220/2223 to make the necessary logistic arrangements.

You are to ensure that your study does not disrupt services and you must maintain strict confidentiality at all times.

On conclusion of your study, a research report detailing your findings and recommendations is to be made available to the hospital.

May I take this opportunity to wish you success with your studies.


DR R MAY
SENIOR MANAGER MEDICAL SERVICES
RMJhm

Together, moving the health system forward

Fraud prevention line: 0800 791 791
24 Hour Call Centre: 0800 033 364

93
Annexure J: Approval Letter from Uitenhage Provincial Hospital

Attention: Ms. N. Befile

Re: Requesting permission to conduct research on ‘The relationship between organizational culture, transformation and organizational change outcomes in Public Intensive Care Units. (EC_2015RP9_820)”

1. With reference to your letter dated 04 December 2015 regarding abovementioned matter, I would hereby grant officially permission for the study to be performed in our hospital.
2. We also acknowledge the letter from NMMU where you are currently busy with your studies confirming this.
3. It is also noted that permission was granted by the ECDHO.
4. Your request have been forwarded to the Deputy Director Nursing, Mrs. A. Goosen and the Area Manager ICU, Mrs. CR. Price.
5. It will be expected from you to make prior arrangements with either of them on the days that you will visit the institution.
6. You must contact the Nursing manager on call if you are planning a visit after hours. Contact number and details of the person on call can be obtained at the security at the information desk.
7. We wish you well with the studies and would appreciate it if you will give us feedback of the findings of the study.

Mrs. MP Klassen
CEO - Uitenhage Provincial Hospital
Annexure K: Letter from Language Editor

TO WHOM IT MAY CONCERN

I, Michele van Niekerk, declare that I have done the language editing for the thesis of:

Nomawethu Befile (214331873)

entitled:

THE RELATIONSHIP BETWEEN ORGANISATIONAL CULTURE, TRANSFORMATIONAL LEADERSHIP AND ORGANISATIONAL CHANGE OUTCOMES IN PUBLIC INTENSIVE CARE UNITS

Submitted in fulfilment of the requirements for the degree of Masters in Nursing (Advanced General Nursing Science) in the Faculty of Health Sciences at the Nelson Mandela Metropolitan University.

I cannot guarantee that the changes that I have suggested have been implemented nor do I take responsibility for any other changes or additions that may have been made subsequently.

Any other queries related to the language and technical editing of this treatise may be directed to me at 076 481 8341.

Signed at Port Elizabeth on 20 January 2017

Mrs M van Niekerk