

**OPEN VISITING POLICY: BELIEFS AND ATTITUDES OF
INTENSIVE CARE CLINICIANS**

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DECLARATION

I, Vivien Herbert, declare that this dissertation is my own work. It is being submitted for the degree of Master of Science in (Nursing) in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.

Signature 

Thirteenth day of May 2011

Protocol Number **M080919**

DEDICATION

To my parents' Sidney and Daphne Herbert, as well as my sisters, Cheryl, Joyce and Sharon and their families for encouraging and supporting me throughout my studies and guiding me through the challenges that life has held in store for me.

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Open visiting: Beliefs and Attitudes of Intensive Care Clinicians.

ABSTRACT

Despite intensive care unit visitation being researched and discussed over the last 25 years, the topic still remains controversial (Sims & Miracle, 2006:175). Open visiting, restrictive visiting and liberalised visiting policies have been three visiting policies discussed in the relevant literature (Quinio, et al., 2002:1391).

The purpose of this study was to determine the beliefs and attitudes of ICU clinicians regarding visiting, visiting hours and open visiting in ICUs with a view to advising changes to existing visiting policies in the best interests of patient care.

A quantitative, descriptive, comparative and contextual two-phase design consisting of 3 steps was utilised in this study. The setting for this study was the adult ICUs (i.e. the coronary care, cardiothoracic, trauma, neuro-surgery and multidisciplinary ICUs of a large quaternary public sector hospital in Johannesburg. Phase one (Step 1) involved the validation (Judgement and Quantification Stage of the already developed data collection questionnaire (Beliefs and Attitudes towards Visitation in an ICU questionnaire) BAVIQ (Berti, et al., 2007: 1060) using Lynn's (1986:383) model of determination and quantification of construct validity. Six purposively selected ICU clinicians were invited to validate the feasibility of each question and the validity of the entire instrument for use in the South African context. Phase one (Step 2) involved the restructuring of the questionnaire according to the results from the validation of the instrument. Phase two (Step 3) as the data collection stage where the restructured questionnaire was handed out to the comparative ICU clinicians for completion. The comparative statistical tests used in this research comprised the evaluation of the p-value and the analysis of the t-test. In evaluating the results of this study there appears to be similarities as well as significant differences

between the beliefs and attitudes of ICU clinicians (doctors and nurses) and ICU (experienced and trained) nurses regarding open visiting.

The ICU clinicians' main concerns were that an open visiting policy could decrease the safety of the staff and patients especially in Gauteng where the study was conducted. This was also one of the factors why the majority of intensive care clinicians in this study claimed not to want to have an open visiting policy implemented in their unit.

Based on the findings of the study it appears as if ICU clinicians do implement an open visiting policy when the patient is dying but due to the existing culture and paternalism of hospital management in these intensive care units there still is resistance to change from the restrictive visiting policy.

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CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 INTRODUCTION

In this chapter an overview of the study will be provided which will consist of past and current literature reviewed, including the history and background of visiting policies. The problem statement, research questions, purpose of the study with the research objectives, as well as the significance of the study will clarify the importance of this study. The research assumptions and the methodological assumptions are briefly commented on before the research methodology is described. Towards the end of the chapter the ethical considerations and the validity and reliability of the study will be noted with finally an overview of the research report.

1.2 BACKGROUND OF ICU VISITING POLICIES

The background to this study will describe the different types of visiting policies and the current controversies around visiting policies in the intensive care unit. The three different types of visiting policies described are open visiting, restrictive visiting and liberalised visiting.

1.2.1 Current controversies around visiting policies in the intensive care unit

Recent literature has indicated the benefits of an open visiting policy in ICU, however many hospitals still restrict visiting in ICU as open visiting hours are seen to be detrimental to the patient and hampers the ICU clinician's ability to deliver care to the patient (Berti, Ferdinand, & Moons 2007:1060). ICU clinicians have also stated that the main benefit of an open visiting policy in the intensive care unit

allows them more opportunities for in-depth and timely communication with a patient's family (Garrouste-Orgeas, Phillippart, & Timsit, 2008:33).

A study done in Boston in 2004 showed that even when proposing to liberalise ICU visiting policies in the intensive care area, ICU clinicians (doctors and nurses) expressed considerable resistance thus making the implementation of the liberalised policy difficult (Berwick & Kotagal, 2004:736). The reasons why the ICU clinicians were resistant to a liberalised visiting policy, according to the above study was that ICU clinicians were worried about the increase in physiological stress that such a visiting policy could cause on patients, interference in the provision of care to the critically ill patients and the physical and mental exhaustion that such visiting causes on a patient's family and friends (Berwick & Kotagal, 2004:736).

ICU clinicians also seem to differ in their perceptions of a 24 hour visiting policy in the intensive care area. In a study in Paris ICU (Garrouste-Orgeas, et al., 2008: 33) doctors claimed that a 24 hour visiting policy never disorganised their care giving of patients, whereas, the ICU nurses claimed that occasionally a 24 hour policy disorganised their care giving. ICU doctors in Paris also appeared to be more comfortable working at the bedside of the patient with the family present and never had to change their behaviour because of the presence of the patient's family (Garrouste-Orgeas, et al., 2008: 33). The ICU nurses in the same intensive care units occasionally claimed that they changed their behaviour when the patients' family was present (Garrouste-Orgeas, et al., 2008: 33).

According to the literature, restrictive visiting policies are still being implemented in many intensive care units worldwide. ICU clinicians have stated that the advantage of an intensive care unit with a restrictive visiting policy is that the patient's confidentiality and privacy is maintained. Patients have also indicated to ICU clinicians that with a restrictive visiting policy they do not need to stay awake all day to entertain family members or friends (Berwick, & Kotagal, 2004:737).

Although this study has not taken family opinion into consideration literature does indicate that ICU clinicians need to incorporate the needs of the visiting family members into their plan of care.

Literature also points out that a balance needs to be reached between the visitors' needs for information and access to their loved ones, with the needs of the ICU clinicians to safely manage the care of the critically ill individual (Farrell, Joseph, & Schwartz- Barcott, 2005:18).

1.2.2 The history of visiting practices and visiting policies

Restricted visiting hours originated in the late 1800 in an attempt to maintain order in the wards of non paying patients (Berwick & Kotagal, 2004:736). Liberal visiting was only started in teaching hospitals in according to Hopping, Sickbert and Ruth, 1992 (cited in Farrell, et al., 2005:20). Burchardi (2002: 1371) from the United states of America (USA) stated: *“It is time to acknowledge that the ICU must be a place where humanity has high priority and it is time to open those ICU’s which are closed.”*

1.2.3 Open visiting policy

An open visiting policy is a policy which imposes no restrictions on the time or length of visits and /or number of visitors (Quinio, et al., 2002:1389).

- **Advantages of an open visiting policy**

Literature does give evidence that an open visiting policy has had a positive psychological effect and a positive cardiovascular effect on the patient, resulting in a decrease in cardiovascular risks and a lower mortality rate (Fumagalli, et al., 2006:950). Family members have expressed in interviews that their anxiety and stress levels were decreased and the level of depression that developed when their relatives had been hospitalised was drastically lower when they were able to visit at any time (Giannini, 2007:301). In France ICU (Garrouste-Orgeas, et al., 2008:33) clinicians noted that visitors could help patients interpret information about their illness and discuss the procedures that needed to be done. In turn the multidisciplinary care team could perform these procedures readily, knowing that the family and patient had discussed these procedures with them. The ICU clinicians also stated that the main benefit of an open visiting policy allowed them to have more opportunities for in-depth and timely communication with a patient’s family.

- **Disadvantages of an open visiting policy**

In Quinio, Savry & Deghelt, 2002:1389-1394) study it became clear that family members had adversely affected the functioning of the unit when an open policy was enforced as there was an increase in traffic in the unit and they became a burden to the staff especially when they were understaffed and needed to manage visitors as well. ICU clinicians have also reported that they felt

some unease while examining a patient with their family members present (Garrouste-Orgeas, et al., 2008:34). According to (Lee, Friendenberg & Mukpo, 2007: 498) family members interrupted ward rounds and procedures that needed to be done timeously and other patient's needs were often overlooked, as ICU clinicians had to attend to their trivial queries.

1.2.4 Restrictive visiting policy

A restrictive visiting policy is one which imposes restrictions on the time of the visits and /or number of visitors (Quinio, et al., 2002:1389).

- **Advantages of a restrictive visiting policy**

There is still much debate in the literature as to whether restrictive visiting hours policies have advantages for the patient and the family. The ICU clinicians have claimed in Flanders that as ICU clinicians they are able to carry out the nursing and medical care of the patient without be interrupted through the day by family members (Bertie, et al., 2007:1061). The daily routine of the ICU is not interrupted by visitors as a set time is allocated for visitors to visit the critically ill patient (Garrouste-Orgeas, et al., 2008:33). For the ICU clinician's one of the biggest advantage of having a restrictive visiting policy is that they feel more at ease when examining the patient without visitors at the patients bed side continuously (Garrouste- Orgeas, et al., 2008:33).

Disadvantages of a restrictive visiting policy

Extracts from literature have also described the disadvantages of restricted visiting hours with the main disadvantage being that ICUs do not demonstrate a humanistic caring environment for the patient or the visitors (Harvey, Ninos & Adler, et al., 1993:484). In a survey conducted in France families expressed an increase in anxiety, depression and stress when a restrictive policy was enforced (Garrouste-Orgeas, et al., 2008:31). Cardiovascular complications were documented as being two-fold more serious in patients in a restricted visiting environment, in particular patients with pulmonary oedema or in shock. There is evidence that patients in a restrictive policy unit had more of an increase in stress hormone levels than those in an open visiting unit (Fumagalli, Bacinelli & Lonostro, et al.,

2006: 950). ICU clinicians have stated that the reason why many ICUs still have restrictive visiting hours is that there is no interference in the provision of care or treatment by the visitors (Slota, Shearn & Potersnak, 2003:364).

1.2.5 Liberalised visiting policy

The best compromise between rigid rules and unregulated visitation appears to be a liberalised visiting policy (Sims & Miracle, 2006:175). A liberalised visiting policy is one where visitors are allowed access during a 24 hour period at specific times stipulated by the staff for each individual family and patient (Quinio, et al., 2002:1389).

- **Advantages of a liberalised visiting policy**

A liberalised visiting policy has been described by (Sims & Miracle, 2006:177) as having a positive effect on the patients' emotional well being, the patients' outcome and in reducing the patients' anxiety. Family members have stated that a liberalised visiting policy has improved their satisfaction and improved communication between patients, families and ICU clinicians. Liberalised visiting policies allow for patients to articulate who visits as well as improving the role of the family as a support system (Plowright, 2007:62).

- **Disadvantages of a liberalised visiting policy**

The disadvantages of a liberalised visiting policy have not been discussed in any literature. The researcher is of the opinion that one of the disadvantages of a liberalised visiting policy is that interference by the family members will occur in the providing of medical and nursing care. The ward rounds by the ICU consultants will be interrupted continuously as visitors will be allowed to visit the patient at lib. Teaching in an ICU with a liberalised visiting policy will also be difficult as family members and visitors will be continuously present at the bedside where procedures need to be taught or explained to the students. A routine for the patient and the ICU clinicians will be impossible to implement as visitors and family members can arrive at any time of the day and then staff will need to delay the provision of care such as suctioning or changing intravenous lines because of the presents of visitors.

1.2.6 Barriers experienced by an ICU with an open visiting policy

Intensive care clinicians at an urban university in New England in the United States of America have revealed that the major barriers they experienced over the previous eight years in implementing an open visiting policy were space, communication (demanding that ICU clinicians speak to all the family members at various times during the day), conflict as well as the burden visitors impose on ICU clinicians (Lee, et al., 2007: 498). In the open visiting policy unit in New England the ICU clinicians experienced that they had to delay the patient care in order to discuss and explain the conditions and procedures of critically ill patients to the many family members (Lee, et al., 2007:498). Relatives that were unruly also caused disruption in the ICU thus delaying ward rounds and the specialised nursing care the ICU clinicians needed to give to the patients (Lee, et al., 2007:499).. Many of the ICUs who participated in the New England study claimed that there was not enough space in the ICU to accommodate all the critically ill patients' visitors as well as the patients themselves (Lee, et al., 2007:498). ICU clinicians also found that the privacy and confidentiality of the patients could not be maintained when an open visiting policy was introduced into their units. Visitors insisting on being with the patient constantly for twenty- four hours were a burden to the ICU clinicians in the above study as they were constantly at the patient's bedsides, expecting their own needs to be looked after by the ICU clinicians as well as those of the patient (Slota, et al., 2003:499).

1.2.7 Visiting policy for the dying patient

As recorded in literature when a patient is dying there appears to be consensus that an open visiting policy should be implemented to allow the family to see the patient at any time of the day and for as long as they desired (Giannini, 2007:304). By allowing the principles of an open visiting policy to be utilised when death is near and the therapeutic limits of treatment have been reached a caring and attentive environment will be provided for loved ones of the dying patient. In most societies today families do not want to see their loved ones die alone thus an open visiting policy is encouraged so that the person is accompanied at the time of death (Giannini, 2007:305).

1.2.8 Findings from different countries

In a recent study in France findings showed that ninety-seven percent of ICUs in France have limited periods of visiting access, whereas a Swedish survey showed that seventy percent of ICUs in Sweden had no restrictions at all on visiting hours. In South Africa there appears to be no specific data pertaining to the types of visiting policies in the ICUs around the country. There has been studies done in North East Italy where the authors found that fifty seven percent of their ICU are not defined as “open” and the ICU clinicians were not incline to be liberal or flexible towards visitors (Anzoletti, Buja & Bortolusso, et al., 2008:372). Interestingly there has been a study done in Belgium where one hundred percent of their ICUs claimed to have restrictive visiting policies (Vandijck, Labeau & Geerinckx, et al., 2010:139).

1.2.9 Visiting in the institution under study

Currently at the academic institution under study hospital management has enforced restrictive visiting hours. A recently written comment in The Journal of the American Medical Association (2004) stated that restrictive visiting is “*neither caring, compassionate nor necessary*” (Giannini, 2007:305). According to Lee, Friedenberg & Mukpo, 2007:497) the natural role of a critically ill patient’s family members as decision maker and protector is not being met when a restrictive policy is implemented. In the academic institution under study a local Newspaper (The Star, 31 March, 2008) stated that visiting hours had been sharply restricted to two hours per day because of a criminal element operating on hospital premises (Tromp, 2008:1). This policy was enacted in April of 2008 by the hospital management and CEO of the hospital where this study took place because of an increase in petty crime within the hospital premises.

The criminal element that the literature is referring to is petty crime and attacks on the doctors and nurses with in the institution. This change in visiting policy could be related to “clinical” motivation by the hospital authorities which thus placing the ICU clinicians in an ethical dilemma.

The ethical dilemma is the conflict of interest that the ICU clinicians have towards the patient and their employee. This is also known as dual loyalty.

1.2.10 Original study in Belgium

The original study was conducted in Flanders (Dutch speaking Belgium) by Berti, Ferdinande and Moons in which they investigated the beliefs and attitudes of ICU nurses on visiting and open visiting hours (Berti, et al., 2007:1061). The “Beliefs and Attitudes towards Visitation in ICU Questionnaire” (BAVIQ) was developed by these authors and used to collect data from five hundred and thirty one ICU nurses. The BAVIQ questionnaire comprised of twenty items assessing beliefs and fourteen items assessing attitudes. The ICU nurses indicated their level of agreement for each statement on a five-point rating scale (Berti, et al., 2007:1060). One of the limitations of the study by (Berti, et al., 2007:1064) was that ICU doctors were not included in the study although the questionnaire was also relevant for them.

1.2.11 Replication study conducted in South Africa

The same questionnaire was adapted and validated and has been used in this study but has included ICU doctors as recommended by (Berti, et al, 2007:1064). The inclusion of ICU doctors facilitated the performance evaluation of all ICU clinicians as a team and ascertained the perceptions of all ICU clinicians, so that in future a patient-centred and family-centred care ICU unit could be established (Berti, et al., 2007:1064).

The reason why a comparison was made in this study between the beliefs and attitudes of ICU doctors and those of nurses was because of documented differences in literature regarding visiting policies among ICU clinicians (Garrouste-Orgeas,et al., 2008:33). There has also been a lack of consensus between ICU clinicians as documented in Paris where the delay in organised care was perceived by ICU doctors as never having occurred in an open visiting policy but occasionally occur by ICU nurses. Changes in the behaviour of ICU clinicians because of the presence of the patient’s family were another difference in perception found among the ICU clinicians (Garrouste-Orgeas, et al., 2008:34). A comparison between the beliefs and attitudes of ICU experienced and trained nurses was also an objective in this study in order to identify any similarities or differences between these two groups of ICU clinicians.

1.3 PROBLEM STATEMENT

Recent literature on visiting policies has indicated that there still remains controversy over which visiting policy best suits patients and ICU clinicians in the intensive care setting (Sims and Miracle, 2006:175). There also remains a dilemma in the ICU setting as to which visiting policy adequately incorporates the family members into the plan of care of the patient, while at the same time allowing the ICU clinicians to safely manage the care of the intensive care patient without any conflict situation occurring (Farrell, et al., 2005:18).

From the literature it is clear that there are advantages and disadvantages in each visiting policy. These advantages and disadvantages differ from patient, to family to ICU clinicians. The main advantage of an open visiting policy is that there is a positive psychological effect on the patient and the family because they are not separated from each other for long periods of time (Berti, et al., 2007:1064). The main disadvantage of open visiting is that the patient's family adversely affects the ICU care delivery by being at the bedside all the time and their need for continuous information to be given to them.

Restricted visiting policies have advantages in that patients' ICU care can be given promptly and timeously (Berwick & Kotagal, 2004:736). The disadvantage in having restricted visiting policies is that there is an increase in stress and anxiety for both the patient and family due to the long periods of time of separation (Berwick, & Kotagal, 2004:736). Liberalised visiting policies have the advantage of improving the patient's emotional well being, the patient's outcome and has also been shown to decrease the patient's level of anxiety (Fumagalli, et al., 2006:951).

The beliefs and attitudes of ICU clinicians need to be researched as their views will influence the type of visiting policy that will be implemented in the intensive care unit. It is therefore important to explore the beliefs and attitudes about visitation of ICU clinicians to ensure that the vulnerable patients in their care receive the best care possible.

1.4 RESEARCH QUESTIONS

The following research questions arise

- Is the BAVIQ (Beliefs and Attitudes in ICU Questionnaire) valid and reliable for the South African setting?
- What are the ICU clinicians (doctors and nurses) beliefs and attitudes on visiting, visiting hours and open visiting?
- What are the differences and similarities between ICU clinicians (doctors and nurses) regarding their beliefs and attitudes towards visiting, visiting hours and open visiting?
- What are the differences and similarities in the beliefs and attitudes of ICU experienced and ICU trained nursing clinicians regarding their beliefs and attitudes towards visiting, visiting hours and open visiting?

1.5 PURPOSE OF THE STUDY

The purpose of this study is to determine the beliefs and attitudes of intensive care clinicians in Johannesburg regarding open visiting, visiting policies and visitation practices in the intensive care unit as their views will alternately influence the type of visiting policy that is implemented in the intensive care unit.

1.6 RESEARCH OBJECTIVES

The aim of the study will be achieved through the following objectives:

- To validate an existing instrument (BAVIQ) exploring ICU doctors and nurses views on visiting, visiting hours and open visiting for application in the South African context.
- To describe the beliefs and attitudes of ICU doctors and nurses regarding visiting, visiting hours and open visiting.
- To describe the differences and similarities in the beliefs and attitudes regarding visiting, visiting hours and open visiting among ICU doctors and nurses.
- To describe the differences and similarities in the beliefs and attitudes regarding visiting, visiting hours and open visiting between ICU experienced and trained nurses.

1.7 SIGNIFICANCE OF THE STUDY

The significance of this study is that in South Africa there is no available data on the practice of visiting hours. There is also no available data in on the beliefs or attitudes of ICU clinicians (both doctors and nurses) on their current practices and views on visiting policies. Currently at the Academic Institution under study hospital management has enforced restrictive visiting hours because of a criminal element present in the hospital setting. A recent comment in the Journal of the American medical association stated that restricting visiting in this way is “*neither caring, compassionate nor necessary*” (Giannini, 2007:305).

According to the South African Nursing Council and the American Society of Critical Care Nursing Forum, the vision of nursing care is to provide quality humane nursing care to all patients with the understanding that humane care for the critically ill patient means caring for the patient as a whole person within the context of their family and their community. By having institutions enforcing policies that are non-clinically motivated lacks humanness and is uncaring as well as places the critical care clinicians in an ethical dilemma. The South African national white paper policy “Batopele” which means “People first” in Sotho includes a principle of consultation which stipulates that clients will be asked what their needs are and how they can be met, but because these patients in the critical care units are comatose and vulnerable (according to the Helsinki declaration) neither their families (who are their legal guardians) nor the clinical care clinicians who are the critical care patients’ advocates were consulted about the visiting hours which are enforced in the institution under study.

This study is significant for the following groups:

- The critically ill patient;
- The critically ill patient’s family;
- The ICU clinicians(doctors and nurses); and
- The Institution

1.8 RESEARCHER'S ASSUMPTIONS

The explicit research assumptions provide a point of departure for this research: meta-theoretical, theoretical and methodological assumptions.

1.8.1 Meta-theoretical assumptions

Meta-theoretical assumptions are defined as “*those aspects of a discipline that are shared by its scientific community*” (Meleis, 2005:11) and are not meant to be tested. The meta-theoretical assumptions in nursing consist of four main aspects: the person, the environment, nursing care and health/illness. These will be discussed within the context of an intensive care unit.

- **The person**

The person in this study refers to the ICU clinicians, the critically ill patients and the patients' families. The critically ill patient is the centre of care for all ICU clinicians, a patient who is vulnerable and who maybe in an unstable haemodynamic state or who has a life threatening condition.

Critically ill patients need skilled intervention in order to have their health care needs met. The functional abilities of the ICU patient's families are threatened by the critical illness of the patient and they must rely on their internal and external supports to restore their equilibrium during this time (Clochesy, Breu & Cardin, 1993:91).

The ICU clinicians are central to this research because for twenty four hours a day they attend to the critically ill patient by providing constant monitoring, frequently evaluating the critically ill patient physically and performing invasive procedures. Therefore they are the key communicators with the patients' families. In the last decade ICU clinicians have created the concept of family centred care thus the beliefs and attitudes of ICU clinicians on visiting, visiting hours and visiting policies need to be reviewed in order to provide the best care for their vulnerable patients (Azoulay, Pochard & Kentish-Barnes, et al., 2005:987).

- **Environment**

In South Africa all citizens have a fundamental right to the provision of health care, but this is often unrealistic within the ICU environment due to the limited distribution of resources. The ICU environment continuously changes because of new knowledge, complex technological advances and

the increasing complexity of patient care. High quality care needs to be maintained while at the same time needs to be controlled. Health care is provided in both public and private hospital in South Africa.

- **Patient care**

The focus of patient care in the intensive care unit by ICU clinicians is to provide care for patients who are experiencing life-threatening or potentially life-threatening illnesses or injury. Patient care that is provided is intended to restore health, alleviate suffering and pain while conserving the rights and dignity of the individual at the same time. In the ICU not only are the physical needs of the patient cared for but also the psycho-social needs, thus a holistic approach to patient care is applied by all ICU clinicians.

The families' need for information regarding the ability of their loved ones to survive through their intensive care stay as well as their needs to be with the patient must be incorporated into the patients' care and made a priority. A balance between the patients' and families' emotional needs and the need to carry out clinical duties must be struck in order for a patient-family-centred care unit to be accomplished.

- **Health/Illness**

The definition of health at its simplest according British Medical Association is "*the absence of physical, mental and social disease*" (Beider, Kahtan,& Kaufman: 2007: 270). The illness and not the health of the patient is the beginning of the illness/health continuum that is defined in the ICU setting. The critically ill patient has been described by (Pitacco, Silvestro & Drigio, et al 2001:27) as "*a seriously ill person for whom initial care is not even aimed at restoring partial health, but towards the stabilisation of the condition so that it becomes a manageable illness*" The author further states that this process, which starts with illness and ideally moves towards health, is unpredictable because "*the results of intensive or resuscitation intervention cannot always be foreseen*", but that without these interventions there would be no movement towards health.

1.8.2 Theoretical assumptions

Theoretical assumptions include theoretical concepts and models that will be used as a point of departure in the study and which will include definitions.

1.8.2.1 Definition of terms for the purpose of this study

Experienced - More than four weeks working time in an ICU setting.

ICU clinician - is either an intensive care nurse or an intensive care doctor who has experience in caring for a critically ill patient in an intensive care unit.

ICU clinician (nurse) - A person registered as a nurse by the South African Nursing Council as either a professional nurse, enrolled nurse or an auxiliary nurse as defined in Chapter two, Section thirty of the Nursing Act (2005:4). Professional nurses have either a 4 year diploma or a 4 year degree in nursing.

ICU trained nurse - A professional nurse who has completed an additional training course in intensive care, either at degree or diploma level.

ICU experienced nurse - This person is a nurse registered either as a professional nurse, enrolled nurse or auxiliary nurse.

ICU clinician (doctor) - for the purpose of this study a ICU clinician is a person registered as a medical doctor with the Health Professional Council of South Africa as either a medical officer, registrar or a consultant working within an intensive care unit.

Medical Officer - a person whom has completed a MBCHB or MBBCH degree, internship and community service as a medical doctor and is working in an ICU.

Registrar - a person who is a medical doctor specialising in a specific field of medicine such as anaesthesia, surgery or general medicine and is working in an ICU.

Consultant - a person who is a medical doctor and who has specialised as a fellow in a speciality in medicine such as anaesthesia, surgery or internal medicine and is working in an ICU.

Intensive care unit (ICU) - is a specifically designated area, with specialised technology and personnel, where patients with unstable and life-threatening conditions are monitored and cared for. The term ICU and critical care unit are often used interchangeably. Adam and Osborn (2004:1) define an ICU *"as a clearly defined area within a hospital where the skills of specialist personnel and technology can be combined in the management and care of the critically ill patients"*

Visiting – to go see and spend time with some one (ICU patient) socially or as a guest / visitor (Webster, 2005: 1314).

Open visiting policy –is one which imposes no restrictions on the time or length of visits and/or number of visitors (Quinio, et al., 2002:1389).

Liberalised visiting policy- is one where visitors are allowed access during a 24 hour period at specific times stipulated by the staff for each individual family and patient (Quinio, et al., 2002:1389).

Restricted visiting policy - is one which imposes restrictions on the time or length of visits and/or number of visitors (Quinio, et al., 2002:1389).

BAVIQ – Beliefs and Attitudes towards Visitation in an ICU Questionnaire (Berti, et al., 2007:1061).

Beliefs – Those ideas of what is important and right that are held to be vital to the individual's sense of self (Harvey, Ninos & Adler et al., 1993:483)

Attitudes - Positive or negative evaluations of objects of thought on dimensions of judgement (Weitein, 2007: 649).

Policies – a definite course or method of action selected to guide and determine present and future decisions (Webster, 2005: 383).

Practices – the actual application or use of a plan or method (Webster, 2005: 917).

1.8.3 Methodological assumptions

Methodological assumptions are concerned with the nature and structure of science as well as research and include the preferences and assumptions of the researcher. Methodological assumptions also explain the method and the specific means used by a researcher to understand a phenomenon. This research has been based on knowledge from (Babbie, Mouton & Vorster, et al., 2002:48) who are of the opinion that an individual's attitudes, perceptions and preferences can be quantified by the assigning of numbers to perceived qualities (Ramnath, 2007:6).

The researcher has a belief in a holistic approach to patient care, and a functional approach to nursing research. Following a functional approach, nursing science becomes practice and can only become effective in a specific context (in the ICU in this research) where the beliefs and attitudes of those involved are taken into account. This study was undertaken with the objective of generating knowledge that will be applicable and useful to the improvement of nursing care.

The scientific method has also been applied to this research in order to make the study applicable, understandable and replicable. Every step of the research process has been reported on in detail, so as to enable other researchers to evaluate and replicate or repeat the enquiry. This research contains a complete statement of all the research findings, without omitting important data and expresses methods and research designs that affect the interpretation of the data.

1.9 OVERVIEW OF METHODOLOGY

A brief overview of the research methodology is provided. Details are provided in chapter 3. A quantitative, descriptive, comparative and contextual two-phase design consisting of 3 steps was utilised in this study. This is a replication study in which an existing questionnaire (BAVIQ) was used for data collection. Written permission was obtained by the researcher from Bertie, Ferndinand and Moon to replicate their study for use in the South African setting (Appendix:K). The setting for this study was the adult ICUs (i.e. the coronary care, cardiothoracic, trauma, neuro-surgery and multidisciplinary ICUs) of large quaternary public sector hospital in Johannesburg. Phase one (Step 1) involved the validation (Judgement and Quantification Stage), of the already developed data collection questionnaire BAVIQ (Beliefs and Attitudes towards Visitation in an ICU Questionnaire, (Bertie, et

al.; 2007: 1060) using Lynn's model (1986:383). Six purposively selected ICU clinicians were invited to validate the feasibility of each question and the validity of the entire instrument for use in the South African context. Phase one (Step 2) involved the restructuring of the questionnaire according to the results from the validation of the instrument. Phase two (Step 3) was the data collection stage where the restructured questionnaire was handed out to all ICU clinicians for the comparative part of this study for completion.

1.9.1 Research Design

A quantitative, descriptive, comparative and contextual two-phase design consisting of 3 steps was utilised in this study.

1.9.2 Target population

In phase one (step 1 and step 2) the study used a panel of purposively selected ICU clinicians (n= 6), who were currently working in the ICUs of a large quaternary public sector hospital in Johannesburg and who had experience in the daily activities performed in ICUs. In phase two (step 3) all ICU clinicians working in the coronary care unit, cardiothoracic, trauma, neuro-surgery and multidisciplinary ICUs of a large quaternary public sector hospital in Johannesburg were invited to take part in the study.

1.9.3 Sample and sampling method

1.9.3.1 Phase one (step 1 and step 2)

A non-probability purposive sampling method was used to select participants to assess the content of the data collection questionnaire to ensure its applicability to the South African setting.

1.9.3.2 Phase two (step 3):

Following a discussion with a statistician a sample size of one hundred and thirty persons ($n=130$) was decided on to provide a good representation of the population from which the sample had to be drawn. The actual number of participants was one hundred and fifty four ($N=154$). This was a comparative sample in which seventy-three doctors and eighty-one nurses were asked to participate in the study.

1.9.4 Data collection

In phase one the purposive panel of ICU clinicians validated each question of the BAVIQ questionnaire and also validated the BAVIQ questionnaire as a whole for use in the South African setting. Step 2 was the restructuring of the existing questionnaire from the results of the validation in step 1. Additional questions that were added by the panel members were proposed to the others for validation and whenever five out of the six members agreed on the question content as being valid, the additional question was added to the questionnaire. The restructured questionnaire was distributed by the researcher to the participating ICUs. All ICU clinicians working in the ICU were invited to participate in answering the refined questionnaire.

1.9.5 Data analysis

Data analysis for phase one consisted of analysing the raw data according to a 4-point Likert scale as suggested by Lynn's model step two. For phase two the data analysis consisted of the raw data loaded onto an Excel spreadsheet. A biostatistician was then consulted for assistance with the analysing of the study data. The significant statistical tests used were the Fischer's Exact test (p) and the Student's paired t-test for the independent groups. The computer statistical package Strata Release 10 statistical software was the statistical programme used.

1.10 VALIDITY AND RELIABILITY OF STUDY

An overview of the reliability and the validity of the study is provided. A detailed discussion follows in chapter 3.

The data collection period had been identified as March, April, and May 2009. The reliability of the study was determined by the Cronbach coefficient a form of descriptive statistics. The validity of the study was determined by applying step 2 of Lynn's model.

1.11 ETHICAL CONSIDERATIONS

A brief overview of the Ethical considerations is provided. Details will be found in chapter 3.

Ethical clearance was obtained from the regulatory authorities as stipulated by the Human Research Ethics Committee of the University of the Witwatersrand. All participants invited to participate in the study gave written consent. Access to the raw data was reserved to the researcher and supervisor only.

1.12 OVERVIEW OF STUDY

The research report is structured as follows:

Chapter One: Overview of the study

This chapter provides an overview of the study and includes the background, the purpose and problem statement, aims and objectives, the significance of the study, the paradigmatic perspectives and relevant definitions and concludes with a brief overview of the research process.

Chapter Two: Literature review

In this chapter, a review of the literature relevant to the various aspects of the study is covered.

Chapter Three: Research Methodology

This chapter describes the research methodology used in this study including the research design, the study setting, eligibility criteria, the sampling process and data collection procedures as well as the development and quantification (i.e. validation) of the research instrument used for data collection.

Chapter Four: Data analysis and discussion of results

In this chapter the results of both phases of the study are presented and discussed.

Chapter Five: Summary, conclusions, limitations and recommendations

In this chapter a summary and conclusion from the main findings are presented, followed by a discussion on the limitations of the study and the recommendations for clinical practice, nursing management, and for further research in this area.

1.13 CONCLUSION

Visiting policies in ICU units need to be reviewed in order for a balance to be achieved between the needs of the patient, family and ICU clinicians (Farrell, et al., 2005:18). In the literature there is evidence that the attitudes of ICU clinicians can create a barrier towards liberating a visiting policy (Lee, et al., 2007:497).

The beliefs and attitudes of ICU clinicians need to be researched as their views will ultimately influence the type of visiting policy that is implemented in the intensive care units (Berti, et al., 2007:1064). Therefore it is important to explore the beliefs and attitudes about visitation of the clinicians to ensure that vulnerable patients in their care receive the best care possible.

In this chapter an overview of the research has been given including the background to the study, the statement of the problem, the purpose, the aim and objectives and the importance of the study. In addition, the research assumptions were defined.

In chapter two a review of the literature relating to the topic under study will be presented.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

There has been much debate for at least 25 years over visiting policies in the intensive care unit involving both the intensive care clinicians and the patients' family members. Unfortunately there have been no studies done in South Africa showing data about what type of visiting policies are being implemented in the intensive care units throughout the country or what the beliefs and attitudes of the ICU clinicians are towards the different types of visiting policies and practices.

Headlines such as “*unsafe Joburg Hospital to become fortress*” or “*patient fury over cut visiting hours,*” has lead to the need for research to be done in South Africa involving the beliefs and attitudes of ICU clinicians towards visiting policies and practices in the intensive care unit. According to a study conducted in Italy researchers found that “*the attitudes of the employees in the ICU are the most important variable that can facilitate the move towards unrestricted visiting policies*” (Anzoletti, et al., 2008:366). As visiting policies are normally regulated by ICU clinicians, their ability to find a balance between allowing the family to be present, the patient's need for rest and their own need to give safe care to the ICU patient is very challenging.

This chapter will begin with a review of the current status of visiting policies and practices in ICU units worldwide. A brief history of visiting policies and practices will be described as well as the types of visiting policies with their advantages and disadvantages will be discussed. Consensus over the dying patient and visiting hours will be explained. Statistics regarding various ICUs in Europe and the United States of America will be described. The South African white paper on human rights, the South African Nursing Council Act and the unique demographics and contexts of the South African setting will be highlighted with reference to visiting policies and practices.

2.2 BACKGROUND TO VISITING POLICIES

Despite intensive care unit visitation being researched and discussed over the past 25 years, the topic still remains controversial (Sims & Miracle, 2006:175). Recent literature has indicated the benefits of an open visiting policy in ICU. However, many hospitals still restrict visiting in ICUs as an open visiting policy is considered to be detrimental to the patient and to the nurse's ability to deliver care to the patient (Berti, et al., 2007:1060).

According to (Farrell, et al., 2005:18), finding the balance between the needs of the patient, family and staff is what is needed in order to apply the correct visiting hours to an ICUs policy or practice. Despite the many benefits to patients, family members and staff in ICUs with open visiting policies it is still important to explore the beliefs and attitudes about visitation of staff to ensure that vulnerable patients in their care receive the best care possible (Bert, et al., 2007:1060).

Over the last decade a family-centred care unit is a concept that ICU physicians and nurses have become aware of, but in practice family members are still restricted into the intensive care unit because of rigid visiting policies that are enforced by staff (Azoulay et al., 2007:987). The natural roles that family members play such as decision making, providing a medical history and offering a sense of security to their loved ones cannot therefore be fulfilled (Lee, et al., 2007:497). Family members are known to suffer from psychological effects such as increased anxiety, increased depression and stress when their loved one is admitted to the intensive care unit. If they are restricted from seeing their loved one in the intensive care unit their symptoms worsen and put them at risk for post-traumatic stress syndrome (Azoulay, et al., 2007:987).

2.3 HISTORY OF VISITING POLICIES AND PRACTICES

Restricted visiting hours originated in the late 1800s in an attempt to maintain order in the wards of non paying patients (Berwick & Kotagal, 2004:736). For patients who could afford to pay and were in private or semi-private wards open visiting was allowed. There appears to be nothing more documented about visiting policies until the 1960s. In this era restricted visiting hours were instituted for both paying and non-paying patients to protect the patient and the family from exhaustion (Berwick & Kotagal, 2004:736).

The US public health services suggested in 1965 limiting visitors and only allowing five minutes every hour for visitors to see a patient. A waiting room also needs to be available in close proximity to the ICU unit (Farrell, et al., 2005:20). Many hospitals in the 1980s and 1990s restricted visiting again because of the disruptions and demands made by visitors on the nursing staff. From 1992 (Hopping, Sickbert & Ruth, 1992:20) found significantly more liberal visiting hours in teaching hospitals than in community hospitals but many of these hospitals were planning to change towards more lenient or individualized visiting hours (Farrell, et al., 2005:20). In 2002 Burchardi (as cited in Giannini 2007:299) from the United States of America stated *“It is time to acknowledge that the ICU must be a place where humanity has high priority and it is time to open those ICU’s which are closed.”*

In the literature countries such as Italy, Belgium, France and Norway have carried out many studies investigating the perceptions, opinions and especially the attitudes of nurses towards visiting policies. No studies done in South Africa were found that explored the views of any ICU clinicians (doctors or nurses) regarding their beliefs or attitudes towards visiting policies or practices. With the cultural and demographical differences such as extended family members in other provinces and crime in South Africa this topic poses problems for all patients, families and ICU clinicians. Italy also has no data as yet about how many intensive care units in their country have open or restricted visiting policies (Giannini, 2007:299). In Sweden 70% of their ICUs have open visiting policies and in France 97% of their ICUs have restricted visiting hours. (Giannini, 2007:299). North America has 50% of their ICUs implementing an open visiting policy whilst 50% are still implementing restricted visiting hours in their intensive care units (Giannini, 2007:299).

2.4 DIFFERENT TYPES OF VISITING POLICIES

ICU visitation falls into three main categories namely, open, restrictive and liberalised. An open visiting policy is a policy that imposes no restrictions on the time of visits, length of visits, and / or number of visitors (Quinio, et al., 2002:391). A liberalised visiting policy allows visitors access for a 24 hour period but staff restrict visits at specific times that suit the unit routine for example during ward rounds and handover and is individualized for each patient and family (Quinio, et al., 2002:1391)

A restrictive visiting policy is a policy that imposes restrictions on the time of visits, length of visits, and/or number of visitors (Quinio, et al., 2002:1391).

2.4.1 Open visiting policies

- **Advantages of an open visiting policy**

As found in literature an open visiting policy appears to be what the patient-family unit prefers and is more appropriate for a family-centred care facility (Kleinpell, 2008:334). Patients have described that by having their relatives at the bedside they feel safe and protected (Lee, et al., 2007:497).

The reasons for this are that the patients' relatives can observe the care they are receiving and prevent possible errors that may occur in the intensive care units which often are understaffed and very busy (Takman & Severinsson, 2005:627). Patients have also shown a decrease in anxiety levels and stress levels and an enhanced sense of calmness if their family members are able to visit any time during a 24 hour day. There is also evidence that an open visiting policy has a positive psychological effect and a positive cardiovascular effect on the patient thus lowering the rate of mortality in critically ill patients (Fumagalli, et al., 2006:950). According to (Giannini 2007:302) the rights of the patient should be maintained throughout their hospitalization and especially in the intensive care unit because of the critically ill patient's dependence and fragility. An open visiting policy allows for the rights of the patient and the family to be acknowledged and maintained (Giannini, 2007:302).

Family members have expressed in interviews that their anxiety and stress levels have decreased and their level of depression which develop when their loved ones have been hospitalized are drastically

lower when they are able to visit them at any time (Giannini, 2007:301). In New England (United States of America) families have claimed that by being present and seeing with their own eyes the work that is carried out on their critically ill relative has given them reassurance and has strengthened their conviction that their relative is being properly cared for throughout the day (Lee, et al., 2007:497). Family members claim that they are able to be given reassurance, up-to-date information and remain close to the patient when they are allowed to be at the patient's bedside at any time (Giannini, 2007:301). Being able to visit at anytime has enabled family members to continue with their other daily commitments and to focus on their own needs and others they are responsible for without having to adjust their life as is needed when a restricted visiting policy is enforced (Sims & Miracle, 2006:175).

ICU clinicians (doctors and nurses) do agree that patients need their families to visit at any time as this encourages an improvement in their recovery and strengthen their will to live (Slota, et al., 2003:363).

ICU nursing staff claim that the family can give them valuable information about the patient which can enhance their nursing care when there is an open or flexible visiting policy as more time can be spent with the family (Slota, et al., 2003:364). ICU clinicians feel that if the family is with the patient during their intensive care stay they can learn to help render their critically ill relative basic care. The ICU clinicians will then be able to educate the family about the patient's discharge needs and how to give the patient the best home care that will be needed once the patient is at home. ICU nursing clinicians have been able to get to know the patient's better through lengthy discussions with family members when an open visiting policy is implemented, leading to the development of a trusting relationship between the ICU clinicians, the patient and family (Berti, et al., 2007:1064).

An increase in job satisfaction for the nursing and medical staff and the family as a helpful support system has also been stated in the literature as an advantage to an open visiting policy. Nurses do believe that visitors can help the patient interpret information about their illness and discuss the procedures that need to be done (Garrouste-Orgeas, et al., 2008:31). This will enable the multidisciplinary care team to perform procedures readily, knowing that the family and patient have discussed them. ICU doctors have stated that the main benefit of an open visiting policy has allowed them to have more opportunities for in-depth and timely communication with a patient's family (Garrouste-Orgeas, et al., 2008:34).

There is evidence in the literature that there are disadvantages to an open visiting policy that can have negative effects on patients' ICU nursing care as well as ICU medical care.

- **Disadvantages of an open visiting policy**

There is evidence that patients do not get enough rest and show signs of fatigue when their families are at their bedsides 24 hours a day (Sims & Miracle, 2006:177). The critically ill patients' nursing care as well as procedures can be delayed as less time is spent with the patient. Harmful physiological consequences such as an increase in heart rate and increase in blood pressure can become evident in critically ill patients as the anxiety of their relatives is often transferred to them (Sims and Miracle, 2006:177). Septic complications can occur due to the high influx of visitors into the intensive care unit which can compromise a patient's outcome (Fumagalli, et al., 2006:950).

Family members can adversely affect the functioning of a unit in that there is an increase in traffic in the unit and they can become a burden to the staff especially when they are understaffed and need to manage visitors as well (Quinio, et al., 2002:1392). Family members have claimed they feel obliged to stay for the full duration of the visiting time and do become exhausted and begin to neglect their own needs. They then become a burden to the nursing staff (Quinio, et al., 2002:1392).

Interruption or postponement of nursing care and procedures when family members are present at the bedside 24 hours of the day has been evident in Belgium resulting in the health care professionals being stressed (Berti, et al., 2007:1064).

The Medical staff as well as nursing staff has also reported that they do feel some unease while examining a patient when their family members are present 24 hour a day (Garrouste-Orgeas, et al., 2008:34). Ward rounds and procedures that need to be done timeously may be interrupted by family members. Other patients' needs can often be overlooked as trivial queries are been attended to by the medical staff (Lee, et al., 2007:499). Nursing staff find it very difficult to split their attention between the unstable patient and the anxious family, thus they are unable to complete their work with the patient. In Europe there are hospitals that prefer restricted visiting policies, as the perception there is that excessive visits are detrimental to the patient and to their units (Berti, et al., 2007:1060).

2.4.2 Restrictive visiting policies

- **Advantages of a restrictive visiting policy**

Patients can have un-interrupted sleep and get the rest needed for recovery (Slota, et al., 2003:1392). There is a decrease in the physiological effects that patients suffer when relatives are present such as an increased heart rate, increased respiratory rate and increased agitation (Quino, et al, 2002:1392). The risks of septic complications in the patient are decreased as the limiting and restricting of visitors are enforced (Fumagalli, et al.,2008:950). The patient's privacy and confidentiality is maintained all the time and they do not have to stay awake all day to entertain a family member or visitor (Berwick & Kotagal, 2004:737). Family and friends do not become physically and mentally exhausted as there are restrictions on the times they are allowed to be with their relative (Berwick & Kotagal, 2004:737).

Intensive care staff in New England (USA) have voiced reasons why they still have restricted visiting in their unit they do not have enough space for all the patients' visitors, the burden of caring for family members as well as the critically ill patient and the conflicts that they may find themselves in when the family is present 24 hours a day (Slota, et al., 2003:1392). Furthermore procedures that need to be done can be done timeously and communication with the patient can be held privately and confidentially. Examination of the patient can be preformed without interruption and with ease.

There are disadvantages to restrictive visiting hours with the main criticism being that the critically care environment is not one that demonstrates humanistic care (Harvey, et al., 1993:485).

- **Disadvantages of a restrictive visiting policy**

In a survey in the United States family members felt that a restrictive visiting policy failed to allow them to maintain their familial roles with the critically ill patient. Patients evaluated also claimed that they do not get the support and reassurance needed in intensive care if their families could not see them (Sims & Miracle, 2006:175). Another survey conducted in France revealed that family members were not able to visit at traditional times due to work or other engagements and they expressed an increase in anxiety, depression and stress when a restrictive policy was enforced (Garrouste-Orgeas, et al., 2008: 34). Patients with pulmonary oedema or who are in shock are known to be at a greater risk of suffering cardiovascular complications than other patients in a restrictive visiting policy unit (Fumagalli, et al.,

2006:950). Patients have also been shown to have an increase in stress hormones to a higher degree in a restrictive visiting policy unit than those that have been in an open visiting unit (Fumagalli, et al., 2006:950).

In a study done in France ICU clinicians commented that they were unable to form a trusting relationship with the critically ill patient's family because of the limited time they had when a restrictive visiting policy was implemented (Garrouste-Orgeas, et al., 2008:34). The ICU clinicians raised their concerns that with a restrictive visiting policy they were not able to have in-depth conversations with the relatives as time was limited (Garrouste-Orgeas, et al., 2008:34). ICU clinicians have become aware that in a restrictive visiting practice the family is not educated effectively about their loved one's illness and discharge needs as there is not enough time available for the ICU clinicians to teach them (Takman & Severinsson, 2005:623).

2.4.3 Liberalised visiting policies

- **Advantages of a liberalised visiting policy**

A liberalised visiting policy has been described by (Sims & Miracle 2006:175) as having a positive effect on the patient's emotional well being, the patient's outcome and in reducing the patient's anxiety (Sims & Miracle, 2006:175). Family members have stated that they are more satisfied with a liberalised visiting policy as they can sit with the patient at a time that suits them and not feel they have to be by the patient's bedside the whole day (Sims & Miracle, 2006:177). Families have also commented that they receive more information about the patient's condition when they see the ICU clinicians more often (Sims & Miracle, 2006:178). Liberalised visiting policies do allow the patients to rest more as they do not have to try and stay awake at specific times (Sims & Miracle, 2006:178).

- **Disadvantages of a liberalised visit policy**

The disadvantage of a liberal visiting policy has not been discussed in the literature.

2.5 COMMONALITY IN THE LITERATURE

As recorded in the literature there are personal as well as institutional barriers that are factors that discredit an open visiting policy, but when a patient is dying there appears to be consensory throughout the medical and nursing fraternity (Giannini, 2007:302). It appears that an open visiting policy is best for the dying patient. Rules and restrictions are consistently suspended when a patient is dying by both the nursing staff and the medical team. It sums that we still have a society which does not like to “*see people die*” on their own, thus a person is accompanied at the time of death, and an open visiting policy offers this need. The possibility of providing care and attention even when the therapeutic limits have been reached and death is approaching is also once again achieved when an open visiting policy is in place in an intensive care unit (Giannini, 2007:302).

2.6 CURRENT VISITING POLICY IN THE ICUs WHERE THE PRESENT STUDY WAS UNDERTAKEN

Currently at the institution where this study took place, the hospital standing order for visiting contradicts the practice that is in place. The standing order states that “*in the intensive care unit relatives are allowed in 24 hours a day, (an open visiting policy) with the authorization of the charge sister*”. At the same time as these standing orders are supposed to be adhered to, hospital management on the 15 June 2008 started to enforce a one slot visiting policy from 15:00 – 17:00. No ICU clinicians to date were asked for their opinions or what their perceptions were for this type of restrictive policy.

The critically ill patient’s needs as well as the family needs were dismissed and not taken into consideration. The community was warned about this change in the local newspaper which stated that the reason the visiting hours had been changed was because a criminal element had started operating on the hospital’s premises (The Star, 31 March, 2008:1).

This is clearly a contradiction in terms of the current standing orders and does not respect the rights of the critically ill patient or take into consideration family needs. Family members of the critically ill patients are totally ignored and not allowed in before the stipulated times and have often not been with

their loved one at the time of death or at the critically ill stage of their illness because of this rigid policy.

With the current restricted policies enforced, intensive care clinicians, especially nurses are unable to act as adequate advocates for their patients. Critical care clinicians acknowledge that the family needs were not been taken into consideration, when these policies were drawn up. According to the South African Nursing Council and the American Society of Critical Care Nursing Forum the vision of nursing care “*is to provide quality humane nursing care to all patients with the understanding that humane care for the critically ill patient means*” caring for the patient as a whole person within the context of their family and their community. By having the institution enforcing policies that have not taken all individual rights into consideration is inhumane and uncaring as well as placing the critical care clinicians’ in an ethical dilemma. Critical care clinicians are referred to as professionals and thus they have to respect the institution they work for (their employer) as well as respect their patients’ and families’ needs according to their ethical work code.

The South African national white paper policy “Batopele” which means “*People first*” in Sotho includes a principle of consultation which stipulates that the client will be asked what his/her needs are and how they can be met (www.kznhealth.gov.za/bathopele.htm).

These patients in the critical care units are comatose and are vulnerable people (according to the declaration of Helsinki). Neither their families (who are their legal guardians) nor the clinical care clinicians who are the critical care patient’s advocates were consulted about the visiting hours which are enforced in the institutions where this study was conducted.

Lastly, under the South African constitution of Human Rights in Chapter One of the Government Gazette it is stipulated that the values of human dignity, human rights and freedom have to be respected by all in the South African republic (Constitution of Republic of South Africa no: 108. 1996:1243). By restricting the critical care patients’ families from visiting them (in a restricted policy) the patient’s constitutional human right is denied (www.kznhealth.gov.za/bathopele.htm).

Experience has shown that family members are able to help with the patients nursing care especially in their turnings and basic nursing care (i.e. bathing), and this makes them feel as if they are doing something for their loved ones and not just watching helplessly. Parents that are at work the whole day

have asked to come at a time after work to see the critically ill relative and have been denied access by the ICU clinicians, hospital management and the security system implemented at the hospital where the study was carried out. As critical care clinicians our care for the patients in the intensive care unit is aimed at being optimal and holistic but can only be achieved 100% if we allow family to be part of their care and part of the decision making in their treatment and health care.

2.7 QUESTIONNAIRE USED FOR DATA COLLECTION

In Belgium Berti, Ferdinande and Moons decided in 2007 to research the beliefs and attitudes of ICU nurses because an unrestrictive visiting policy in most of Europe was associated with reduced cardio-circulatory complications, which could be attributed to a reduction in patient's anxiety and a more favourable hormonal profile. This was evident in a controlled randomized trial done by (Fumagalli, et al., 2008:945). Findings supported the shifting from a restrictive visiting policy to one that was more open (Berti,et al., 2007:1060).

The objective of the Belgium study referred to above was to describe the beliefs and attitudes of ICU clinicians (nurses only) towards visiting, visiting hours, and open visiting policies in a critical care setting. A descriptive, cross-sectional and multicentred study was the design used. The study took place in seventeen hospitals in Flanders (the Dutch speaking section of Belgium) and consisted of thirty ICUs made up of mixed adult medical units, medical only units, surgical only units, coronary care units, post cardiac surgical units as well as a burns ICU unit. A total of nine hundred and twenty three nurses were employed in the enrolled ICUs but only five hundred and thirty one participated in the survey.

The survey consisted of two questionnaires in which the first questionnaire enquired about the current visitation practices of each participating ICU and the second questionnaire named "*Beliefs and Attitudes toward Visitation in ICU Questionnaire (BAVIQ)*" assessed the beliefs and attitudes of the ICU nurses toward visitation and visiting hours. A 5-point Likert scale scoring system was used from which the participants had to rate their agreement. The content validity was assessed by a panel of six ICU clinicians (two ICU consultants and four ICU nurses). The questionnaires took 10-15 minutes to complete and three to four weeks for all to be returned to the researcher.

The statistical analysis was completed using descriptive and inferential statistics with the level of significance set at $p < 0.05$. As the questionnaire consisted of both negatively as well as positively formulated questions an overall average score was calculated for all the belief items. A score of zero corresponded with beliefs that were strongly opposed to open visitation and a score of 4 corresponded with beliefs that were strongly in favour of open visitation.

The results of the study showed that all the ICUs except one used a restrictive visiting policy which allowed visitors for 30-40 minutes, two or three times a day, at pre-assigned times (Berti, et al., 2007:1062). The majority of the ICUs did adapt their policy when the patient was dying, if the family had practical problems in complying with the existing policy and if the patient had any emotional needs (Bertie, et al., 2007:1062). There were restrictions in all the ICUs on the number of people at one time visiting the patient with only two or three visitors at one time (Berti, et al., 2007:1062).

The nurses in the BAVIQ study also believed that visitation had a beneficial effect on the patient and that visitors could help interpret information for the patient (Berti, et al., 2007:1062). The same finding was evident in a study done by Gonzalez (2004). The nurses did not feel that an open visiting policy aided the patient in recovering or that it offered more comfort to the patient (Berti, et al 2007:1062). They also felt that open visiting impeded the planning of the nursing care process and caused the ICU nurses to spend more time with the family providing information (Berti, et al., 2007:1062) .

The overall score on the beliefs scale was 1.87 (SD = 0.5) which indicated that the nurses tended to be slightly sceptical towards unrestrictive visitation. In the results of the attitude section in the questionnaire it was apparent that nurses the in were in favour of exceptions to a restrictive visiting policy, if the patient was dying, if the patient or family had any emotional needs if the family had practical problems with the existing visiting policy (Berti, et al., 2007:1062). Although a slight majority wanted the visiting policy to be flexible in the first 24 hours of the patient's admission, the nurses did not want the patient to have control over the time of visiting, the duration of visiting nor the number of visitors allowed (Berti, et al ., 2007:1062). Most nurses still wanted to restrict the number of visitors in the first 24 hour period and wanted the number of visitors to be limited at all times as well as how many at the same time (Berti, et. al., 2007:1062). It was also evident in this section of the questionnaire that the nurses did not want to liberalise their units to an open visiting policy (Berti, et al., 2007:1062).

The results from this study indicated that these ICU nurses were sceptical towards an open visiting policy even though the literature indicated that unrestrictive policies were associated with fewer cardio-circulatory complications. It was thus suggested by (Bertie, et al., 2007:1062) that the culture of Flemish ICUs was not yet in favour of an open visiting policy.

One of the limitations that (Bertie, et al., 2007:1063) found in their study was that ICU physicians were not included but these results were also relevant to ICU physicians as they were also involved in the development and implementing of visiting policies (Berti et al., 2007:1062). They were are also of the opinion that by including the ICU physicians, the performance of the ICU team with respect to patient and family-centred care could also be evaluated (Berti,et al., 2007:1063)

The results of the BAVIQ questionnaire showed that the ICU nurses were slightly sceptical of an open visiting policy, a barrier that hospitals would face when wanting to change to a more liberalised visiting policy (Berti, et al., 2007:1062). Furthermore they were of the opinion that a successful adoption and implementation of a more open visiting policy was dependent on the beliefs and attitudes of ICU nurses and their satisfaction with visitation and visiting policies (Berti, et al., 2007:1060).

As concluded by the authors of the original study, ICU physicians and ICU nurses have been included in this study since attitudes, beliefs, habits and cultural backgrounds of the all ICU clinicians need to be assessed in order for a successful visiting policy to be developed and implemented.

The South African ICU experiences have found that many family members do not want to comply with the visiting policy and that ICU clinicians have been instructed by hospital management not to adapt the visiting hours which then leads to a conflict situation. This has become a daily occurrence with the implementation of only one visiting slot mid-afternoon in the hospital in which this study has been conducted. A decision was also made to compare the beliefs and attitudes of ICU clinicians (doctors and nurses) as well as ICU trained and experienced nurses so as to obtain their opinions about an open visiting policy as well as to determining from their beliefs and attitudes whether a change towards a more open visiting policy would be acceptable.

2.8 CONCLUSION

Incorporating visiting family members into the care plan is complex and requires balancing the visitor's needs for information and access to a loved one with the ICU clinicians' need to safely manage the care of a critically ill individual (Farrell, et al., 2005:20). The ideal open visiting policy has been identified to be one that has no universal restrictions and is highly individualized for each patient but meets the needs of the patient and family as well as the nursing and medical staff.

The successful adoption and implementation of an open visiting policy will depend on what the beliefs and attitudes of the ICU clinicians have towards such a policy.

CHAPTER THREE

RESEARCH DESIGN AND RESEARCH METHOD

3.1 INTRODUCTION

(Sims & Wright, 2000:7) refer to methodology as the general principles that guide a study known as the research design and research method. In this chapter the research design, the research setting, the sample criteria, sample process and data collection procedures will be described. The validation of the existing questionnaire will also be illustrated.

3.2 RESEARCH METHODOLOGY

A quantitative, descriptive, comparative and contextual two-phase design consisting of 3 steps was utilised in this study. The setting for this study was the adult ICUs (i.e. the coronary care, cardiothoracic, trauma, neuro-surgery and multidisciplinary ICUs) of large quaternary public sector hospital in Johannesburg. Phase one (Step 1) involved the validation (Judgement and Quantification Stage), of the already developed data collection questionnaire BAVIQ (Beliefs and Attitudes towards Visitation in an ICU Questionnaire, (Bertie, et al.; 2007:1060) using Lynn's model (1986:383). Six purposively selected ICU clinicians were invited to validate the feasibility of each question and the validity of the entire instrument for use in the South African context. Phase one (Step 2) involved the restructuring of the questionnaire according to the results from the validation of the instrument. Phase two (Step 3) was the data collection stage where the restructured questionnaire was handed out to all ICU clinicians for the comparative part of this study for completion.

3.3 RESEARCH DESIGN

A comparative, descriptive and contextual two phase design was used to determine the beliefs and attitudes of intensive care clinicians about visiting practices and visiting policies in their unit.

3.3.1 Descriptive research design

A descriptive research design is a scientific method which involves observing and describing the behaviour of a subject without influencing it in any way. The purpose of using a descriptive research design was to provide a picture of the beliefs and attitudes towards visiting policies and visiting practices used by ICU clinicians (doctors and nurses) as well as to describe the profile of the ICU clinicians who worked in the ICU of a quaternary public sector hospital in Johannesburg. Data was described by means of descriptive statistics. In order to provide a picture of the beliefs and attitudes of ICU clinicians towards visiting policies and visiting practices it was also necessary to collect descriptive data pertaining to the profile of ICU clinicians (doctors and nurses). The researcher used a descriptive design because according to (Burns & Grove, 2005:232) this design can help identify problems within any current practice. According to Burns and Grove (2005:233) this design is also an important one for obtaining knowledge in an area in which little research has been done

3.3.2 Comparative research design

The purpose of using a comparative design was to provide a picture of the differences in beliefs and attitudes towards visiting policies and visiting practices between ICU clinicians (doctors and nurses) in a quaternary public sector hospital in Johannesburg. *“It also allows for more information to be gained about the characteristics within the particular field studied”* (Burns & Groves, 2005:234). No manipulation was required within this comparative design; however differences and similarities were described. Inferential statistics were used to determine the differences and similarities in beliefs and attitudes to visiting policies and visiting policies among ICU clinicians (doctors and nurses). A comparative design was used because it examined and described the differences in variables between the two groups (ICU doctors and nurses) that occurred naturally in the ICU setting, as no data is available in South Africa regarding the differences in the beliefs and attitudes towards visiting policies and visiting practices among ICU clinicians (doctors and nurses). From the data obtained it was also possible to compare the beliefs and attitudes between the experienced ICU nurses and the trained ICU nurses.

3.3.3 Contextual research design

An intensive care unit is a specific area where patients with life threatening conditions are cared for by both ICU nurses and doctors. The ICUs that were included in this study were the coronary care, cardiothoracic (heart surgery), trauma, neuro- surgery (brain surgery) and multidisciplinary (medical and general surgery) ICUs. The structure of the ICUs included in this study is different. The multidisciplinary (medical and surgery) as well as the trauma ICU has individual rooms for each patient thus there is a lot of privacy for the patient and the family in these units. Unfortunately in the coronary care, cardiothoracic (heart surgery) and neuro- surgery (brain surgery) the patients are in an open structured ICU. These patients are separated by only a curtain and thus the privacy and confidentiality of the patient and the family cannot be ideally ensured as the visitors and patient that are next to one another can hear what is been to the other patient.. The conditions of the critically ill patients were serious and life threatening, thus their families were only allowed to visit at certain times and for a limited time period. The total number of beds in these ICUs, where this study took place, was 45 and the number of patients admitted per month into these intensive care units was 242. The total mortality rate was 13% per month.

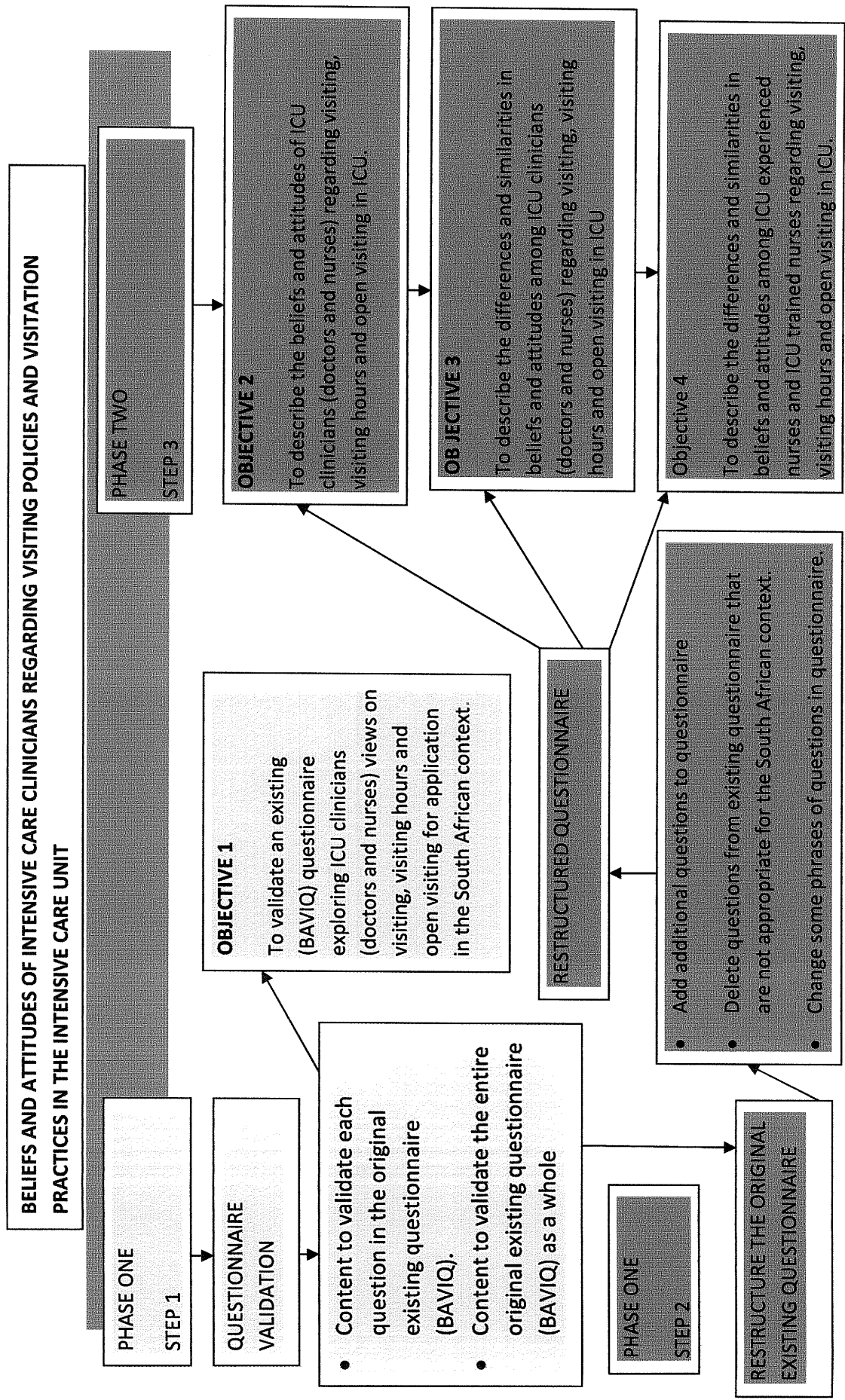
This study was contextual in design as it was conducted in a specific context. The quaternary public sector hospital consisted of 5 different ICU units as mentioned above. ICU clinicians (doctors and nurses) working with the critically ill patients in these intensive care units were the participants who were invited to be part of this study. The total number of ICU clinicians (doctors and nurses) working in these intensive care units was 196.

The nursing staff in the ICUs could either be auxiliary nurses, enrolled nurses, professional nurses, senior professional nurses, chief professional nurses, clinical ICU facilitators or operational managers, numbering 131. The education of these nurses varied as well as their years of experience. The doctors working in the ICUs were from three main disciplines namely: anaesthesia, surgery, and general medicine, a total of 65. The three different categories of doctors were medical officers, registrars and consultants. With the expertise of a biostatistician it was decided to include all ICU clinicians (doctors and nurses) who had a minimum of one month working experience in an ICU environment in order to get a large enough sample size and an even ratio size between the number of ICU nurses and ICU doctors.

The decision to select a quaternary public sector hospital in Johannesburg to conduct this study was taken because it consisted of five different ICUs. This quaternary hospital is a public sector hospital (for patients that are not on a medical aid) and is located in the province of Gauteng. Patients with any medical or surgical condition that cannot be treated in the community clinics and satellite public sector The academic training of both ICU disciplines there occurred in the selected hospital and the varied ICU population that was available enriched the data and the results of this study.

3.4 RESEARCH METHOD

This study has two phases to its research methodology, each consisted of different steps. Phase one (Step 1) involved the validation (Judgement and Quantification Stage), of the already developed data collection questionnaire (BAVIQ = Beliefs and Attitudes towards Visitation in an ICU Questionnaire (Appendix A). Phase one (Step 2) involved the restructuring of the questionnaire according to the results from the validation of the instrument. Phase two (Step 3) was the data collecting stage where the restructured questionnaire (Appendix B) was handed out to all ICU clinicians involved in the comparative part of this study for completion. Refer to figure 3.1 for an overview of the research plan for this study.



The target population for this study is 196 ICU clinicians (doctors and nurses).

Figure 3.1 Overview of research plan

3.4.1 Phase one

3.4.1.1 Step 1

Phase one step 1 involved validating the content of each question in the original (BAVIQ) questionnaire and validating the contents of the BAVIQ questionnaire as a whole for use in the South African setting.

Lynn's model (1986) was the model reviewed in the literature and was followed to validate the content of the already existing BAVIQ questionnaire. According to (Lynn, 1986:382) the content validity of a questionnaire is the determination of the content representativeness or the content relevance of the items of a questionnaire (Lynn, 1986:382). As this study is a replication of the original BAVIQ questionnaire compiled in Belgium, Lynn's model states that the original questionnaire still needs to be validated again for use in the South African setting. Lynn's model (1986:382) consists of two stages. Stage one is the developmental stage and stage two the quantification stage (Lynn, 1986:382). The model also states that because this questionnaire has already been designed, stage one can be ignored (Lynn, 1986:382). Only stage two of Lynn's model was therefore applied to the original (BAVIQ) questionnaire. Stage two of Lynn's model consists of two steps. Step one is the quantification of content validity of each question in the questionnaire and step two the quantification of content validity of the entire questionnaire Please refer to Appendix A for a copy of the original BAVIQ questionnaire prior to validation. .

In this study in phase one (step 1) six purposive panel members who met the inclusion criteria were invited to participate in the judgment and quantification stage (Appendix C). The sample in this phase of the study consisted of six intensive care clinicians (doctors and nurses) working in the hospital's coronary care, cardiothoracic (heart surgery), trauma, neuro- surgery and multidisciplinary (medical and general surgery) ICUs. Specific instructions were given to each member as to how to determine the content validity of each question in the questionnaire. According to (Lynn, 1986:384) the most widely used quantification of content validity is the index of content validity (CVI). The CVI uses an ordinal rating score which rates the relevance or importance of the questions on the questionnaire. The six members used a 4-point ordinal rating scale to assess each question of the questionnaire. (Appendix D) The same six members were also invited to determine the content validity of the entire questionnaire and to

add any additional questions they thought needed to be included in the questionnaire from a South African perspective (Lynn, 1986:384).

Lynn, (1986: 382) also states that the content validity of each question is determined by the proportion of the panel members who rate that question as content valid by scoring it as either a three or four. According to “*the proportion of experts whose endorsement is required to establish content validity beyond the 0.5 level of significance*” (Lynn 1986:384), if six panel experts are used to validate the questionnaire at least five experts need to rate each question as either a three or a four (Lynn 1986:384).

- **Population for Phase one: Step 1**

The population in this phase of the study was 196 (N= 196). Included all the intensive care clinicians (doctors and nurses) working in the coronary care, cardiothoracic (heart surgery), trauma, neuro- surgery (brain surgery) and multidisciplinary (medical and general surgery) ICUs of the quaternary public sector hospital in Johannesburg.

- **Sample method for Phase one: Step 1**

A non probability purposive sampling method was chosen in Phase one: Step 1. Non-probability purposive sampling is referred to as judgmental or selective sampling (Burns & Groves, 2005:353). This sampling method was used in order to select information rich participants with experience in ICU and who were knowledgeable of the challenges associated with ICU visiting policies. As no data exists in South Africa that has included ICU clinicians (doctors and nurses) in assessing their beliefs and attitudes towards open visiting, purposive sampling was the best way to gain insight into a new area of study or to obtain in-depth knowledge about a complex subject (Burns & Groves, 2005:352). The diversity of the participants that were working in the quaternary public hospital in Johannesburg was also a reason that this type of sampling was chosen.

The criteria for the inclusion of participants onto the panel were:

- ICU doctors and nurses working in the coronary care unit, cardio thoracic, trauma and general ICUs;
 - ICU doctors and nurses familiar with ICU visiting policies and practices;
 - ICU doctors and nurses currently working in the ICUs of the tertiary public sector hospital and who had experience in the daily activities performed in the ICUs;
 - Written consent had to be obtained (Appendix E).
-
- **Sample size**

The sample in this phase of the study consisted of six intensive care clinicians (doctors and nurses) working in the hospital's coronary care, cardiothoracic (heart surgery), trauma, neuro-surgery and multidisciplinary (medical and general surgery) ICUs. According to Lynn (1986:383) there is no consensus on how many panel members should be included in this phase of the study (Lynn, 1986:383). The number of panel members selected depends on the number of accessible and willing persons that can be identified and not on the population estimation principle. The sample used represented all categories of clinicians working in an ICU setting.

The sample (n=6) consisted of:

- One senior intensive care unit consultant;
- One junior intensive care consultant;
- One chief professional intensive care nurse (ICU trained);
- One senior professional intensive care (ICU trained);
- One junior professional nurse (not ICU trained); and
- One senior enrolled nurse working in the intensive care unit.

- **Data collection tool for Phase one: Step one**

Specific instructions were given to each panel member, on how to determine the content validity of each question in the questionnaire. (Appendix C). The same members were also

invited to determine the content validity of the entire questionnaire and to add any additional questions they thought needed to be included in the questionnaire from a South African perspective (Lynn, 1986:384). Refer to Appendix D. for the evaluation tool used by the ICU purposive panel members.

- **Data collection method for Phase one: Step one**

The CVI (index of content validity) which is according to Lynn,(1986:384) the most widely used quantification of content validity was used as the data collection method in this phase. The CVI uses an ordinal rating score to rate the relevance or importance of the questions on the questionnaire. The six panel members used a 4-point ordinal rating scale to assess each question on the questionnaire. A four point rating scale is suggested by Lynn. (1986: 384) as it does not include the ambivalent middle rating that is common in the odd number rating scores (Lynn, 1986: 384).

3.4.1.2 Step 2

Phase one (Step 2) involved the restructuring of the questionnaire according to the results from the validation of the instrument. The researcher and panel members took part in this phase of the study.

- **Data analysis for Phase one: Step 2**

A scoring sheet was developed where each question evaluated by each panel member was plotted according to the CVI Likert scale (Appendix D). Each question in the questionnaire had to be scored by at least five of the panel members as having a CVI rating of either a (3) = relevant but needs minor alterations or (4) = very relevant and succinct on the CVI rating scale. According to Lynn's model (1986:384) the proportion of experts whose endorsement is required to establish content validity is five of the six. The questions that did receive a (3) or (4) rating by five of the six panel members were then content valid and remained part of the study. The questions that did not receive a three or four rating and had been evaluated as a (1) = not relevant or (2) = unable to assess relevance without item revised, were either rephrased

or rewritten so all participants from different educational backgrounds would be able to understand the questions. If the majority of the panel members agreed that the question was not for re-evaluation or rephrasing the question was deleted from the questionnaire Please refer to Appendix B for the restructured BAVIQ questionnaire used for the South African setting.

3.4.2 Phase two

3.4.2.1 Step 3

Phase two (Step 3) was the data collecting stage where the restructured questionnaire was handed out to all the ICU clinicians in the comparative part of this study for completion

- **Research design**

Non-probability purposive sampling was also used for phase two step 3. Non-probability sampling is referred to as judgmental or selective sampling (Burns & Groves, 2005:353). This sampling method was used in order to select information rich participants with experience in ICU and who had knowledge of the challenges associated with ICU visiting policies. As no data exists in South Africa that has included ICU clinicians (doctors and nurses) in assessing their beliefs and attitudes towards open visiting, purposive sampling is considered to be the best way to gain insight into a new area of study or to obtain in-depth knowledge about a complex subject (Burns & Groves, 2005:352). An effort was made to obtain an equal number of participants in the two groups of ICU doctors and nurses to be compared as well as between the ICU experienced and trained nurses, as equal groups would increase the power of the study as the effect size is maximised (Burns & Groves, 2003:253). In consultation with a biostatistician it was decided that a sample size of one hundred and thirty ICU clinicians was needed. One hundred and fifty four participants agreed to participate, seventy one ICU doctors and eighty one ICU nurses.

The research did not use proportional stratified sampling but purposive sampling because this sampling method according to (Burns & Groves, 2005:353) is the best way to gain insight into a new area of study and to obtain in depth knowledge from participants. The researcher did include an inclusion and exclusion criteria for this study specifically to obtain participants who were information rich clinician (doctors and nurses) with experience in the ICU setting. Everyone was given an equal chance to participate in this study, as long as they fitted into the inclusion criteria. Purposive sampling allowed the researcher to select participants with different levels of clinical experience in order to analyze if there is a difference between advanced training and experience in the field of ICU. The research chose purposive sampling in order to collect adequate, reliable data so that the objectives of this study could be achieved.

- **Research method**

A self-administered questionnaire was used in phase two step 1. All the ICU clinicians that were available in the ICU on the day of data collection and fulfilled the inclusion criteria were invited to participate. (Appendix F).

- **Population**

The population in this phase of the study was N= 190 Included all the intensive care clinicians (doctors and nurses) working in the coronary care, cardiothoracic, trauma, neuro- surgery and multidisciplinary ICUs, of the quaternary public sector hospital in Johannesburg. The diversity of the participants working in the ICU units of this hospital was the reason why this population was chosen. The six purposive panel members were not invited to participate in phase two step 3 of this study. Specific inclusion criteria were applied the main one being that participants had to have at least four weeks ICU experience in order to participate.

The inclusion criteria for the sample in phase two step 3 were:

- ICU doctors and nurses working in the coronary care unit, cardio thoracic, trauma and multidisciplinary ICUs of the hospital;

- ICU doctors and nurses familiar with ICU visiting policies and practices working in this hospital;
- ICU doctors and nurses currently working in these ICUs and who had experience in the daily activities performed in the ICUs; and
- Written consent had to be obtained (Appendix E).

The exclusion criteria for the sample in this phase two step 3 were:

- ICU clinicians (doctors and nurses) currently working in the various ICUs with less than 4 weeks ICU experience.
- ICU clinicians not defined as a doctor or nurse. This group was excluded because the accessible population of the different categories would not be in proportion to the comparative groups being studied.

- **Sample for Phase two: Step 3**

The sample from the ICU units consisted of ICU clinicians (doctors and nurses). As categorised in table: 3.1.

ICU CLINICIAN SUBGROUPS	SAMPLE SIZE
ICU Consultants	n = 37
ICU Registrars	n = 31
ICU Medical officers	n = 3
ICU Chief Professional Nurses	n = 20
ICU Senior Professional Nurses	n = 11
ICU Professional Nurses	n = 23
ICU Enrolled Nurses	n = 15
ICU Nursing Assistants	n = 12
TOTAL	n = 154
Total population size of ICU clinicians	N= 196

Table: 3.1 ICU clinicians subgroup

Table 3.2 ICU nursing clinicians

ICU NURSING CLINICIANS	SAMPLE SIZE
ICU TRAINED NURSES	n= 40
ICU EXPERIENCED NURSES	n= 41
TOTAL	n=81
Total population of ICU experienced and ICU trained nurses.	N= 131

ICU trained and ICU experienced nurses were selected according to their responses on the questionnaire in the demographic section.

- **Data collection tool for Phase two: Step 3**

The data collection tool for phase two step 3 was the restructured questionnaire, structured specifically for use in the South African setting (Appendix B). A questionnaire is described by (Brink, 2003:154) as a self- report instrument where the participants write their responses to printed questions on a document. A structured questionnaire according to (Burns & Grove 2003:420) is considered appropriate for data collection as it has the following advantages:

- There is minimal bias from the interviewer;
- The possibility of the anonymity and privacy of the interviewees being assured encourages participants to respond to sensitive issues;
- A standardised questionnaire will allow for a large amount of data to be collected;
- It allows for flexibility concerning the type and order of items, and the topics covered by the researcher; and
- The collected data can easily be analysed and interpreted.

Besides these advantages there are disadvantages or problems associated with questionnaires as indicated by (Brink, 2003: 153).

These include the following:

- Participants need to be literate;
- The population may not be represented by those that participate;
- Should any questions be misunderstood there is no opportunity for clarification;
- Certain questions may not be answered by the participants;
- Mailing the questionnaires could not be cost effective for the researcher;
- The response rate from participants can be low;

An effort was made to eliminate most of the disadvantages mentioned above by delivering the questionnaires personally and collecting them. Participants were able to contact the researcher telephonically or in person on the day of data collection and a token of appreciation was offered to encourage participants to participate;

The restructured questionnaire consisted of five sections. Each section will be described and discussed in more detail.

Section 1: Demographics and personal data of participants

Section one consisted of eight questions in which the participants' demographic and professional data was elicited.

The importance of this section was that it described the participants':

- Gender,
- Age,
- Level of education,
- Type of hospital the participants were permanently employed in,
- Type of ICU the participants worked in,
- Whether the participants were in a managerial position,
- How many years or weeks of experience the participants had in an ICU setting.

These factors were used to analyze the differences in the ICU clinicians' subgroups and to determine if the years of experience of the participants had an effect on their responses.

Section 2: The visiting policy at your ICU

Section two consisted of seven questions relating to the visiting policy being utilized at the hospital in which the participant's were permanently employed. The questions in this section consisted of one open-ended question and six multiple choice questions. The importance of this section was to determine whether the participants knew and understood what visiting policies were and whether there was a preference between open and closed visiting policies among the participants.

Section 3: Is there a restrictive or open visiting policy in your ICU unit?

Section three consisted of only one question. The definitions of two types of visiting policies were described in this section. The participants had to choose whether the ICU they worked in had a restricted or open visiting policy according to the given definitions.

Section 4: Beliefs about the consequences of visitation on the patient, family and organization of care

Section four consisted of twenty one questions relating to the participants' beliefs on visitation with regards to the patient, family and ICU care. The participants had to read the question in section four and indicate their level of agreement for each statement on a five-point rating scale.

Section 5: Attitudes towards visiting

Section five consisted of fourteen questions, twelve relating to the participants' attitudes towards visiting and two were open ended statements. The participants had to read the questions in section five and indicate their level of agreement for each statement on a five- point scale. The two open ended statements needed numbers to be filled in to complete the sentence.

- **Data collection method for Phase two: Step 3**

Phase two Step 3 was the data collecting phase where the restructured questionnaire was handed out to the ICU clinicians for completion. Before recruitment and data collection could begin permission had to be obtained from the hospital's director, the ICU's service manager as well as the various ICUs' operational managers. Each ICU was approached at a convenient time arranged with their operational managers and staff were invited to participate in the study. All ICU clinicians working in the ICU were invited to participate in answering the restructured questionnaire. They were given an information letter clarifying the purpose and details of the study. They were also told what procedures they needed to follow in order to complete the questionnaire accurately. Once consent had been obtained from the willing participants (who met the inclusion criteria) a questionnaire was distributed to each one. A small token of appreciation was given to each participant for participating. The recruitment of the ICU nursing clinicians was undertaken first followed by the recruitment of ICU doctor clinicians. To maintain anonymity and confidentiality all signed consents were placed in an envelope and sealed in front of the operational manager. The only people that had access to the raw data were the researcher and supervisor. No questions were asked of the participants about their responses in the questionnaire once their questionnaires had been handed in. None of the questionnaires had any identification marks on them thus ensuring the participants' confidentiality and anonymity. The researcher could be contacted via telephone at all times during the data collection should any of the participants have had queries relating to the study. Participants were left to complete the questionnaires in their own time but the questionnaires were collected on the same day even if not completed. Questionnaires were assessed only once the estimated sample size of one hundred and thirty or more had been reached. As close to equal numbers of completed questionnaires from the comparative groups in this study had also to be obtained

3.5 VALIDITY AND RELIABILITY

3.5.1 Validity

According to (Burns & Grove, 2003: 45) validity is the extent to which a questionnaire measures what it is supposed to measure, and should not only measure a specific construct, but should also measure the construct consistently and accurately (Burns and Grove, 2003:45). Content validity has also been described as how well a questionnaire represents various components of the variables measured (Brink, 2003:168).

All questionnaires according to (Lynn, 1986: 382) have to have their content validated. Lynn (1986: 382) states that the content validity of each question is determined by the proportion of the purposive panel members who rated that question as content valid. A question is content valid if it scores a three or four according to the CVI Likert scale (Lynn, 1986: 382). There appears to be two limitations to the CVI procedure for assessment of content validity (Lynn, 1986: 384). The first limitation is the possibility of chance and the second is the dependence of the CVI on the number of rating categories being used (Lynn, 1986:384). The first limitation is addressed by (Lynn, 1986:384) by the provision of a table that depicts the minimal number of panel members that must agree on each question being content valid, to the ratio of purposive panel members participating in this research. The second limitation is addressed by using a rating scale (content validity index scale) that consists of four options.

The validity of the data collection process was ensured in this study by the following features:

- A purposive panel of six members with various years of experience and expertise validated the content of each question in the questionnaire and the entire questionnaire as a whole.
- The purposive panel members' responses were used to determine the ease and clarity of each question.
- The recommendations made from the six purposive members were used to formulate the restructured questionnaire needed for use in the South African setting.

3.5.2 Reliability

De Vos (2002:166-168) refers to the reliability of a data collection questionnaire to the accuracy of precision of a questionnaire. According to (Burns & Grove, 2003:291) when using a questionnaire that addresses different aspects or topics associated with a research subject, tests of internal consistency may not realise an acceptable coefficient. The internal reliability of the restructured questionnaire was assessed using the Chronbach's alpha coefficient formula used in descriptive statistics.

The Chronbach's alpha coefficient was used in this study to determine the reliability of the questionnaires even though individual questions covered different aspects of each topic in this restructured questionnaire. The Chronbach's alpha coefficient for the beliefs section was above 70% ranging from 74.6% to 78.3% with a mean of 77.2%. The internal consistency for the beliefs section of the questionnaire was thus acceptable. The Chronbach's alpha coefficient score for the attitudes section was below 70% ranging from 60.9% to 64.63%. The internal consistency in the attitudes section of the restructured questionnaire was therefore questionable. According to the literature Yu (2001:5) states that a low Chronbach's alpha coefficient score could be due to the participants guessing their responses as the questions could be too hard to give a response or the questions required a skill different from the rest of the questions and so the participants did not understand how to answer the questions. According to (Higgins & Straub 2006:27), estimates of an acceptable alpha coefficient are dependent not only on the sample on which it was tested but also on the questionnaire's maturity. This restructured questionnaire was being used for the first time in South Africa which is another reason why the attitude section of the restructured questionnaire resulted in a questionable internal consistency.

The reliability of the data collection process was maintained by the following features:

- A standardized data collection questionnaire was utilized to collect the data;
- Consistency of data collection between ICU clinicians and ICU units in the hospital was ensured;
- The researcher was available during the data collection process in each ICU clarifying unclear and ambiguous questions if approached by a participant; and
- The data collection time was predetermined. A three month data collection period was decided upon which commenced on 20 May 2009 and was completed on 3 July 2009.

3.6 ETHICAL CONSIDERATIONS

Nursing research requires not only expertise and diligence but also honesty and integrity (Burns & Grove, 2001:176). Ethical research is essential to generate sound knowledge for practice, while at the same time protecting the rights of human subjects. Ethical review and clearance is necessary to ensure a balance between the risks and benefits of a study and prevent research misconduct.

The following steps were taken to address any ethical considerations in the proposed study:

- DENOSA's ethical standards of research (1998:2.3.1-2.3.4) were adhered to in order to protect the rights of the participants. According to (Hegner, Acello & Caldwell, 2004: 36) ethical standards are defined "*as a form of philosophic inquiry used to investigate morality. It is based on scientific ethical principles that are used to justify actions and assist in the resolution of moral dilemmas.*"
- This nursing research was conducted not only with the expertise needed but also with honesty and integrity. According to Burns and Grove, (2002:219) "*honesty and integrity is needed so that sound knowledge will be generated for the nursing practice as a whole*".
- The research proposal and questionnaire were submitted to the Postgraduate committee (Faculty of Health Sciences) of the University of the Witwatersrand for permission to undertake the research. Permission was obtained.
- The research proposal and questionnaire were submitted to the Committee for Medical Research on Human Subjects of the University of the Witwatersrand to ensure compliance with ethical standards. The committee issued a clearance certificate. Certificate number:M080919 (Appendix G)
- Permission to conduct the research was obtained from appropriate Hospital Management personnel of the quaternary public sector hospital in Johannesburg and the Department of Health, Gauteng (Appendix I and Appendix J).
- Verbal consent was obtained from each purposive panel member where they indicated their willingness to participate in this study before written consent was obtained (Appendix D).
- Consent forms and questionnaires were separated by the researcher to ensure confidentiality and anonymity of the participants.
- Confidentiality was guaranteed to the participants as the researcher and the supervisor were the only persons with access to this study's raw data.
- Participants were allowed to withdraw from the study at any time without penalty.

- Participants were protected from any discomfort or harm that could occur while participating in this study as they were guaranteed that no negative relationships would develop between the researcher and them if they did not want to participate in the study.

3.7 CONCLUSION

In this chapter the research methodology of the study has been described. The design, the study setting, eligibility criteria, population and sample were described, data collection and analysis were discussed, and methods to ensure validity and reliability described and related to this study and ethical considerations were explained. The next chapter will deal with the data analysis and discussion of the results.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.1 INTRODUCTION

In this chapter the results as well as the approach used to analyse the results will be described. The results obtained from this study will be described and analysed using descriptive and inferential statistics. The research findings are also discussed.

4.2 APPROACH TO DATA ANALYSIS

Brink (2003:60) refers to data analysis as “*the examination of data for completeness and accuracy, summarising and analysis data and discarding incomplete questionnaires*”. The assistance of a biostatistician was requested with the analysing of the study data. The raw data obtained from phase two was entered onto a Microsoft excel spreadsheet and analysed within the computer statistical package Strata Release 10 statistical software. Fisher’s exact test and the Student’s paired t-test for independent groups were also used by the statistician to analyze the raw data.

At the beginning of the data analysis descriptive statistics were used to describe the characteristics of the two groups participating in the study (ICU doctors and nurses). Inferential statistics were used to describe the differences and similarities of the ICU clinicians’ beliefs and attitudes towards visiting, visiting policies and visiting practices. Inferential statistics were used to describe ICU experienced nurses’ and ICU trained nurses’ beliefs and attitudes towards visiting, visiting policies and visiting practices. The statistical significance of each question was evaluated and recorded according to the p-value. The p-value for this study had to be less than 0.05 to be significant. Questions 24 and 26 in the attitudes to visiting were analysed using the t-test. The standard deviation and the mean were analysed with a confidence interval of 95%. Refer to figure 4.1 for an approach to the data analysis.

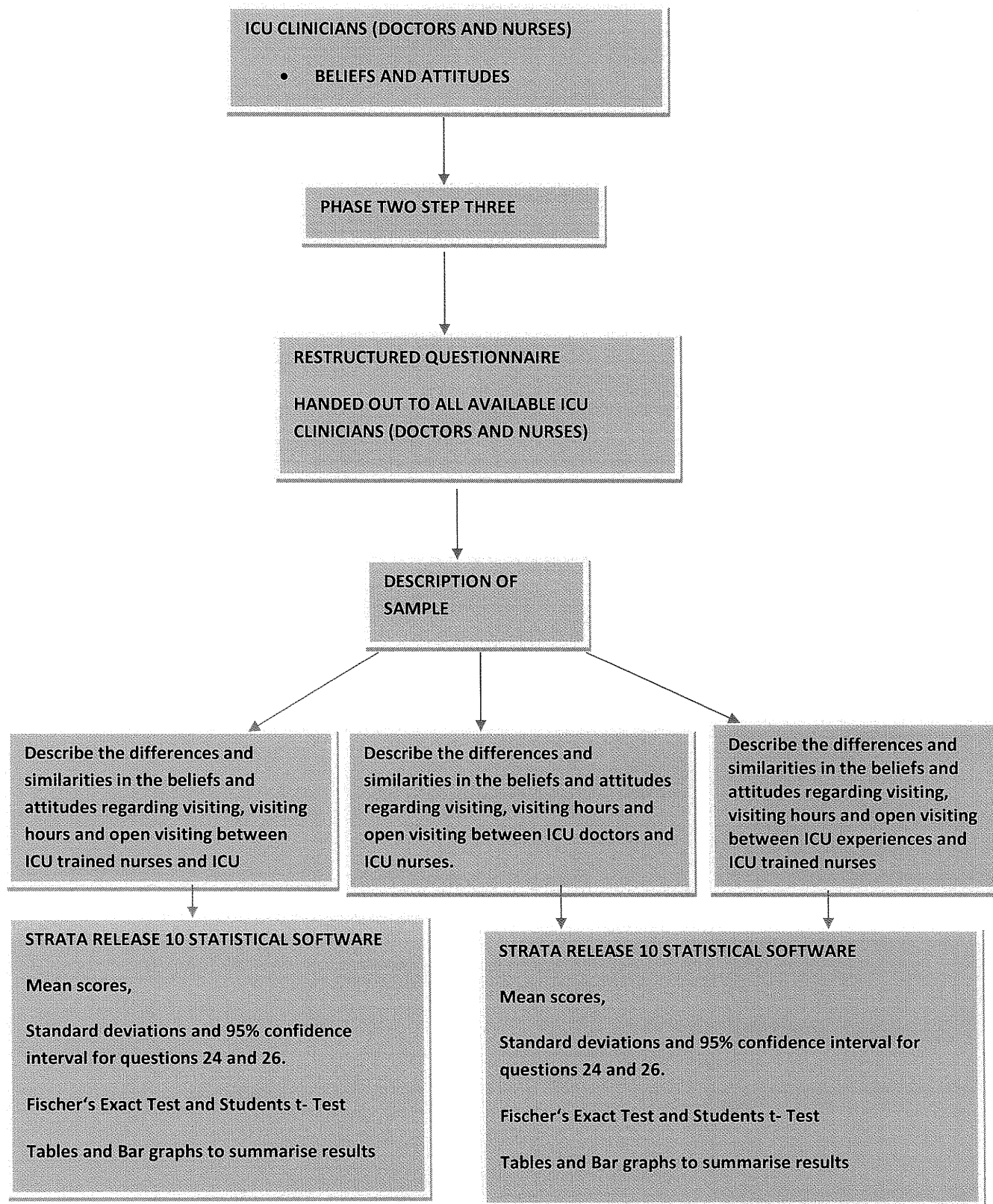


Figure 4.1 Approach to data analysis

4.3 RESULTS PHASE ONE STEP 1

The results of phase one step 1 consist of the validation done by the ICU purposive panel members on the original BAVIQ questionnaire. Certain English words were changed or rephrased in specific questions before the panel members validated the BAVIQ questionnaire. The words originally used were not common English words used by most South Africans, especially where English is not their first language. The ICU panel members validated the rephrased questions according to Lynn's model using the Likert scale. The wording in these questions had to be agreed upon by at least five out of the six panel members. They had to rate each question at least a 3 or a 4 according to the Likert scoring scale. Refer to table 4.2 for the rephrased questions for use in the South African setting adapted from the BAVIQ questionnaire.

TABLE 4.1 Rephrased questions for use in the South African setting adapted from the BAVIQ questionnaire

Original Question (BAVIQ)	Restructured Question
Question 8 I believe that an open visiting policy infringes upon patient's privacy.	I believe that an open visiting policy violates the patient's privacy and confidentiality.
Question 15 I believe that an open visiting policy hampers adequate planning of the nursing care process.	I believe that an open visiting policy interferes with the adequate planning of the nursing care process
Question 21 I believe that an open visiting policy will compromise the safety of the staff and patients	I believe that an open visiting policy will decrease the safety of the staff and patients
Question 24 I think that the number of visitors in a time range of 24h should not be limited.	I think that the number of visitors in a day (24hrs) should NOT be limited.
Question 25 I think that in a time range of 24 h the number of visitors should be limited to ... persons.	I think that in a day (24hours) the number of visitors should be limited to ... persons.
Question 28 I think that the number of people who are visiting the patient at the same time should not be limited	I think that the number of people who are visiting the patient at the SAME TIME should NOT be limited
Question 33 I think that the visiting policy must be adapted to the cultural/ethnicity of the patient.	I think that the visiting policy must be adapted to the culture of the individual patient

4.4 Results of phase one step 2

4.4.1 Results of CVI scoring scale used by purposive panel members

Question 16 in the original BAVIQ questionnaire was removed from the questionnaire even after the panel validated the question, because only 2 members agreed to keep the question for inclusion in the restructured questionnaire whilst the other 4 members disagreed.

The question removed is highlighted in blue in the Likert scoring scale (CVI) of the questionnaire validation. Questions added to the original BAVIQ questionnaire specifically for the South African setting is highlighted in red, whilst the rephrased questions from the original BAVIQ questionnaire are highlighted in green. The numbers within the Likert scoring scale are the numbers of the ICU members that rated the various questions that particular score. Five out of the six panel members had to rate each question either a 3 or a 4 on the Likert scoring scale for the question to remain in the questionnaire.

Table 4.2 Evaluation tool used by researcher

LIKERT SCALE SCORE	Not relevant (1)	Unable to assess relevance without item revision (2)	Relevant but needs minor alterations (3)	Very relevant and succinct (4)
Section 1: BELIEFS				
Q: 1 I believe that visitation has a beneficial effect on the patient.				6
Q: 2 I believe that visitation hinders the patient's rest.			2	4
Q3 I believe that visitation causes physiological stress for the patient			2	3
Q4I believe that visitation creates adverse haemodynamic responses in patients.			2	4
Q5 I believe that an open visiting policy is important for the recovery of the patient.			2	3
Q6 I believe that visitation causes psychological stress for the patient.			1	4
Q7 I believe that visitors can help the patient interpret information.			2	4
Q8 I believe that an open visiting policy infringes upon patient's privacy.		1	2	3
Q9 I believe that an open visiting policy offers more comfort to the patient			4	3

Table 4.2 (cont.) Evaluation tool used by researcher

LIKERT SCALE SCORE	Not relevant (1)	Unable to assess relevance without item revision (2)	Relevant but needs minor alterations (3)	Very relevant and succinct (4)
Q10 I believe that an open visiting policy decreases family's anxiety.			2	3
Q11 I believe that an open visiting policy exhausts family, because they feel forced to be with the patient.	1		3	2
Q12 I believe that an open visiting policy interferes with direct nursing/medical care.	1		3	2
Q13 I believe that an open visiting policy makes nurses/doctors nervous, because they are afraid to err.	1		3	2
Q14 I believe that an open visiting policy makes nurses/doctors feel controlled.		1	3	2
Q15 I believe that an open visiting policy hampers adequate planning of the nursing/medical care process.		1	1	4
Q16 I believe that an open visiting policy interferes with humour between nurses/doctors.	4	2		

Table 4.2 (cont.) Evaluation tool used by researcher

LIKERT SCALE SCORE	Not relevant (1)	Unable to assess relevance without item revision (2)	Relevant but needs minor alterations (3)	Very relevant and succinct (4)
Q17 I believe that an open visiting policy makes nurses/doctors to spend more time in providing information to the family			2	4
Q18 I believe that an open visiting policy increases the risk of errors.			3	3
Q19 I believe that visitation is a helpful support for the care givers.		1	1	4
Q20 I believe that an open visiting policy contributes to the improvement of patient-centered care.		1	2	3
Q21 I believe that an open visiting policy will decrease the safety of the staff and patients.		1	2	3
Q22 I believe that an open visiting policy will allow for all culture factors to be taken into consideration.	1		2	3

Table 4.2 (cont.) Evaluation tool used by researcher

LIKERT SCALE SCORE	Not relevant. (1)	Unable to assess relevance without item revision. (2)	Relevant but needs minor alterations. (3)	Very relevant and succinct. (4)
Section 2: ATTITUDES				
Q23 I think that everyone is allowed to visit, if it is approved by the patient		1	2	3
Q24 I think that the number of visitors in a time range of 24h should not be limited.	1		2	3
Q25 I think that in a time range of 24 h the number of visitors should be limited to ... persons.		1	4	1
Q26 I think that the length of a visit should not be limited.		1	1	4
Q27 I think that only ... persons can visit the patient at the same time.		1	1	4
Q28 I think that the number of people who are visiting the patient at the same time should not be limited.		1	1	4
Q29 I think that an open visiting policy should be carried out in our unit.		1		5

Table 4.2 (cont.) Evaluation tool used by researcher

LIKERT SCALE SCORE	Not relevant. (1)	Unable to assess relevance without item revision. (2)	Relevant but needs minor alterations.(3)	Very relevant and succinct. (4)
Q30 I think that strict visiting hours must be adapted when the family has practical problems adhering to the policy.		1	1	4
Q31 I think that strict visiting hours must be adapted when the patient has emotional needs.		1	1	4
Q33 I think that the visiting policy must be adapted to the culture of the individual patient			3	3
34 I think that a strict starting hour is important, but the length of a visit can be flexible.			3	3
Q35 I think that a visiting policy must be flexible during the first 24 hours of hospitalization.		1	2	3
Q36 I think that the visiting policy must be adapted when the patient is dying.			1	5

4.5 RESULTS AND DISCUSSION OF PHASE TWO STEP 3

4.5.1 Demographic and personal data (Section: 1)

Descriptive statistics were used to analyse the demographic and personal data of the participants. The results have been described at the beginning of each question in section one and are presented in pie graphs. The question numbers refer to the questions in Section 1 of the questionnaire in Appendix B

Question 1: Participants' gender

Of the 154 participants 106 (68.83%) were females and 48 (31.17%) were males. Refer to figure 4.2.

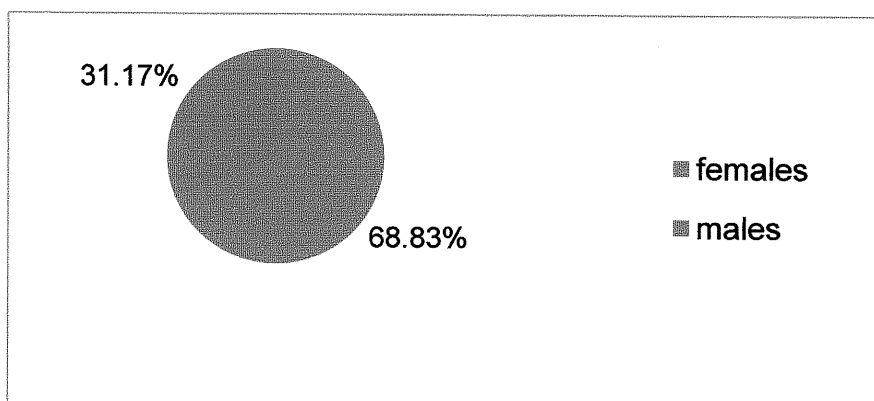


Figure 4.2: Gender of participants in the study.

The number of female (68.83%) and male (31.17%) participants were very similar to the gender distribution present in an Italian study which had a 72.5% female component and a 52.6% the male component (Biancofiore,et al., 2010:94). Interestingly in the literature it appears that in Spain the nursing profession is made up of only females. In Norway their participants were similar to those of this study and that of Italy with the both professions including females and males as well as having the majority of the participants female and the minority male (Takman, 2005:624).

Question 2: Participants' age

Of the 154 participants 4 did not disclose their age. Of the remaining 150 participants, 82 (54.7%) were between the ages of 23 and 36, 49(32.6%) between 37 and 48, 19 (12.7%) between the ages of 49 and 67. Refer to figure 4.3.

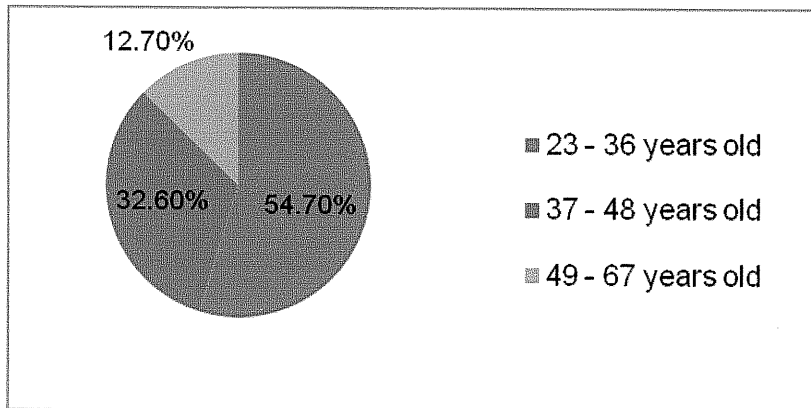


Figure 4.3 Ages of participants in the study.

More than half of the participants (54.7%) were between the ages of 23- 36 years old and only 32.6% between the ages of 37-48 years old. The minority (12.7%) of the participants with most experience and leadership were between the ages of 49- 67 years old.

Question 3: Percentages of ICU nurses and ICU doctors that participated in the study

Of the 154 participants 81(52.62%) were ICU nurses and 73(47.38%) were ICU doctors. Refer to figure 4.4.

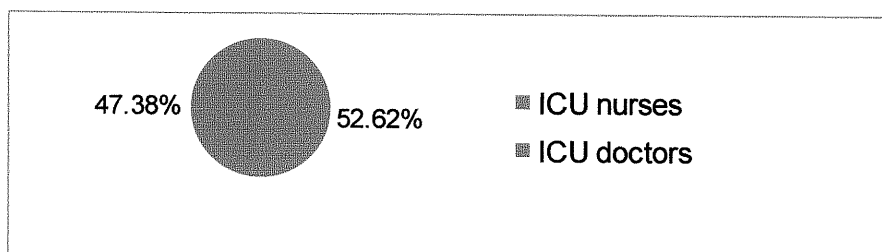


Figure 4.4 Percentages of ICU clinicians (doctors and nurses) that participated in the study

The number of ICU nurses (52.62%) and ICU doctors (47.38%) that participated was as close as equal as being could be obtained in order to increase the power of this study.

Question 4: Levels of education of the participants in this study

The ICU nurses consisted of 20 (12.99%) chief professional nurses, 11 (7.14%) senior professional nurses, 23 (14.94%) professional nurses, 15 (9.74%) enrolled nurses and 12 (20.13%) were nursing assistants. The doctors consisted of 3 (3.25%) medical officers, 31 (20.13%) registrars and 37 (24.00%) consultants. Refer to figure 4.5.

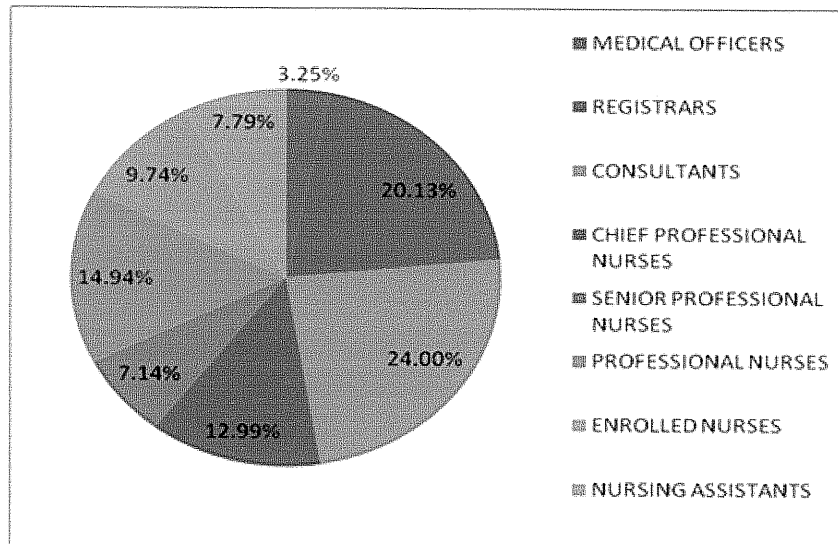


Figure 4.5 Levels of education of participants in this study.

According to a national audit conducted in South Africa in 2007, Scribante and Bhagwanjee documented that only 25.6% of nurses working in ICU are ICU trained and the majority (49.2%) were registered nurses, while 21.4% were semi-professional nurses. Most of the quaternary hospitals in South Africa are also known as level one hospitals and have a dedicated medical director with 24 hour dedicated medical staff coverage (Mathivha, 2002:22).

Question 5: Types of hospitals the participants permanently worked in

Of the 154 participants only one participant did not respond to the question of what type of hospital he/she permanently worked in. All the participants were at work on the day of data collection study but were not all permanently employed in that particular hospital. Of the 153 participants 101 (66.01%) worked in a university affiliated government hospital, 36 (23.53%) worked in a government hospital (not affiliated to any particular university) and 16 (10.46%) worked in a private hospital. Refer to figure 4.6.

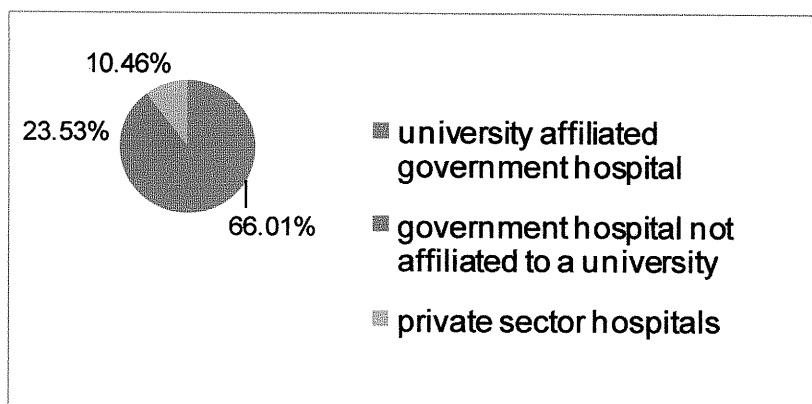


Figure 4.6 Types of hospitals participants permanently worked in.

Question 6: Types of ICUs participants worked in

Of the 154 participants, only one participant did not respond to the type of ICU he/she worked in. Of the 153 responding participants 86 (55.84%) worked in a multi disciplinary ICU, 27 (17.53%) worked in a cardio-thoracic unit, 14 (9.09%) worked in a coronary care unit, 12 (7.79%) worked in a neuro-surgical unit, 12 (7.79%) worked in a trauma unit and 3 (1.95%) worked in a general surgical unit. Refer to figure 4.7.

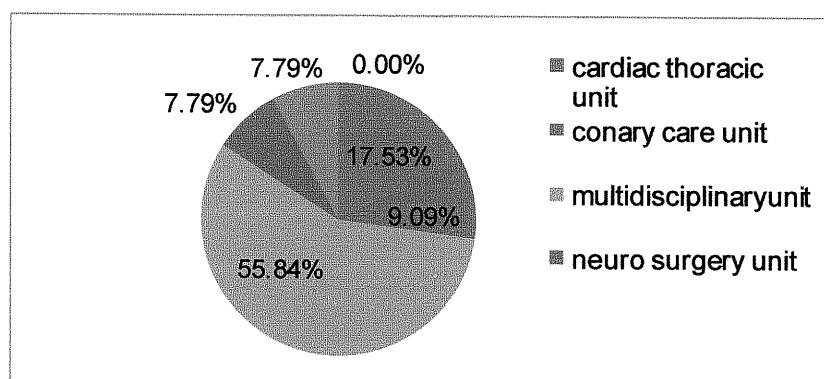


Figure 4.7 Types of ICUs the participants worked in.

The different ICU units that were invited to participate in this study were the cardiothoracic unit, cardiac care unit, neuro-surgery unit, trauma unit and the (general) multidisciplinary unit. In a national survey carried out in Italy where visiting policies were studied their demographics were very similar to the demographics in this study as they had close to the same types of ICU classifications University hospital or scientific institutions, general hospitals and private hospitals. The types of ICUs that were included in Italy were a mixed medical-surgical, surgical, paediatric, neurosurgical, cardiac surgery and organ transplant ICU units. (Giannini, Miccinesi & Leoncini, 2008: 1257).

Question 7: Executive and non executive positions

Of the 154 participants, only one participant did not respond to the question which asked if the participant held an executive position and what the executive position was. An executive position refers to a participant who holds a senior management position. Of the 153 responding participants 135 (88.24%) did not hold executive positions and 18 (11.76%) did hold executive positions. Refer to figure 4.8.

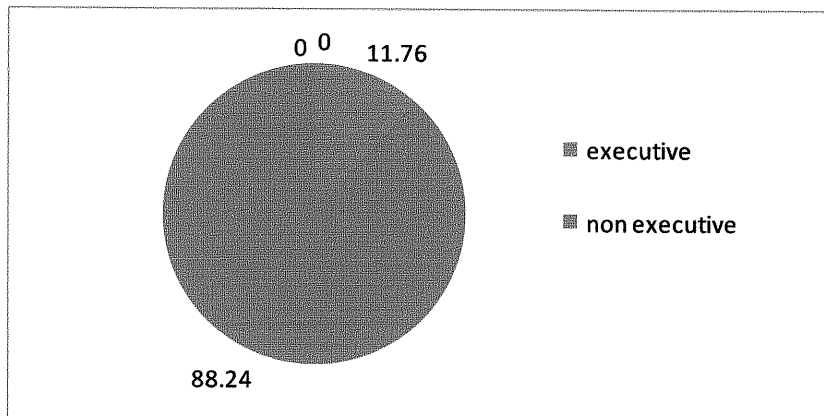
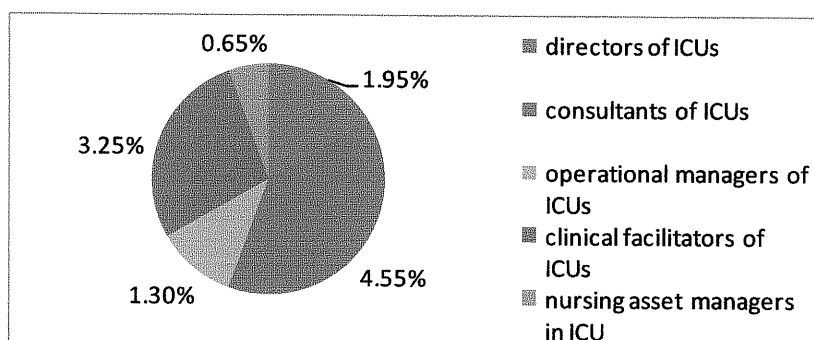


Figure: 4.8 Numbers of executives and non executives that participated in the study.

Question 8: Categories of ICU executives that participated in this study

Participants who held executive positions as directors of individual ICUs numbered 3 (1.95%) consultants of ICUs 7 (4.55), operational nursing managers of ICUs 5 (3.25%), nursing clinical facilitators 2 (1.30%) and 1 (0.65%) was an ICU nursing asset manager.(Refer to figure 4.9).



Figures 4.9: Categories of ICU executives that participated in this study.

Question 9: Years of experience of the participants that participated in this study

Of the 154 participants, 8 did not respond to this question. Of the 146 participants 94 (64.38%) had 0-5 years ICU experience, 24 (16.21%) had 5-10 years, 20 (13.93 %) had 10-15 years, 5 (3.43%) had 15-20 years and 3 (2.05%) had >20 years. Refer to figure 4.10.

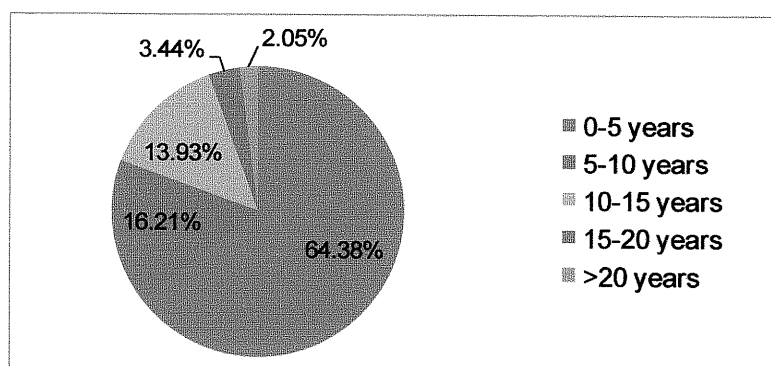


Figure 4.10 Number of years of ICU experience participants had in the study.

In a similar study done in Italy the average professional experience for their ICU nurses was 0.6-33 years and for their ICU doctors 0.8-37 years of ICU experience (Biancofiore,et al.,2010:94).

4.5.2 Visiting policies (Section: 2)

Descriptive statistics were used to analyse section 2 of the questionnaire involving the visiting policy in the various ICUs that participated in this study. The results have been described at the beginning of each question in section two and are presented in pie graphs. The question numbers refer to the questions in Section 2 of the questionnaire in Appendix B.

Question 1: Participants that worked permanently in government or private sector hospitals

Of the 154 participants 137 (89.54%) worked permanently in government hospitals and 16 (10.45%) worked permanently in private sector hospital. Refer to figure 4.11.

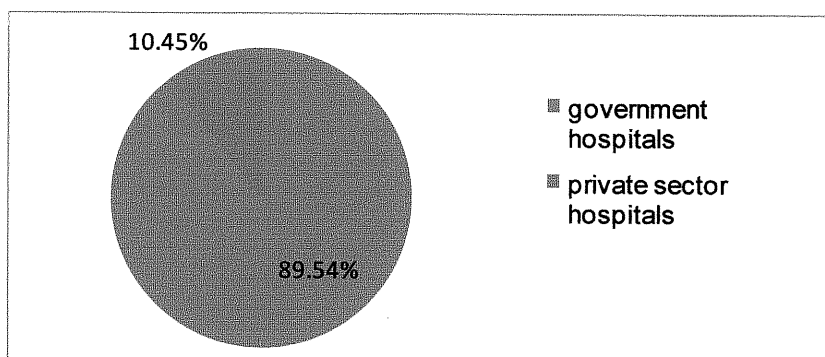


Figure 4.11 Permanent public sector participants compared with permanent private sector participants

There is a trend in South Africa that both doctors and nurses work overtime in another hospital over and above their normal shifts.

Question 2: Number of visiting slots (period of time to visit) in 24 hours

Of the 154 participants 93 (60.39%) claimed to have one visiting slot (period of time to visit) in 24 hours in the ICUs, 49 (31.82%) have two visiting slots in the ICUs, 5 (3.25%) have three visiting slots in the ICUs, 5 (3.25%) have four visiting slots in the ICUs and 2 (1.30%) have five visiting slots in the ICUs. Refer to figure 4.12.

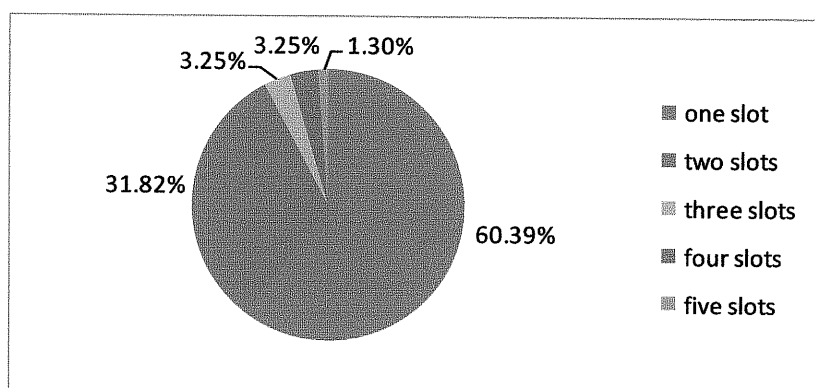


Figure 4.12 Limits on the number of visiting slots within 24 hours

As indicated different visiting policies had various numbers of visiting slots (visiting periods) allowing only certain numbers of people to visit at a time. Most of the participants in this study (60.39%) documented that only one visiting slot was allowed in their units. From a study conducted in Paris it appears that the majority (59%) of their ICUs have two visiting slots and the minority (3%) have no visiting slots (Quinio, et al., 2002:1390).

Question 3: Limit on the number of visitors at one time

Of the 154 participants 138 (89.61%) allowed two people to visit at a time, 9 (5.84%) allowed only one visitor at a time, 2 (1.30%) allowed three visitors at a time, 1 (0.65%) allowed four at a time and 4 (2.60%) claimed to have no restrictions on the number of visitors at one time. Refer to figure 4.13.

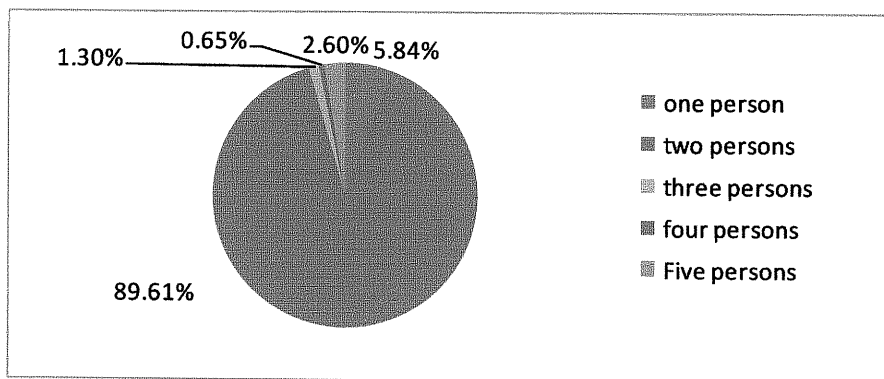


Figure 4.13 Limits on the number of visitors at one time

The findings in this study on the limit on the number of visitors at one time were very similar to the findings in Paris where 72% allowed two visitors at one time, while 5% had no limits on visitors (Quinio,et al.; 2002: 1390).

Question 4: Limits on who is allowed to visit in the ICU units

Of the 154 participants 83 (53.90%) state that there is no restrictions on who visits in their unit, 60 (38.96%) state that relatives and others approved by the patient/family only are allowed to visit and 11 (7.14%) state that direct relatives are the only persons allowed to visit in their unit. Refer to figure 4.14.

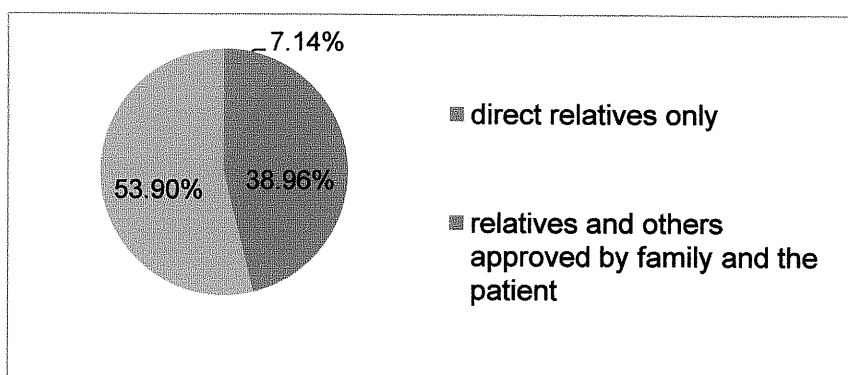


Figure 4.14 Limits on who visits

Compared to this study where the majority of the participants (53.90%) claimed that there is no restriction on who visits the patient, in Paris only the immediate family was allowed in (60.00%) of the ICUs (Quinio, et al., 2002:1390). In Belgium, close relative, family related by marriage and friends was allowed in 45.60% of their ICU's will only 19.30% allowed immediate relatives only (Vandijck, Labeau & Geerinckx, 2010:140).

Question 5: Limits on the maximum visiting time in various units

Of the 154 participants 110 (71.43%) claimed that their unit had a maximum visiting time of 1-2 hours, 17 (11.04%) claimed that their units had a maximum visiting time of 30-45 minutes, 11 (7.14%) claimed that their units had 10-20 minutes maximum visiting time, 10 (6.49%) claimed that their maximum visiting time varies from patient to patient, while 6 (3.90%) claimed that they had no time limits on the visiting time in their unit. Refer to figure 4.15.

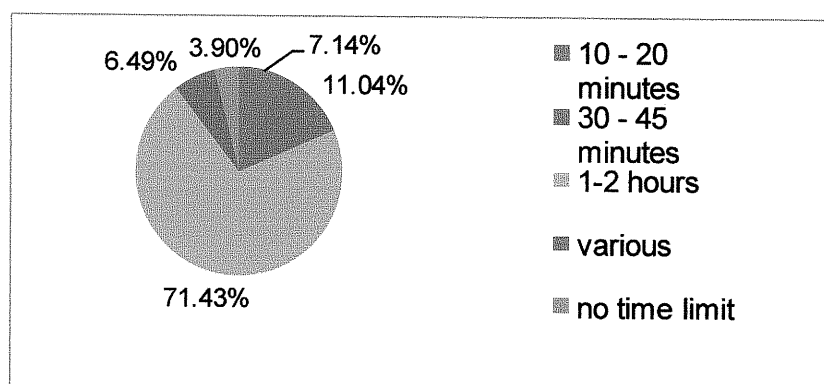


Figure 4.15 Limit on the maximum visiting time in various units

In Belgium the total daily duration of visiting time appears to be only 30 minutes to a hour compared with this studies finding of 1-2 hours being the maximum visiting time (Vandijck, et al., 2010:138). In an observational, prospective, single centred cohort study in Paris visiting took place between 2pm and 8pm prominently with visitors staying for a maximum of 1-2 hours, although there was no time limit to their visiting times (Garrouste-Orgeas, et al ., 2008:32).

Question 6: Exceptions in the visiting policy

Of the 154 participants 120 (77.92%) agreed that an exception should be made when the patient is dying. There was 33 (22.08%) of the participants that disagreed that an exception should be made even if the patient is dying. Of the 154 participants 58 (37.67%) agreed that if the family has practical problem complying with the visiting policy an exception should be made, while 96 (62.23%) claimed that no exception can be made even if the family has a practical problems complying with the visiting policy. Of the 154 participants, 45 (29.22%) did make an exception if the patient has an emotional need while 109 (70.78%) did not make an exception to the visiting policy if the patient had an emotional need. Of the 154 participants, 43 (27.92%) agreed that they made an exception to the visiting policy if the health workers had practical needs, while 111 (72.08%) did not make any exception in the visiting policy even if the health careworkers had practical needs. Of the 154 participants 13 (8.45%) that other exceptions take into consideration in their visiting policy, while 141 (91.55%) do not make any other exceptions to their visiting policy. Refer to figure 4.16.

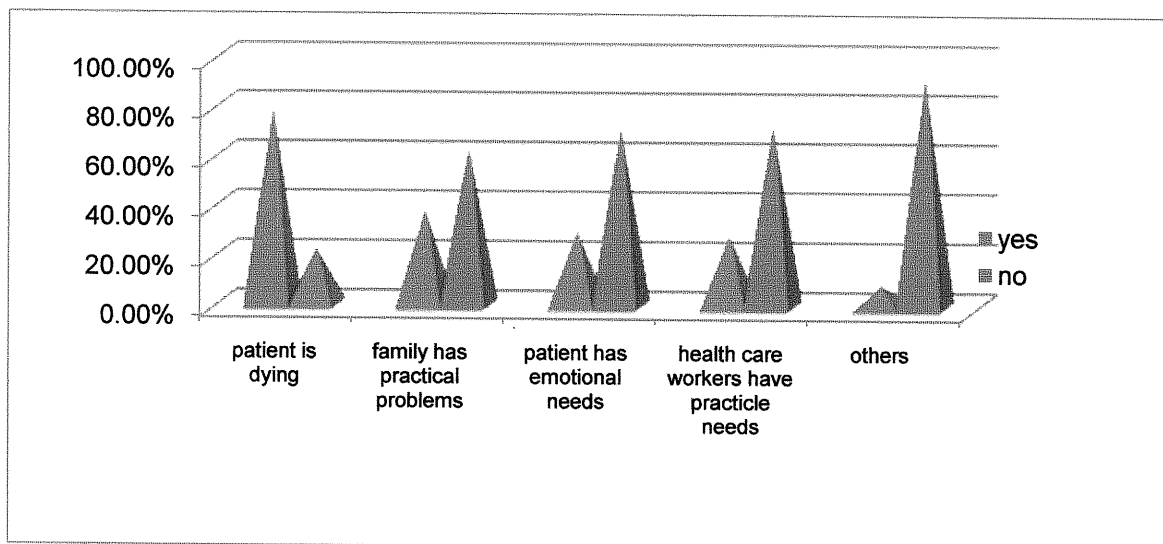


Figure 4.16 Exceptions in the visiting policy

Comparing the findings from this study with those of findings in Italy and Belgium, it was found that if the patient was dying all the above countries had made exceptions to their visiting policies (Biancofiore et al., 2010:97, Vandijck, et al., 2009:140, Marco, et al., 2006:140)

Question 7: Is there an official written visiting policy in your ICU unit?

Of the 154 participants 140 (91.5%) responded yes to having an official written policy while 13 (8.50%) responded no to having an official written visiting policy. Refer to figure 4.17.

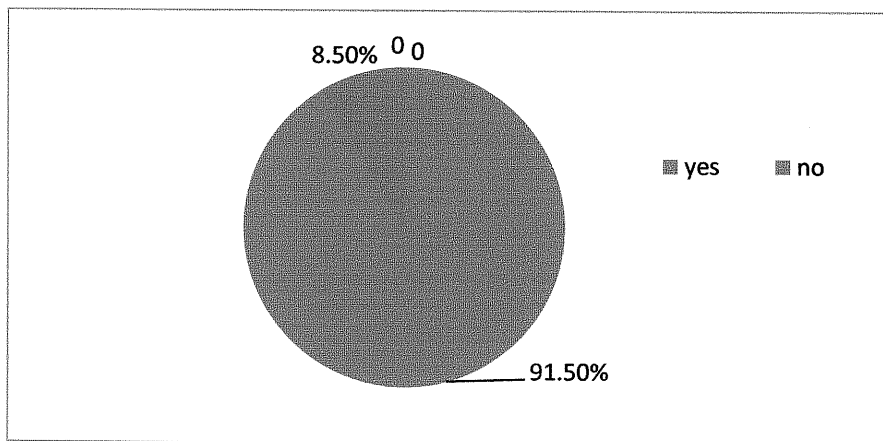


Figure 4.17 Is there an official written visiting policy in your ICU unit

There was no data in the literature (even from the original study done in Flanders) which stated if there was an official written visiting policy in their ICUs.

Question 8: Specific times during the day when no visitors are allowed

Of the 154 participants only 148 participants responded to this question 133 (89.87%) responded that there were times during the day when no visitors were allowed in their unit and 15 (10.14%) responded that there was no specific time during the day when no visitors were allowed. Refer to figure 4.18.

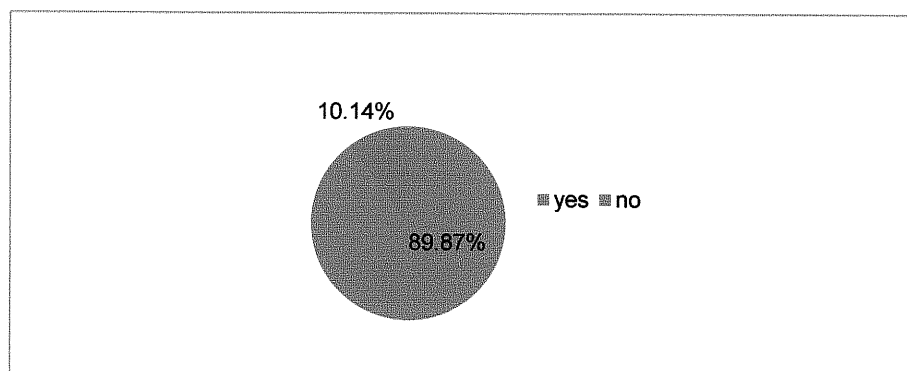


Figure 4.18 Specific times during the day when no visitors are allowed

In the hospital where this study was performed the majority of the ICU units did not allow visitors at specific times such as when there were doctor rounds, emergencies or nursing / medical procedures such as (the insertion of central lines, arterial lines and urinary catheters.) being performed. In a study in Spain one of the ICU nurses suggested that at night visitors should not be allowed except in extreme cases (Marco, et al., 2006:39). Berwick & Kotagal have also reported that some hospitals in Boston that are still undergoing a change towards an open visiting policy do stipulate that there are times when a patient's cubicle or the entire unit would be closed for procedures or emergencies (Berwick & Kotagal, 2004:737).

4.5.3 Restrictive or open visiting in your unit (Section: 3)

Question 1: Restrictive or open visiting policy in ICU units

Of the 154 participants, 150 (97.40%) described their intensive care units' visiting policy as being restrictive and 4 (2.60%) described their intensive care units as being open. Refer to figure 4.19.

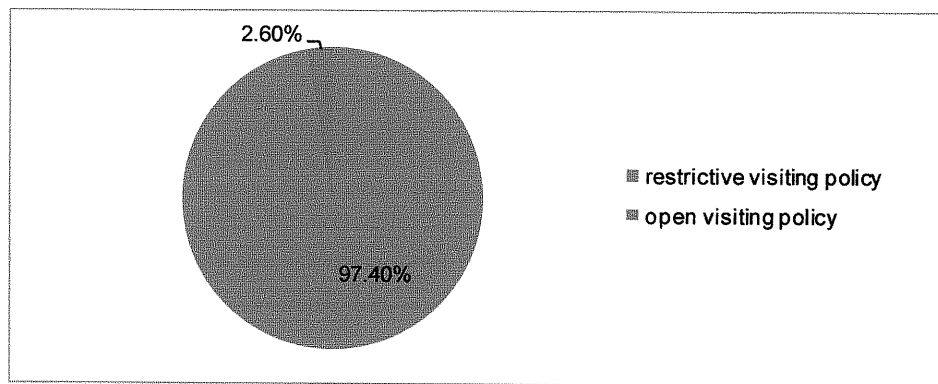


Figure 4.19 Restrictive or open visiting policy in ICU units

In comparing the findings from this study to the one done in North-East Italy there appears to be a closer percentage difference between open and restrictive visiting policies than in this study’s large percentage difference. In North- East Italy 43% of their ICUs had open visiting policies and 57% had restrictive visiting policies (Anzoletti et al.; 2008:369).

4.5.4 Beliefs of ICU clinicians (doctors and nurses) section: 4

Inferential statistics were used to analyse the beliefs of the ICU clinicians (doctors and nurses) towards visitation of the patient, family and ICU care. The results are presented in tables illustrating the various responses made by the ICU clinicians. The individual as well as the total percentages and frequencies of each response from the ICU clinicians are represented in tables with the last column showing the statistically significant data, using Fischer’s Exact Test. The question numbers refer to the questions in Section 4 of the questionnaire in Appendix B.

Question 1: I believe that visitation has a beneficial effect on the patient.

Of the participants that responded 91.36% (n= 74) of nurses and 95.89% (n=70) of doctors agreed that visitation has a beneficial effect on the patient. There is no significant difference between the beliefs of nurses and doctors with respect to the beneficial effect of visitation (p=0.128). Both doctors and nurses maintain that visitation has a beneficial effect on the patient. Refer to table 4.7.

Table 4.3: Visitation has a beneficial effect on the patient

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	74 (91.37%)	70 (95.89%)	144 (93.51%)	0.128
Neutral	0 (0.00%)	1 (1.37%)	1 (0.65%)	
Disagree	7 (8.64%)	2 (2.74%)	9 (5.84%)	

From the results of this study both groups of ICU clinicians (93.51%) agreed that visitation has a beneficial effect on the patient. The same result was evident in a similar study done in Italy where both the ICU doctors (80.5%) and ICU nurses (67.1%) there also agreed with the above statement (Bianfiore, et al., 2010:95). There is evidence in the literature that the beneficial effects on the patient from visitation are that they receive support from their family members and comfort in knowing that their family can get an update on their progress and prognosis (Kleinpell, 2008:334). Communication between ICU clinicians and the patients' family increases and more time can be spent by the ICU clinicians in obtaining additional information from the family that can be helpful in managing the patient's care and the ICU clinicians can also teach the family what lifestyle changes need to take place when the patient returns home so as to improve he/her health (Kleinpell, 2008:334). There are also circumstances in which less visitation may be necessary and thus the role of the ICU clinicians is to monitor the patient and do what is best for that patient (Sims & Miracle, 2006:177).

Question 2: I believe that visitation hinders the patient's rest

Of the participants that responded 20.99% (n=17) of nurses and 19.18% (n=14) of doctors agreed that visitation hinders the patient's rest. There is no significant difference between the beliefs of nurses and doctors with respect to visitation hindering the patient's rest (p=0.730). Refer to table 4.4.

Table 4.4: Visitation hinders the patient's rest

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency n Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	17 (20.99%)	14 (19.18%)	31 (20.13%)	0.730
Neutral	18 (22.22%)	13 (17.81%)	31 (20.13%)	
Disagree	46 (56.76%)	46 (63.01%)	92 (59.74%)	

The majority of the ICU doctors (63.01%) and the majority of the ICU nurses (56.76%) disagreed that visitation hinders the patients rest. Many ICU clinicians have had the experience that often the patient is reassured and soothed by the presence of family besides their bed (Berwick, et al., 2004:736). There is also evidence in the literature that patient rest is actually promoted by a more liberal visiting policy (Sims & Miracle, 2006:177). According to (Sims & Miracle, 2006:177) patients feel that they are able to rest better at various times of the day instead of having to remain awake during specific visiting times.

Question 3: I believe that visitation causes physiological stress for the patient

Of the participants that responded 64.20% (n=52) of nurses and 71.33% (n=52) of doctors disagreed that visitation causes physiological stress for the patient. There is no significant difference between the beliefs of nurses and doctors with respects to visitation causing physiological stress in the patient (p=0.392). Refer to table 4.5.

Table: 4.5 Visitation causes physiological stress for the patient

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency n Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	6 (7.41%)	7 (9.59%)	13 (8.44%)	p= 0.392
Neutral	23 (28.40%)	14 (19.18%)	37 (24.03%)	
Disagree	52 (64.20%)	52 (71.23%)	104 (67.53%)	

The results in this study indicated that both the ICU clinicians (67.53%) disagreed that visitation causes physiological stress in the patient. There is evidence to show that the presence of family has not altered

the patients' parameters such as heart rate, blood pressure and intracranial pressure (Giannini, 2007:301). According to (Fumagalli et al., 2006:945) a random study produced evidence that patients who had unrestricted visiting hours experienced a decreased risk in cardiovascular complications, had lower mortality rates and a decreased stress hormone profile.

Question 4: I believe that visitation creates adverse haemodynamic responses in patients

Of the participants that responded 50.00% (n=40) of nurses and 73.97% (n=54) of doctors disagree that visitation creates adverse haemodynamic responses in patients. Although both nurses and doctors disagreed, there is a significant difference as more doctors disagreed than nurses ($p=0.001$). Refer to table 4.6.

Table 4.6 Visitation creates adverse haemodynamic responses in patients

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	25 (31.25%)	6 (8.22%)	31 (20.26%)	0.001
Neutral	15 (18.75%)	13 (17.81%)	28 (18.30%)	
Disagree	40 (50.00%)	54 (73.97%)	94 (61.44%)	

Significantly more ICU doctors (73.97%) disagreed than ICU nurses (50.00%) that visitation creates adverse haemodynamic responses in the patients. Interestingly the same result was obtained in a similar study in Tuscany Italy where significantly more ICU doctors (53.8%) disagreed than ICU nurses (39.1%) that visitation creates adverse haemodynamic responses in patients (Biancofiore, et al., 2010:94). In a study done in Florence Italy there was evidence that liberalised visitation might reduce cardiovascular complications particularly in patients with pulmonary oedema and patients in shock (Fumagalli et al., 2006:945).

Question 5: I believe that an open visiting policy is important for the recovery of the patient

Of the participants that responded 51.25% (n=41) of nurses and 21.93% (n=16) of doctors agreed that open visiting is important for the recovery of the patient. There is a significant difference as most ICU nurses agreed and most ICU doctors disagreed ($p=0.000$). Refer to table 4.7.

Table 4.7 An open visiting policy is important for the recovery of the patient

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	41 (51.25%)	16 (21.92%)	57 (37.25%)	0.000
Neutral	5 (6.25%)	15 (20.55%)	20 (13.07%)	
Disagree	34 (42.50%)	42 (57.53%)	76 (49.67%)	

Significantly more ICU nurses (51.25%) than ICU doctors (21.92%) agreed that an open visiting policy is important for the recovery of the patient. Interestingly the ICU doctors (52.3%) and ICU nurses (47.2%) in Italy both agreed that an open visiting policy was important for the recovery of the patient (Biancofiore, et al., 2010:94). The ICU clinicians agreed that visitation is important for the recovery of the patient because family members can provide emotional support and reassurance to the critically ill patient that sometimes they cannot supply (Sims & Miracle, 2006:178).

Question 6: I believe that visitation causes psychological stress for the patient

Of the participants that responded 74.36% (n=58) of nurses and 73.97% (n=54) of doctors disagreed that visitation causes psychological stress in the patient. There is no significant difference between the beliefs of nurses and doctors with respect to visitation causing psychological stress in the patient (p=1.000). Refer to table 4.8

Table 4.8 Visitation causes psychological stress for the patient

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	7 (8.97%)	6 (8.22%)	13 (8.61%)	1.000
Neutral	13 (16.67%)	13 (17.81%)	26 (17.22%)	
Disagree	58 (74.36%)	54 (73.97%)	112 (74.17%)	

In this study both set of ICU clinicians disagreed that visitation causes psychological stress in the patient. The same belief in Italy was documented when 53.8% of their ICU doctors and 39.1% of their ICU nurses also disagreed that visitation caused psychological stress in the patient. Evidence that increased visitation had many positive effects on the patient, including decreased sensory deprivation, decreased stress and anxiety and a increased sense of well-being (Quinio: 2002,1392).

Question 7: I believe that visitors can help the patient interpret information

Of the participants that responded 57.50% (n=46) of nurses and 69.86% (n=51) of doctors agree that visitors can help the patient interpret information. There is no significant difference between the beliefs of nurses and doctors with respect to visitors helping the patient interpret information ($p=0.273$). Refer to table 4.9.

Table 4.9 Visitors can help the patient interpret information

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	46 (57.50)	51 (69.86)	97 (63.40)	0.273
Neutral	13 (16.25)	7 (9.59)	20 (13.07)	
Disagree	21 (26.25)	15 (20.55)	36 (23.53)	

Both the ICU clinician groups (63.40%) agreed that visitors help the patient interpret information. This is a very common occurrence in the hospital where this study took place as many of the patients admitted into the ICU setting do not speak English or one of the official languages of the country. A family member will then be asked to interpret to the critically ill patient what procedures are going to be done and what will be expected from them while in ICU. According to the literature visitors are able to assist ICU clinicians in providing a comprehensive medical history, share in the decision making and can offer a sense of security for the patient (Lee, et al., 2007: 497).

Question 8: I believe that an open visiting policy violates the patient's privacy and confidentiality.

Of the participants that responded 42.50% (n=34) of nurses and 31.25% (n=23) of doctors agreed that an open visiting policy violates the patient's privacy and confidentiality. Statistically is no significant difference between the beliefs of nurses and doctors in respect of an open visiting policy violating the patient's privacy and confidentiality ($p=0.288$). Refer to table 4.10

Table 4.10 Open visiting violates the patient's privacy and confidentiality

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	34 (42.50)	23 (31.25)	57 (37.25)	0.288
Neutral	13 (16.25)	18 (24.66)	31 (20.26)	
Disagree	33 (41.25)	32 (43.84)	65 (42.48)	

Both groups of ICU clinicians disagreed that an open visiting policy violates the patient's privacy and confidentiality. According to the (Giannini, 2007:301) the confidentiality of information is not compromised by the presence of visitors but by the inappropriate handling of communication. The same author suggests that communication should be done in an appropriate manner and if possible in an appropriate place. Sufficient time for genuine dialogue, listening and reassurance away from the bedside in a place specifically set aside for this purpose is what is needed in any ICU setting (Giannini, 2007:301)

Question 9: I believe that an open visiting policy offers more comfort to the patient

Of the participants that responded 45% (n=36) of nurses and 32.88% (n=24) of doctors agreed that an open visiting policy offers more comfort to the patient. There is no significant difference between the beliefs of nurses and doctors in respect of an open visiting policy offering more comfort to the patient (p=0.257). Refer to table 4.11.

Table 4.11 An open visiting policy offers more comfort to the patient

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	36 (45.00)	24 (32.88)	60 (39.22)	0.257
Neutral	16 (20.00)	15 (20.55)	31 (20.26)	
Disagree	28 (35.00)	34 (46.58)	62 (40.52)	

The majority of ICU clinicians (40.52%) disagreed that an open policy offers more comfort to the patient. The reason why the ICU clinicians believe this is because certain patients do become more

anxious and restless with their family or those nearest to them visiting because often their anxieties and fears are projected onto the patient. According to (Sims & Miracle, 2006:176) patients believe that visitation was not stressful because visitors offered comfort and reassurance. The same authors have identified that patients feel more loved and secure when they have frequent visitation from members of the community nearest to them (Sims & Miracle, 2006: 177).

Question 10: I believe that an open visiting policy decreases family's anxiety

Of the participants that responded 62.03% (n=49) of nurses and 57.53% (n=42) of doctors agreed that an open visiting policy decreases family anxiety. There is no statistically significant difference between the beliefs of nurses and doctors in respect of an open visiting policy decreasing family anxiety (p=0.584). Refer to table 4.12.

Table 4.12 An open visiting policy decreases family's anxiety

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	49 (62.03)	42 (57.53)	91 (59.87)	0.584
Neutral	15 (18.99)	12 (16.44)	27 (17.76)	
Disagree	15 (18.99)	19 (26.03)	34 (22.37)	

These results indicate that both groups of ICU clinicians (59.87%) agreed that visitation decreases family anxiety. Although this is the finding from the ICU participants in this study there still remains much conflict between patients' families and ICU clinicians. In the hospital where this study was conducted many patients' family members have been sent away from the ICU by security and ICU clinicians until official visiting hours. In a French multicentre study the anxiety and depression levels of family members of a close relative admitted into ICU were 69% and 34.5% respectively. There was a significant decrease in the patient's anxiety and depression levels from 48% to 29% respectively when a 24 hour visiting policy was implemented in an observational prospective single centre study at Saint Joseph hospital, Paris, France (Garrouste-Orgeas, 2008:31-32).

Question 11: I believe that open visiting exhausts family, because they feel forced to be with the patient

Of the participants that responded 29.63% (n=24) of nurses and 28.77% (n=21) of doctors agreed that an open visiting policy decreases family anxiety. There is no significant difference between the beliefs of nurses and doctors in respects of an open visiting policy exhausting family members (p=0.541). Refer to table 4.13.

Table 4.13 Open visiting exhausts family, because they feel forced to be with the patient

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	24 (29.63)	21 (28.77)	45 (29.22)	0.541
Neutral	16 (19.75)	20 (27.40)	36 (23.38)	
Disagree	41 (50.62)	32 (43.84)	73 (47.40)	

The majority of ICU clinicians both doctors and nurses (47.40%), disagreed that visitation exhausted family members, because they are forced to be with the patient. The majority of family members of patients in the hospital where this study was conducted have to take public transport that is not very reliable and often come from far and can only be with the patient for a minimal amount of time, thus they do not feel forced or exhausted from visitation. In Paris, France it was observed that a patient's family only stayed for 1-2 hours with the patient (Garrouste- Orgeas, 2008:32). Family members felt more relaxed and less exhausted when they were able to visit at a time that suited them and the patient (Sims & Miracle, 2006:177).

Question 12: I believe that an open visiting policy interferes with direct nursing care

Of the participants that responded 64.20% (n=52) of nurses and 76.71% (n=56) of doctors agreed that an open visiting policy interferes with direct nursing care. Although most nurses and doctors agree, there is a significant difference as more doctors than nurses agreed that an open visiting policy interferes with direct nursing care (p=0.010). Refer to table 4.14.

Table 4.14 An open visiting policy interferes with direct nursing care

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	52 (64.20)	56 (76.71)	108 (70.13)	0.010
Neutral	5 (6.17)	9 (12.33)	14 (9.09)	
Disagree	24 (29.63)	8 (10.96)	32 (20.78)	

A significantly greater number of ICU doctors (76.71%) than ICU nurses (64.20%) agreed that open visiting would directly interfere with nursing/ medical care ($p=0.010$). These were the same beliefs of ICU doctors in Paris France where ICU physicians claimed that there was a delay when examining the patient and a feeling of unease with the family present at the patients' bedside (Garrouste- Orgeas, et al., 2008 :). Interestingly the findings in a similar study done in Italy (Biancofiore, et al., 2010:96) contradicted the ICU clinicians in this study because their ICU doctors (42.10%) and ICU nurses (67.9%) disagreed that open visiting policies interfered directly with nursing/medical care processes. The more experienced and confident the ICU clinicians become the easier it is to perform patient care in front of family members.

Question 13: I believe that an open visiting policy makes nurses / doctors nervous, because they are afraid to err

Of the participants that responded 20.99% ($n=17$) of nurses and 50.68% ($n=37$) of doctors agreed that an open visiting policy makes nurses/ doctors nervous, because they are afraid of making errors. There is statistically a significant difference as most doctors agreed and most nurses disagreed ($p= 0.000$). Refer to table 4.15.

Table 4.15 An open visiting policy makes nurses/ doctors nervous, because they are afraid to err

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	17 (20.99)	37 (50.68)	54 (35.06)	0.000
Neutral	11 (13.58)	16 (21.92)	27 (17.53)	
Disagree	53 (65.43)	20 (27.40)	73 (47.40)	

Significantly more nurses disagreed (65.43%) and significantly more doctors agreed (50.68%) that an open visiting policy makes nurse/doctors nervous because they are afraid of making errors. One reason why ICU doctors agreed that an open visiting policy makes nurses/ doctors nervous, could be because they are afraid of making an error that could lead them being sued by relatives if mistakes were made. ICU clinicians in Paris, France claimed that neither the ICU doctors nor the ICU nurses perceived any substantial interference in the delivery of care in an open visiting policy unit (Kleinpell, 2008:335).

Question 14: I believe that an open visiting policy makes nurses/doctors feel controlled

Of the participants that responded 33.75% (n=27) of nurses and 26.03% (n=19) of doctors agreed that an open visiting policy makes nurses /doctors feel controlled. No significant difference is evident between the beliefs of nurses and doctors with respect to an open visiting policy making nurses and doctors feel controlled (p=0.591). Refer to table 4.16.

Table 4.16 An open visiting policy makes nurses/doctors feel controlled

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	27 (33.75)	19 (26.03)	46 (30.07)	0.591
Neutral	18 (22.50)	17 (23.29)	35 (22.88)	
Disagree	35 (43.75)	37 (50.68)	72 (47.06)	

In this study both sets of ICU clinicians (47.06%) disagreed that an open visiting policy makes them feel controlled. Interestingly in an Italian study there were significantly more ICU doctors (45.6%) agreeing and significantly more ICU nurses (45.5%) disagreeing with the above statement (Biancofiore, et al., 2010: 96). The reason why ICU clinicians in this study disagreed that an open visiting policy would make them feel controlled could be because many of the patient's visitors do not question any person who is more educated than themselves or in a position of authority. When adequate communication and understanding has occurred between the ICU clinicians and the patient's visitors, the less controlled the ICU clinicians feel (Sims, & Miracle, 2006:178).

Question 15: I believe that an open visiting policy interferes with the patient's nursing /medical care process

Of the participants that responded 62.96% (n=51) of nurses and 69.86% (n=51) of doctors agreed that an open visiting policy interferes with the patient's daily nursing care process. There is no significant difference between the beliefs of nurses and doctors in respect of an open visiting policy interfering with the planning of the patient's daily nursing care process ($p=0.238$). Refer to table 4.17.

Table 4.17 An open visiting policy interferes with the patient's nursing /medical care process.

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	51 (62.96)	51 (69.86)	102 (66.23)	0.238
Neutral	9 (11.11)	11 (15.07)	20 (12.99)	
Disagree	21 (25.93)	11 (15.07)	32 (20.78)	

Both sets of ICU clinicians (66.23%) agreed that open visiting would interfere with the patients' daily nursing / medical care. The same finding was evident in Italy where 46.4% of ICU nurses and 44. 6% of ICU doctors agreed that open visiting interferes with the patients daily nursing/ medical care (Biancofiore et al., 2010:96). There is documented evidence that indicates that open visiting can disrupt ward rounds and that visitors can create a physical barrier to the patient, which then causes the patients' nursing / medical procedures and care to be delayed (Lee, et al., 2007:499). A suggestion from Sims & Miracle, is that in order to prevent open visiting interfering with the patients' care, the patient should be encouraged to actively take part in the decision making process of determining an appropriate visiting schedule, or the ICU clinicians can individualise the visiting policy in order to meet the needs of the patient, family and themselves (Sims & Miracle, 2006:178).

Question 16: I believe that an open visiting policy makes nurses / doctors spend more time in providing information to the family

Of the participants that responded 56.79% (n=46) of nurses and 71.23 % (n=52) of doctors agreed that an open visiting policy makes nurses/ doctors spend more time providing information to the family.

There is a marginally significant difference between the beliefs of nurses and doctors in respect of an open visiting policy making nurses spend more time in providing information to the family ($p=0.060$). Refer to table 4.18.

Table 4.18 An open visiting policy makes nurses / doctors spend more time providing information to the family

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	46 (56.79)	52 (71.23)	98 (63.64)	0.060
Neutral	13 (16.05)	12 (16.44)	25 (16.23)	
Disagree	22 (27.16)	9 (12.33)	31 (20.13)	

Marginally more ICU doctors (71.23%) than ICU nurses (56.79%) agree that open visiting makes ICU doctors and ICU nurses spend more time in providing information to the family. There is clear evidence that family members want to speak to an ICU doctor or ICU nurse about the condition of and prognosis for a patient (Vandijck et al., 2010:144). Sims & Miracle has also recommended that the ICU clinicians' job satisfaction can be increased by an open visiting policy which allows for more communication opportunities with the family. This can however be a hindrance to ICU clinicians especially when there is a crucial staff shortage (Sims & Miracle, 2006:176).

Question 17: I believe that an open visiting policy increases the risk of errors

Of the participants that responded 37.04% ($n=30$) of nurses and 24.66 % ($n=18$) of doctors agreed that an open visiting policy increases the risk of errors. Although both nurses and doctors agreed, there is a significant difference in that more nurses than doctors agreed ($p= 0.002$). Refer to table 4.19.

Table 4.19 An open visiting policy increases the risk of errors

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	30 (37.04)	18 (24.66)	48 (31.17)	0.002
Neutral	12 (14.81)	29 (39.73)	41 (26.62)	
Disagree	39 (48.15)	26 (35.62)	65 (42.21)	

In this study significantly more ICU nurses (48.15%) disagreed that an open visiting policy increases the risks of error than ICU doctors (35.62%). Evidence in a Swedish study reveal that patients have verbalised in an interview situation that by having an open visiting policy, those nearest to them could observe and witness the treatment given to them and as they were completely powerless any possible mistakes could be noticed and prevented (Bergbom & Askwell, 2000:389).

Question 18: I believe that visitation is a helpful support for the caregivers

Of the participants that responded 61.25% (n=49) of nurses and 57.53 % (n=42) of doctors agreed that visitation is a helpful support for the caregivers. Although both nurses and doctors agreed, there is a statistically significant difference as more nurses than doctors agreed ($p=0.036$). Refer to table 4.20.

Table 4.20 Visitation is a helpful support for the caregivers

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	49 (61.25)	42 (57.53)	91 (59.48)	0.036
Neutral	9 (11.25)	19 (26.03)	28 (18.30)	
Disagree	22 (27.50)	12 (16.44)	34 (22.22)	

From the results it is clear that more ICU nurses (61.25%) agreed that visitation is a helpful support for caregivers ($p=0.036$). According to Sims & Miracle visitation can be a helpful support for caregivers as the family may be helpful in assisting with the care of the patient such as turning and massaging the patient as well as facilitating communication between the patient and ICU clinicians about the patient's condition. Furthermore the family can also provide meaningful feedback about the patient's condition (Sims & Miracle, 2006:177). In the hospital under study family members have often assisted and supported the ICU clinicians when there was a staff shortage and have also accompanied the ICU clinicians to the scanning department by pushing the patient's bed or feeding their loved one while the ICU clinician assisted with an emergency or the admission of another patient.

Question 19: I believe that an open visiting policy contributes to the improvement of patient-centred care

Of the participants that responded 51.25% (n=41) of nurses and 41.10 % (n=30) of doctors agreed that an open visiting policy contributes to the improvement of patient-centred care. There is no significant difference between the beliefs of nurses and doctors in respect of an open visiting policy contributing to the improvement of patient-centred care (p=0.383). Refer to table 4.21.

Table 4.21 An open visiting policy contributes to the improvement of patient-centred care

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	41 (51.25)	30 (41.10)	71 (46.41)	0.383
Neutral	13 (16.25)	17 (23.29)	30 (19.61)	
Disagree	26 (32.50)	26 (35.62)	52 (33.99)	

Both ICU clinician groups (46.41%) agreed that an open visiting policy contributes to the improvement of patient-centred care.

Question 20: I believe that an open visiting policy will decrease the safety of the staff and patients

Of the participants that responded 46.91% (n=38) of nurses and 39.73% (n=29) of doctors agreed that an open visiting policy will decrease the safety of the staff and patients. There is no significant difference between the beliefs of nurses and doctors in respect of an open visiting policy decreasing the safety of the staff and patients (p=0.103). Refer to table 4.22

Table 4.22 An open visiting policy will decrease the safety of the staff and patients

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	38 (46.91)	29 (39.73)	67 (43.51)	0.103
Neutral	9 (11.11)	18 (24.66)	27 (17.53)	
Disagree	33 (40.74)	26 (35.62)	59 (38.31)	

ICU clinicians from both groups (43.51%) in this study agreed that an open visiting policy will decrease the safety of the ICU clinicians and patients. The reason that the ICU clinicians responded so was due to the high crime rate and assaults that have already occurred at the hospital where the study was taking place. Since these incidences have occurred security has been improved by having security personnel outside and between two wards. These security personnel have helped to increase the safety of the ICU clinicians and patients as well as helping to deal with unruly visitors causing a disturbance in the ICU sector.

Question 21: I believe that an open visiting policy will allow for all culture factors to be taken into consideration

Of the participants that responded 58.02% (n=47) of nurses and 47.95 % (n=35) of doctors agreed that an open visiting policy will allow for all culture factors to be taken into consideration. There is no significant difference between the beliefs of nurses and doctors in respect of an open visiting policy allowing for all cultural factors to be taken into consideration (p=0.142). Refer to table 4.23.

Table 4.23 An open visiting policy will allow for all culture factors to be taken into consideration

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	47 (58.02)	35 (47.95)	82 (53.25)	0.142
Neutral	10 (12.35)	18 (24.66)	28 (18.18)	
Disagree	24 (29.63)	20 (27.40)	44 (28.57)	

Both sets of ICU clinicians (53.25%) agreed that an open visiting policy will allow for all cultural factors to be taken into consideration. As patients in this particular hospital come from diverse cultural backgrounds the ICU clinicians make patient safety a major priority as well as providing holistic care to all patients without discriminating against a patient because of culture or religion.

4.5.5 Attitudes of ICU clinicians (doctors and nurses) section:5

Inferential statistics were used to analyse the attitudes of the ICU clinicians (doctors and nurses) towards visitation of the patient, family and ICU care. The results are presented in tables illustrating the various responses made by the ICU clinicians. The individual as well as the total percentages and frequencies of each response from the ICU clinicians are represented in tables with the last column showing the statistically significant data, using Fischer's Exact Test. The question numbers refer to the questions in Section 5 of the questionnaire in Appendix B.

Question 22: I think that everybody is allowed to visit, if it is approved by the patient

Of the participants that responded 74.07% (n=60) of nurses and 60.27% (n= 44) of doctors agreed that everybody be allowed to visit, if it is approved by the patient. There is no significant difference between the attitudes of nurses and doctors with respect to everybody being allowed to visit if it is approved by the patient (p=0.154). Refer to table 4.24.

Table 4.24 Everybody is allowed to visit, if it is approved by the patient

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	60 (74.07)	44 (60.27)	104 (67.53)	0.154
Neutral	4 (4.94)	4 (5.48)	8 (5.19)	
Disagree	17 (20.99)	25 (34.25)	42 (27.27)	

In this study the ICU clinicians (67.53%) agreed with the statement that everybody be allowed to visit, if it is approved by the patient. In Italy ICU doctors (54.4%) and the ICU nurses (42.7%) also agreed with the latter statement (Biancofiore, et al., 2010:97). Although there is still a restrictive visiting policy implemented in the hospital where this study took place, the traditional culture of not allowing everybody in to visit because that will increase the risk of infection still remains the major barrier to open visiting in this facility. According to (Giannini, et al., 2008: 951) a restrictive visiting hour's policy might be unjustified and unnecessary for protecting the sickest patients in the ICU because it does not reduce the rate of infectious complications.

Question 23: I think that the number of visitors in a day (24 hrs) should NOT be limited

Of the participants that responded 32.10% (n=26) of nurses and 19.18% (n=14) of doctors agreed that the number of visitors in a day (24hrs) should not be limited. There is no significant difference as more nurses agreed than doctors did (p=0.045). Refer to table 4.25.

Table 4.25 The number of visitors in a day (24 hrs) should NOT be limited

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	26 (32.10)	14 (19.18)	40 (25.97)	0.045
Neutral	8 (9.88)	3 (4.11)	11 (7.14)	
Disagree	47 (58.02)	56 (76.71)	103 (66.88)	

Following the results of this study most ICU nurses (32.20%) agreed and most ICU doctors (66.88%) disagreed that the number of visitors in a day (24 hrs) should not be limited. A problem which was highlighted by (Lee,et al., 2007:499) is that some family members feel that they can walk into the ICU at midnight and keep the patients awake and in so doing not recognizing the patients need for recovery. There are certain cases in ICU where less visitation is necessary. ICU clinicians need therefore to weigh the benefits against the risks and do what is best for the patient (Sims & Miracle, 2006:177).

Question 25: I think that the length of a visit should not be limited

Of the participants that responded 85.00% (n=68) of nurses and 73.97% (n=54) of doctors disagreed that the length of a visit should not be limited. There is no significant difference between the attitudes of nurses and doctors with respect to the length of a visit not being limited (p=0.234). Refer to table 4.26.

Table 4.26 The length of a visit should not be limited

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	9 (11.25)	14 (19.18)	23 (15.03)	0.234
Neutral	3 (3.75)	5 (6.85)	8 (5.23)	
Disagree	68 (85.00)	54 (73.97)	122 (79.74)	

Both ICU clinicians groups (79.74%) in this study disagreed that the length of a visit should not be limited. The same attitude was depicted in an Italian study (Biancofiore, et al., 2010:97) where their ICU doctors (54.4%) and ICU nurses (51.1%) also disagreed with the above statement. The ideal suggestion made by Berwick (2004:736) is that the patient in ICU if possible, should rather control who visits and for how long.

Question 27: I think that the number of people who are visiting the patient at the SAME TIME should NOT be limited

Of the participants that responded 86.42% (n=70) of nurses and 98.63 % (n=72) of doctors disagreed that the number of people visiting the patient at the same time should not be limited. Although both nurses and doctor disagreed, there is a statistically significant difference as more doctors disagreed than nurses (p=0.003). Refer to table 4.27.

Table 4.27 The number of people who are visiting the patient at the SAME TIME should NOT be limited

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	9 (11.11)	0 (0.00)	9 (5.84)	0.003
Neutral	2 (2.47)	1 (1.37)	3 (1.95)	
Disagree	70 (86.42)	72 (98.63)	142 (92.21)	

The ICU doctor and nurse clinicians (92.21%) disagreed with the number of people who visit the patient at the same time, not being limited. The reason for the ICU clinicians' disagreeing with the above statement is because of the physical structure of the hospitals' ICUs. Another reason why ICU

clinicians are negative about large numbers at the patients' bedsides at the same time is because it will make it difficult for the ICU clinicians to do their job and will interfere with the patient's delivery of care (Berwick, 2004:736).

Question 28: I think that an open visiting policy should be adopted in our unit

Of the participants that responded 72.84% (n= 59) of nurses and 64.38% (n=47) of doctors disagreed that an open visiting policy should be adopted in their units. There is no significant difference between the attitudes of nurses and doctors in respect of an open visiting policy being adopted in their units (p=0.485). Refer to table 4.28.

Table 4.28 An open visiting policy should be adopted in our unit

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	17 (20.99)	19 (26.03)	36 (23.38)	0.485
Neutral	5 (6.17)	7 (9.59)	12 (7.79)	
Disagree	59 (72.84)	47 (64.38)	106 (68.83)	

In this study both the ICU clinicians (68.83%) disagreed that an open visiting policy should be adopted in their units. Many ICU clinicians are concerned that open visiting will disrupt the unit and that an open visiting policy will be very draining for the ICU clinicians dealing with the emotional and physical needs of the patients and their families (Quinio,et al., 2002:1392).

Question 29: I think that strict visiting hours must be adapted when the family has practical problems adhering to the policy

Of the participants that responded 53.09% (n=43) of nurses and 78.08 % (n=57) of doctors agreed that strict visiting hours must be adapted when the family has practical problems adhering to the policy. There is a significant difference as more doctors than nurses agreed that visiting hours must be adapted when the family has practical problems adhering to the policy (p=0.003). Refer to table 4.29.

Table 4.29 Strict visiting hours must be adapted when the family has practical problems adhering to the policy

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	43 (53.09)	57 (78.08)	100 (64.94)	0.003
Neutral	18 (22.22)	5 (6.85)	23 (14.94)	
Disagree	20 (24.69)	11 (15.07)	31 (20.13)	

Significantly more ICU doctors (78.08%) than ICU nurses (53.09%) agreed that strict visiting hours must be adapted when the family has practical problems adhering to the policy ($p=0.003$). Findings in Italy (Biancofiore, et al., 2010:97) were that both the ICU doctors (41.5%) as well as the ICU nurses (41.5%) agreed with this statement. There is evidence that some family members cannot visit at traditional visiting times because of work or other commitments and consequently need an adaption to be made to the strict visiting policy (Sims & Miracle, 2006:). In Belgium 87.8% of ICUs adapt the visiting policy when the family has practical or organizational problems (Vandijck, et al., 2010:140). In North-East Italy 77% of the ICUs there make exceptions to the visiting schedule only in special situations (Anzoletti, et al., 2008:369).

Question 30: I think that strict visiting hours must be adapted when the patient has emotional needs

Of the participants that responded 59.26% ($n=48$) of nurses and 69.86% ($n=51$) of doctors agreed that strict visiting hours must be adapted when the patient has emotional needs. There is no significant difference between the attitudes of nurses and doctors with respect to strict visiting hours being adapted when the patient has emotional needs ($p=0.195$). Refer to table 4.30.

Table 4.30 Strict visiting hours must be adapted when the patient has emotional needs

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	48 (59.26)	51 (69.86)	99 (64.29)	0.195
Neutral	10 (12.35)	10 (13.70)	20 (12.99)	
Disagree	23 (28.40)	12 (16.44)	35 (22.73)	

In this study both groups of ICU clinicians (64.29%) agreed that an adaption visiting hours needs to be made when the patient has emotional needs. In Belgium only 75.6% of their ICUs adapt visiting hours when the patient experiences emotional needs (Vandijck, et al., 2010:140).

Question 31: I think that when the patient is capable, he/she should have control in when, how long and how many visitors he/she can have

Of the participants that responded 43.04% (n=34) of nurses and 42.47% (n=31) of doctors agreed that when the patient is capable, he/she should have control of when, how long and how many visitors he/she can have. There is no significant difference between the attitudes of nurses and doctors with respect to the patient when capable controlling the when, how long and how many visitors he/she can have (p=0.672). Refer to table 4.31.

Table 4.31 When the patient is capable, he/she should have control of when, how long and how many visitors he/she can have

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	34 (43.04)	31 (42.47)	65 (42.76)	0.672
Neutral	10 (12.66)	13 (17.81)	23 (15.13)	
Disagree	35 (44.30)	29 (39.73)	64 (42.11)	

Both the ICU clinicians (42.76%) agreed that when the patient is capable, he/she should have control of when, how long and how many visitors he/she can have. The ICU doctors (44.1%) as well as the ICU nurses (44.1%) in a study in Italy disagreed that when the patient is capable, he/she should have control of when for how long and how many visitors he/she can have (Biancofiore, et al., 2010:97).

According to (Sims & Miracle, 2006: 178) visiting policies should be individualized to meet the needs of the patient and family as well as the unit. Patients should ideally control their own visitors and visiting times if they are capable, but there are some patients who need the ICU clinicians to serve as gatekeepers for their visitors .Certain patients may only benefit from visitors at the discretion of the ICU clinicians if their condition permits (Sims & Miracle, 2006: 178).

Question 32: I think that the visiting policy must be adapted to the culture of the individual patient

Of the participants that responded 50.00% (n= 39) of nurses and 36.99% (n=27) of doctors disagreed that the visiting policy must be adapted to the culture of the individual patient. There is no significant difference between the attitudes of nurses and doctors with respect to the visiting policy being adapted to the culture of the individual patient (p=0.082). Refer to table 4.32.

Table 4.32 The visiting policy must be adapted to the culture of the individual patient

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	30 (38.46)	28 (38.99)	58 (38.41)	0.082
Neutral	9 (11.54)	18 (24.66)	27 (17.88)	
Disagree	39 (50.00)	27 (36.99)	66 (43.71)	

Of the ICU clinicians involved 43.71% disagreed that the visiting policy must be adapted to the culture of the individual patient. As discussed previously the cultural background of the patients in the ICU where this study was conducted is diverse and ICU clinicians hold the safety and holistic care of all patients in high regard without discriminating against any patient.

Question 33: I think that a strict starting hour is important, but the length of a visit can be flexible

Of the participants that responded 46.25% (n=37) of nurses and 43.84 % (n=32) of doctors disagreed that a strict starting hour is important, but the length of a visit can be flexible. There is no significant difference between the attitudes of nurses and doctors in respect of a strict starting hour being important, but the length of a visit being flexible (p=0.177). Refer to table 4.33.

Table 4.33 A strict starting hour is important, but the length of a visit can be flexible

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	35 (43.75)	26 (35.62)	61 (39.87)	0.177
Neutral	8 (10.00)	15 (20.55)	23 (15.03)	
Disagree	37 (46.25)	32 (43.84)	69 (45.10)	

Both the ICU clinicians (45.10%) disagreed with the strict starting hour of visiting but the length of a visit can be flexible. The reason for the ICU clinicians disagreeing may be due to the ICU clinicians having had experience in being busy with the patient at the start of visiting hours with an invasive procedure, visitors in, and when the visitors come in they insist on staying longer, thus delaying or preventing the ICU clinicians from completing the patients care. The reluctance to change to a more flexible visiting policy is because of the traditional, cultural and habit forming beliefs and attitudes of the ICU clinicians with regard to restrictive visiting policies.

Question 34: I think that the visiting policy must be flexible during the first 24hrs of hospitalization

Of the participants that responded 63.29% (n=50) of nurses and 42.47% (n=31) of doctors agreed that the visiting policy must be flexible during the first 24hrs of hospitalization. Although both nurses and doctor agreed, there is a statistically significant difference as more nurses agree as compared with doctors (p=0.035). Refer to table 4.34.

Table 4.34 The visiting policy must be flexible during the first 24 hrs of hospitalization

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	50 (63.29)	31 (42.47)	81 (53.29)	0.035
Neutral	8 (10.13)	14 (19.18)	22 (14.47)	
Disagree	21 (26.58)	28 (38.36)	49 (32.24)	

Significantly more ICU nurses (63.29%) agreed compared with ICU doctors (42.47%) that the visiting policy must be flexible during the first 24 hours of hospitalization. In the first 24 hours of

hospitalization the critically ill patient as well as his/her family is very stressed and anxious, thus flexibility within the first 24 hours could decrease both patient and visitor anxiety and stress level. Although the ICU clinicians (doctors and nurses) agreed that a visiting policy must be flexible during the first 24 hours of hospital practices there are circumstances when the ICU clinicians need to restrict visitors during the first 24 hours. Many neuro-surgical patients with severe head injuries should not be disturbed for at least 24 hours after surgery, so as to allow for the intracranial pressure in their brains to decrease.

Question 35: I think that the visiting policy must be adapted when the patient is dying

Of the participants that responded 79.49% (n=62) of nurses and 98.63% (n=72) of doctors agreed that the visiting policy must be adapted when the patient is dying. Although both nurses and doctors agreed, there is a significant difference as more doctors agreed compared with nurses (p=0.000). Refer to table 4.35.

Table 4.35 The visiting policy must be adapted when the patient is dying

Response	Nurses Frequency (n) Percentage (%)	Doctors Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	62 (79.49)	72 (98.63)	134 (88.74)	0.000
Neutral	4 (5.13)	0 (0.00)	4 (2.65)	
Disagree	12 (15.38)	1 (1.37)	13 (8.61)	

In this study both the ICU clinicians (88.74%) agreed that the visiting policy must be adapted when a patient is dying. In Belgium 97.6% of their ICUs make adaption's to their visiting policy when the patient is dying (Vandijck, et al., 2010:140). Although society today does not like to see people die, many family members and ICU clinicians accompany the critically ill patient at the time of death. An open visiting policy offers the ICU clinicians the possibility of providing care and attention even when the therapeutic limit has been reached and death is approaching (Giannini, 2007:304)

Question 24: I think that in a day (24 hrs) the number of visitors should be limited to ... persons

A total of 124 participants answered this question. There were 62 nurses who stated that the number of visitors should be limited to 5.15 (rounded off to 5) persons in a day whereas 62 doctors stated that number of visitors should be limited to 5.56 (rounded off to 6) persons in a day. There was no statistical significance as the t-test was 0.75 with a confidence interval of 95%. Refer to table 4.36.

Table 4.36 In a day (24hrs) the number of visitors should be limited to ... persons

Total number of participants N=61 Frequency is(n) Percentage is (%)	Mean	Standard Deviation	T- Test
ICU Nurses n= 62 (50%)	5.15	3.4	0.75
ICU Doctors n=62 (50%)	5.56	3.0	

Both groups of ICU clinicians agreed that in a day (24 hrs) the number of visitors should be limited to approximately 5 patients. The reason for this is that the ICU clinicians are then able to render the medical and nursing care the patient needs without tripping over people. Patients need a great deal of rest in order to recover therefore visitors should be limited according to the individual's needs.

Question 26: I think that only.... persons can visit the patient at the same time

Of the 133 participants 62 nurses recommended that a mean number of 1.22 (rounded off to 1) person should be allowed to visit the patient at the same time, while 72 doctors recommend that a mean of 1.59 (rounded off to 2) persons should be allowed to visit the patient at the same time. Therefore there is no statistically significant difference as the t-test was 0.98 with a confidence interval of 95%. Refer to table 4.37.

Table 4.37 That only ... persons can visit the patients at the same time

Total number of participants N=61 Frequency is(n) Percentage is (%)	Mean	Standard Deviation	T- Test
ICU Nurses n= 62 (46.6%)	1.2 (1)	0.73	0.98
ICU Doctors n=71 (53.3%)	1.5(2)	1.19	

The ICU clinicians agreed that between 1- 2 persons should be allowed to visit the patient at the same time. The reason for this is that the ICU clinicians will then be able to render the medical and nursing care the patient needs without tripping over people. Patients need a great deal of rest in order to recover thus visitors should be limited according to the individual's needs.

4.5.6 A summary of the results of section 4 and section 5 (ICU doctors and nurses)

The inferential results of section 4 and section 5 of the restructured BAVIQ questionnaire have been simplified in three horizontal bar graphs. The y- axes on the horizontal bar graphs refer to the specific question in the questionnaire with the various responses by the nurses and the doctors to each question. The x- axis is refers to the total percentage of each response from the ICU clinicians.

The different colours in the graphs refer to the percentage of each response made by the participants. Blue refers to the percentage of the participants that agreed with the question. Red refers to the participants that neither agreed nor disagreed with the question while green refers to the percentage of participants that disagreed with the question in the questionnaire. Refer to figure 4.20

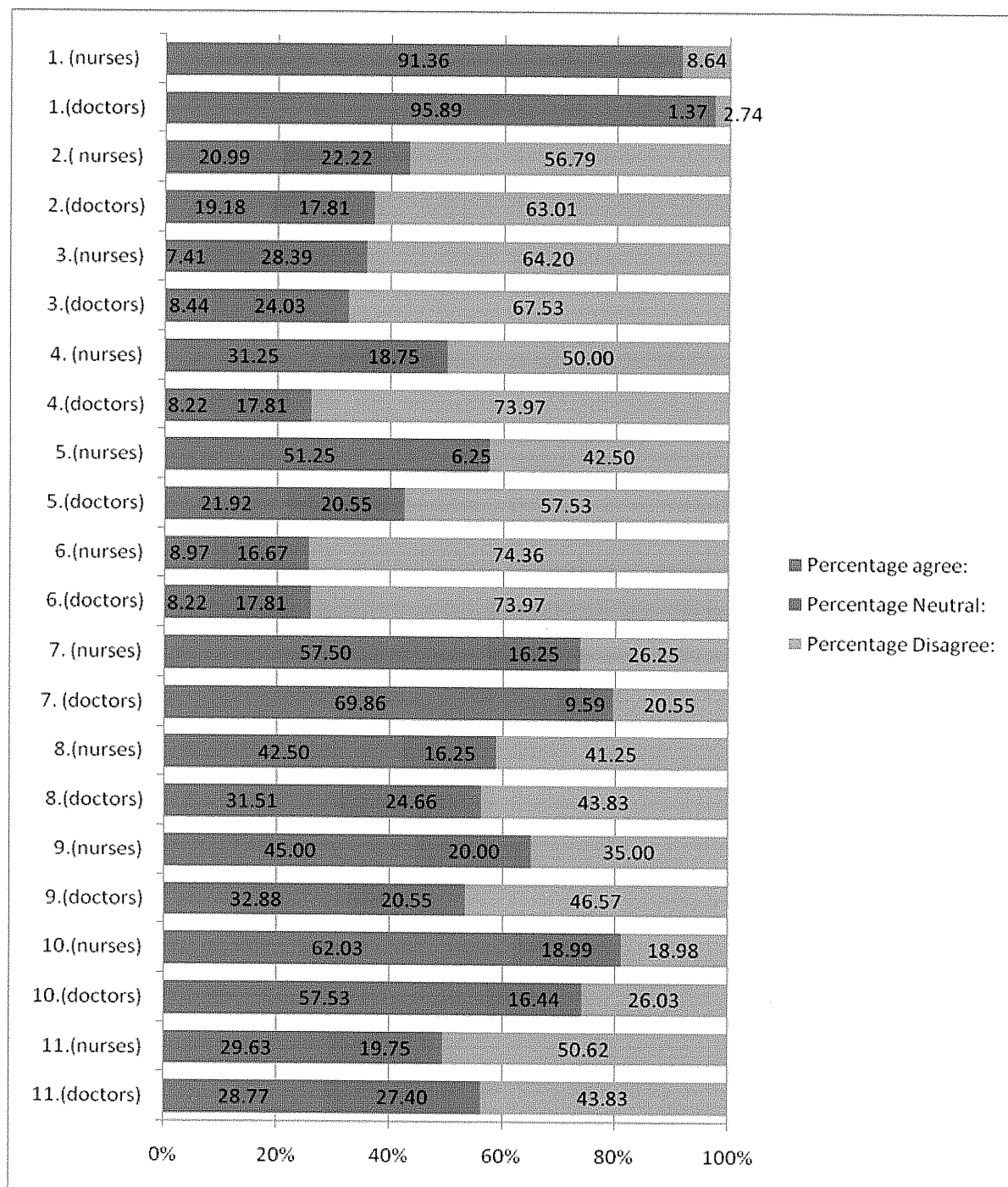


Figure 4.20 A summary of the results of section 4 of the questionnaire

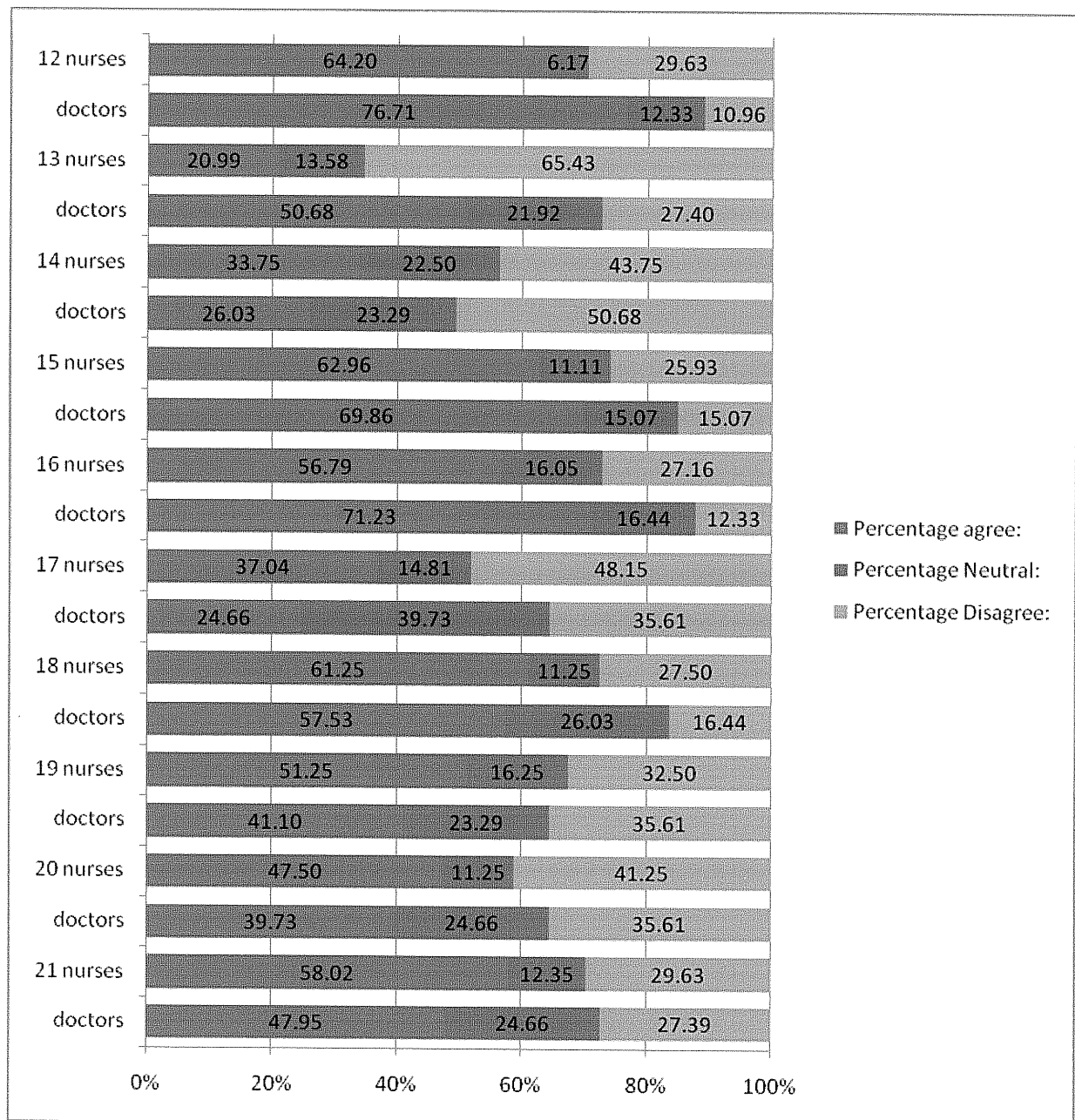


Figure 4.20 (cont): A summary of the results of section 4 of the questionnaire

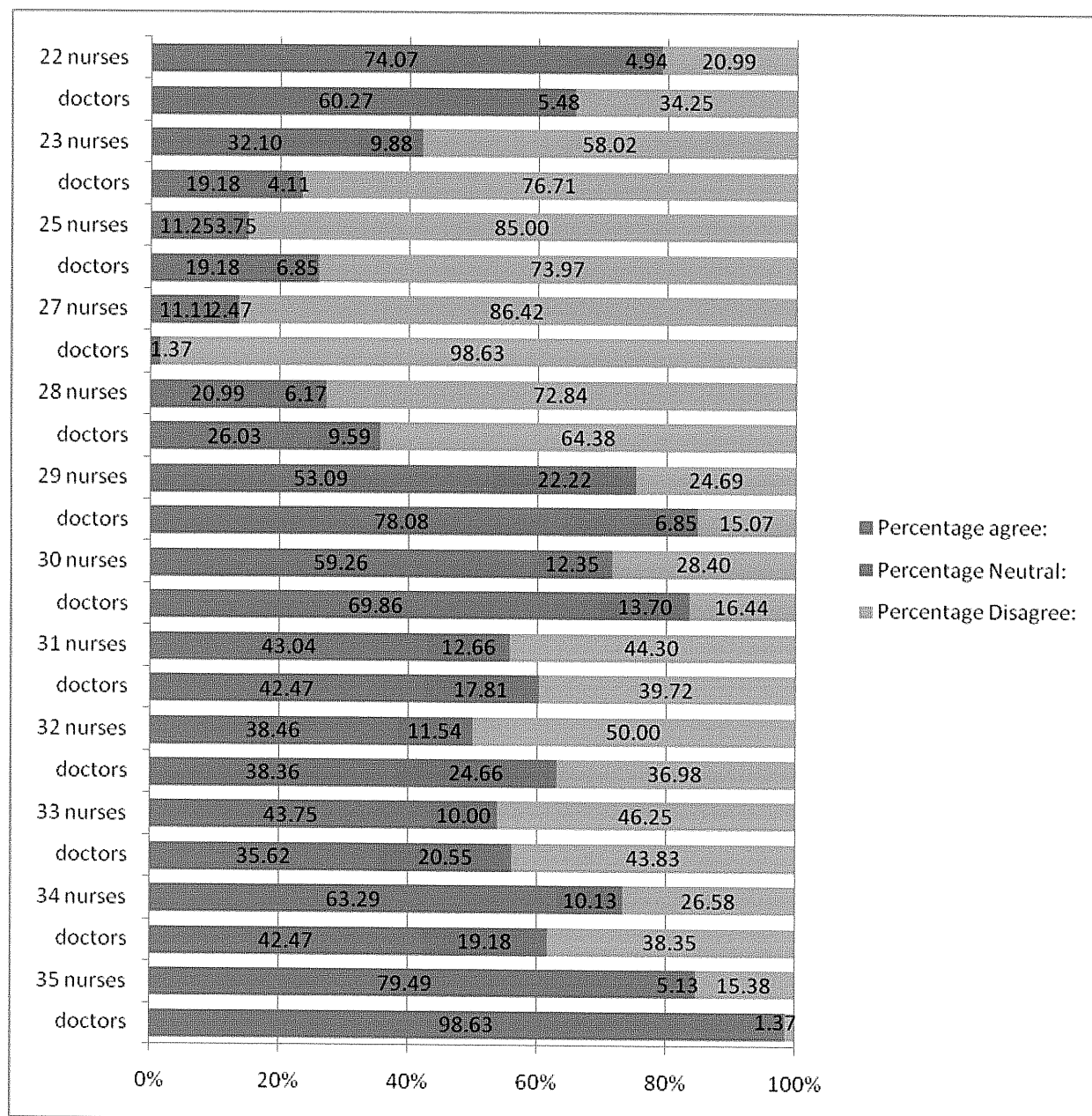


Figure 4.20 (cont): A summary of the results of section 5 of the questionnaire

4.5.7 A summary of the beliefs and attitudes of ICU clinicians (nurses and doctors) Fisher's Exact Test (p)

A summary of the Fisher's Exact Test (p) of the ICU clinicians' beliefs and attitudes are tabulated in a table with the questions on the left hand side of the table and the Fisher's Exact Test (p) on the right hand side. All the questions that were answered significantly different between the ICU nurses and the ICU doctors are highlighted in red. Refer to table 4.42.

Table 4.42: A summary of the beliefs and attitudes of ICU clinicians (nurses and doctors) Fisher's exact test (p).

QUESTIONS ON BELIEFS	FISCHER'S EXACT TEST (p)
1. Visitation has a beneficial effect on the patient.	0.128
2. Visitation hinders the patient's rest	0.730
3. Visitation causes physiological stress for the patient.	0.392
4. Visitation creates adverse haemodynamic responses in patients	0.001
5. An open visiting policy is important for the recovery patient's	0.000
6. Visitation causes psychological stress for the patient	1.000
7. Visitors can help the patient interpret information	0.273
8. Open visitation violates the patients' privacy and confidentiality	0.288
9. An open visiting policy offers more comfort to the patient	0.257
10. An open visiting policy decreases family's anxiety	0.584
11. An open visiting policy exhausts family	0.541
12. An open visiting policy interferes with direct nursing /medical care	0.010
13. An open visiting policy makes nurses, doctors afraid to err.	0.000
14. An open visiting policy makes nurses feel controlled	0.591
15. An open visiting policy interferes with the patient's daily nursing/medical care process.	0.238
16. An open visiting policy makes nurses/doctors spend more time providing information to the family	0.060
17. An open visiting policy increases the risk of error	0.002
18. Visitation is a helpful support for the caregivers	0.036
19. An open visiting policy contributes to the improvement of patient centred care	0.383
20. An open visiting policy will decrease the safety of staff and patients	0.103
21. An open visiting policy will allow for all cultural factors to be considered	0.142

Table 4.38 (cont.): A summary of the beliefs and attitudes of ICU clinicians (nurses and doctors) Fisher's exact test (p).

QUESTIONS ON ATTITUDES	FISCHER'S EXACT TEST (p)
22. Everybody should be allowed to visit if approved by the patient	0.157
23. The number of visitors in a day should not be limited	0.045
25. The length of a visit should not be limited	0.234
27. The number of visitors at the same time should not be limited	0.003
28. An open visiting policy should be adopted in our unit	0.485
29. Strict visiting hours must be adapted if family have practical problems	0.003
30. Strict visiting hours must be adapted to patient's emotional needs	0.195
31. Capable patients should control number and duration of visits	0.672
32. Visiting policy must be adapted to the culture of the patient	0.082
33. Strict starting time is important but the length of stay can be flexible	0.177
34. Visiting policy must be flexible during the first 24 hours of hospitalization	0.035
35. Visiting policy must be adapted when the patient is dying	0.000

Table 4.38 (cont.): A summary of the beliefs and attitudes ICU clinicians (nurses and doctors)
T- Test

QUESTIONS ON ATTITUDES	T-TEST
24. In a day (24 hrs) the number of visitors should be limited to ... persons	0.909
26. I think that only ...persons can visit the patients at the same time	1.247

4.5.8 Beliefs of ICU nursing clinicians (ICU experienced and trained)

Section 4

Inferential statistics were used to analyse the beliefs of the ICU trained nurses and ICU experienced nurses towards visitation of the patient, family and ICU care. The results are presented in tables illustrating the various responses made by the ICU nurses. The individual as well as the total percentages and frequencies of each response from the ICU nurses are represented in tables with the last column showing the statistically significant data, using the Fischer's Exact Test. The question numbers refer to the questions in Section 4 of the questionnaire in Appendix B

Question 1: I believe that visitation has a beneficial effect on the patient.

Of the participants 92.50 % (n= 37) of ICU trained nurses and 89.74% (n=35) of ICU experienced nurses agreed that visitation has a beneficial effect on the patient. There is no significant difference between the beliefs of ICU experienced and trained nurses with respect to the beneficial effect of visitation (p=0.712). Refer to table 4.39.

Table 4.39 Visitation has a beneficial effect on the patient

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree Neutral Disagree	35(89.74%)	37(92.50%)	72(91.14%)	0.712

In this study a total of 91.14% of ICU trained and ICU experienced nurses agreed that visitation has a beneficial effect on the patient. The ICU nurses are very aware that visitors can provide reassurance, calmness and emotional support for the critically ill patient especially at the time of admission. A study in Spain concluded that ICU nurses were unanimous in their belief that visits from family members increased the patient's desire to live and provided emotional support to the patient (Marco et al., 2006: 39). A very valuable observation made in Spain by their ICU nurses was that there were cases where the family projected their anxiety onto the patient which did not have a beneficial effect on the patient. ICU nurses need therefore to keep in mind that the patient's condition is of the greatest importance (Marco et al., 2006: 37). In another study in Mamara 68.6% of their ICU nurses believed that visitors were necessary for the patients in ICU (Sabuncu, Senturan, & Gulseven, 2001:88).

Question 2: I believe that visitation hinders the patient's rest

Of the participants 23.08% (n=9) of ICU experienced nurses and 15.00% (n=6) of ICU trained nurses agreed that visitation hinders the patients rest. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses with respect to the beneficial effect of visitation (p=0.359). Refer to table 4.40.

Table 4.40 Visitation hinders the patients rest

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	9(23.08)	6(15.00)	15(18.99)	0.359
Neutral	7(17.95)	11(27.50)	18(22.78)	
Disagree	1(2.56)	4(10.00)	5(6.33)	

In total both the ICU trained and ICU experienced nurses agreed that visitation hinders the patients rest. There have been occasions when the ICU patient's family wants to remain with the patient in the evening past midnight not taking into consideration the patients need to rest and the other patients needs as well. Having strangers in a room at unreasonable hours when patients are ill and need to rest can be very distressing and uncomfortable for all patients in ICU. Interestingly in a similar study done in Spain 82.6% of their ICU nurses believed that visitation did not hinder the patients' rest (Marco, Bermejillo & Garayalde, et al., 2006:37). According to (Sims & Miracle, 2006:177) patients have claimed that they feel more able to rest at various times instead of having to stay awake during specific times.

Question 3: I believe that visitation causes physiological stress for the patient

Of the participants 67.50% (n=27) of ICU trained nurses and 64.10% (n=25) of ICU experienced nurses disagreed that visitation causes physiological stress in the patient. There is no significant difference between the beliefs of ICU trained nurses and ICU experienced nurses with respect to visitation causing physiological stress in the patient (p=0.935) .Refer to table 4.41.

Table: 4.41 Visitation causes physiological stress for the patient

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	3(7.69)	2(5.00)	5(6.33)	0.935
Neutral	11(28.21)	11(27.50)	22(27.85)	
Disagree	25(64.10)	27(67.50)	52(65.82)	

Both the ICU trained and experienced ICU nurses (65.82%) disagreed that visitation causes physiological stress in the patient. In the ICU where this study took place ICU nurses have noticed that patients do appear to receive more reassurance and comfort from their visitors as they have a stronger bond with their loved ones. According to a study done in Florence Italy a reduction in cardiovascular complications, possibly through reduced anxiety and a more favourable hormone profile, has indicated that visitation does not cause physiological stress in the patient (Fumagalli, et al., 2008:945). There were 34.3% of ICU nurses in Marmara that claimed that visitation influenced the patients' physiological states negatively (Sabuncu, et al., 2001:89). ICU nurses in Spain (58.7%) interestingly also claimed that visitation caused physiological changes such as tachycardia and hypertension whilst 41.3% disagreed with their colleagues (Marco, et al., 2006:37).

Question 4: I believe that visitation creates adverse haemodynamic responses in patients

Of the participants 65.00% (n=26) of ICU trained nurses and 36.84 % (n=14) of ICU experienced nurses disagreed that visitation creates adverse haemodynamic responses in patients. Although both ICU trained nurses and ICU experienced nurses disagreed, there is a significant statistical difference as more ICU trained nurses disagreed that visitation creates adverse haemodynamic responses in patients (p=0.028). Refer to table 4.42.

Table 4.42 Visitation creates adverse haemodynamic responses in patients

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	16(42.11)	7(17.50)	23(29.49)	0.028
Neutral	8(21.05)	7(17.50)	15(19.23)	
Disagree	14(36.84)	26(65.00)	40(51.28)	

Significantly more trained ICU nurses (65.00%) disagreed that visitation creates adverse haemodynamic responses in patients than ICU experienced nurses (36.84%). The reason for this contradiction between the ICU trained and ICU experienced nurses is because trained ICU nurses have more experience and knowledge in anticipating instability in patients, therefore medicate or perform ICU procedures on the patient before their family arrives. For example a patient who becomes very restless when the family is at his/her bedside may get a small dose of sedation before visitation begins. The findings in Spain were contradictory with reference to visitation creating adverse haemodynamics because half their nurses agreed and the other half disagreed. The reason possibly being that haemodynamics does change when visitation takes place but then returns to normal after 10 minutes (Marco, et al., 2006:39).

Question 5: I believe that an open visiting policy is important for the recovery of the patient

Of the participants 60.53% (n=23) of ICU experienced nurses and 45.00% (n=18) of ICU trained nurses agreed that open visiting is important for the recovery of the patient. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses with respect to an open visiting policy being important for the recovery of the patient ($p=0.100$). Refer to table 4.43.

Table 4.43 An open visiting policy is important for the recovery of the patient

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	23(60.53)	18(45.00)	41(52.56)	0.100
Neutral	0(0.00)	4(10.00)	4(5.13)	
Disagree	15(39.47)	18(45.00)	33(42.31)	

ICU experienced and trained nurses (52.56%) agreed that an open visiting policy is important for the recovery of the patient. This can be linked to the ability of family or close visitors to increase the patient's will to live. In Spain 91.3% of their ICU nurses did believe that open visiting allows the family to increase the patients will to live and recover (Marco, et al., 2006:37).

Question 6: I believe that visitation causes psychological stress for the patient

Of the participants 76.32% (n=29) of ICU experienced nurses and 73.68% (n=28) of ICU trained nurses disagreed that visitation causes psychological stress in the patient. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses with respect to visitation causing psychological stress in the patient (p=1.000). Refer to table 4.44.

Table 4.44 Visitation causes psychological stress for the patient

Response	ICU experienced nurse Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	3(7.89)	3(7.89)	6(7.89)	1.000
Neutral	6(15.79)	7(18.42)	13(17.11)	
Disagree	29(76.32)	28(73.68)	57(75.00)	

Both ICU trained and experienced nurses disagreed that visitation causes psychological stress in the patient. Those who participated in this study appeared to be aware that visitation can bring reassurance and support to the patient. ICU patients do want to feel loved by their family and with the support from

their family appear to recover more quickly than patients without family. The same finding was evident in Marmara where 45% of their ICU nurses believed that visitation had a positive effect on the patient (Sabuncu, et al., 2001:89). A patient's psychological stress could be related to his/her emotional status as well. ICU nurses in Spain agreed that visitors gave emotional support to the patient and that the positive effect of visiting depended on both the family and the patient (Marco, et al., 2006:37).

Question 7: I believe that visitors can help the patient interpret information

Of the participants 61.54% (n=24) of ICU experienced nurses and 51.28% (n=20) of ICU trained nurses agreed that visitors can help the patient interpret information. There is no significant difference between the ICU experienced and trained nurses with respect to visitors helping the patient interpret information ($p=0.493$). Refer to table 4.45.

Table 4.45 Visitors can help the patient interpret information

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	24(61.54)	20(51.28)	44(56.41)	0.493
Neutral	7(17.95)	6(15.38)	13(16.67)	
Disagree	8(20.51)	13(33.33)	21(26.92)	

The total 56.41% of the ICU trained and ICU experienced nurses agreed that visitors can help the patient interpret information. This is a very common occurrence in the particular hospital in the study as many of the patients admitted into the ICU setting do not speak English or one of the official languages of the country. The family members are therefore asked to interpret to the critically ill patients what procedures are going to be done and what will be expected from them while in ICU. According to a study literature visitors are able to assist ICU clinicians in providing a comprehensive medical history, share in the decision making and can offer a sense of security for the patient (Lee, et al., 2007:497).

Question 8: I believe that an open visiting policy violates the patient's privacy and confidentiality

Of the participants 45.00% (n=18) of ICU trained nurses and 39.47 % (n=15) of ICU experienced nurses agreed that an open visiting policy violates the patient's privacy and confidentiality. There is no significant difference between the beliefs of ICU experienced and trained nurses in respect of an open visiting policy violating the patient's privacy and confidentiality (p=0.787). Refer to table 4.46.

Table 4.46 Open visiting violates the patient's privacy and confidentiality

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	15(39.47)	18(45.00)	33(42.31)	0.787
Neutral	7(18.42)	5(12.50)	12(15.38)	
Disagree	16(42.11)	17(42.50)	33(42.31)	

Both the ICU trained and the ICU experienced nurses agreed that an open visiting policy violates the patient's privacy and confidentiality. As not all patients in the ICUs in this study have their own private rooms the ICU nurses believe that an open visiting policy does violate the patients' privacy and confidentiality. According to a study conducted in New England in America nurses also felt that the lack of space in their ICU served as a barrier to an open visiting policy. This structural problem caused a lack of privacy and compromised the patients' confidentiality (Lee, et al., 2007:498). Researchers in New England suggested that a large room be provided when ICU nurses want to speak to visitors and to direct the visitors of another family to the waiting room when they needed to examine and provide care to a different patient in the same room (Lee, et al., 2007:498).

Question 9: I believe that an open visiting policy offers more comfort to the patient

Of the participants 51.28% (n=20) of ICU experienced nurses and 41.03% (n=16) of ICU trained nurses agreed that an open visiting policy offers more comfort to the patient. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses in respect of an open visiting policy offering more comfort to the patient ($p=0.613$). Refer to table 4.47.

Table 4.47 An open visiting policy offers more comfort to the patient

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurse Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	20(51.28)	16(41.03)	36(46.15)	0.613
Neutral	8(20.51)	8(20.51)	16(20.15)	
Disagree	11(28.21)	15(38.46)	26(33.33)	

Both the ICU trained and the ICU experienced nurses in total (46.15%) agreed that an open visiting policy offers comfort to the patient. The reason for the ICU nurses agreeing is because they are aware that patients in the ICU are in an unfamiliar environment and besides an ICU psychosis that they can develop they feel isolated and lonely especially if they do not speak one of the official languages of the ICU nurses on duty. Interestingly in the original study completed in Flanders 57.8% of their ICU nurses disagreed that an open visiting policy brought more comfort to the patient (Bertie, et al., 2007: 1061). As stated before there are certain patients that do become more restless when there is a great deal of noise and external stimuli such as when an open visiting policy is implemented. ICU nurses would then need to use their discretion in allowing visitors to visit the patient (Sims & Miracle, 2006:178).

Question 10: An open visiting policy decreases family's anxiety

Of the participants 69.23% (n=27) of ICU trained nurses and 55.26% (n=21) of ICU experienced nurses agreed that an open visiting policy decreases family anxiety. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses in respect of an open visiting policy decreasing family anxiety ($p=0.194$). Refer to table 4.48.

Table 4.48 An open visiting policy decreases family's anxiety

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	21(55.26)	27(69.23)	48(62.34)	0.194
Neutral	7(18.42)	8(20.51)	15(19.48)	
Disagree	10(26.32)	4(10.26)	14(18.18)	

The ICU trained nurses and the ICU experienced nurses in total (62.34%) agreed that an open visiting policy decreases family anxiety. In Spain, 93.5% of their ICU nurses as well as the ICU nurses in Flanders (42.5%) where this original study took place agreed that an open visiting policy decreases family anxiety. According to the Critical Care Family Needs Inventory, critically ill patients' families have claimed that their needs for assurance, support, information, proximity and comfort are their major needs in an ICU setting when visiting their loved ones. With an open visiting policy these needs can be met and the critically ill patients' family anxiety decreased (Takman& Severinsson, 2005:622).

Question 11: I believe that open visiting exhausts family, because they feel forced to be with the patient

Of the participants 56.41% (n=22) of ICU experienced nurses and 45.00% (n=18) of ICU trained nurses disagreed that an open visiting policy exhausts family, because they feel forced to be with the patient. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses in respect of an open visiting policy exhausting family, because they feel forced to be with the patient (p=0.632). Refer to table 4.49.

Table 4.49 Open visiting exhausts family, because they feel forced to be with the patient

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	10(25.64)	13(32.50)	23(29.11)	0.632
Neutral	7(17.95)	9(22.50)	16(20.25)	
Disagree	22(56.41)	18(45.00)	40(50.63)	

Both groups of ICU nurses (50.63%) disagreed that open visiting exhausts family, because they feel forced to be with the patient. The reason that the ICU nurses disagreed is because most families of the patients in this study come from far and use public transport to get to the hospital and are therefore only able to visit at a time when they can get transport. Most visitors can only stay for a short time as they need to get transport back home which is also very unreliable. These relatives often cannot come at night as transport is a problem and it is not safe for them to travel from far to the hospital.

Question 12: I believe that an open visiting policy interferes with direct nursing care

Of the participants 77.50% (n=31) of ICU trained nurses and 48.72% (n=19) of ICU experienced nurses agreed that an open visiting policy interferes with direct nursing care. Although most ICU trained nurses and ICU experienced nurses agree, there is a statistically significant difference as more ICU trained nurses agreed than ICU experienced nurses that an open visiting policy interferes with direct nursing care (p=0.019). Refer to table 4.50.

Table 4.50 An open visiting policy interferes with direct nursing care

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	19(48.72)	31(77.50)	50(63.29)	0.019
Neutral	3(7.69)	2(5.00)	5(6.33)	
Disagree	17(43.59)	7(17.50)	24(30.38)	

More ICU trained nurses (77.50%) agreed than did ICU experienced nurses (48.72%) that an open visiting policy interferes with direct nursing care. The reason that these ICU trained nurses agreed with the above statement is because many are not familiar or confident enough to do procedures in front of visitors. The ICU experienced nurses may not be as aware as the ICU trained nurses that an open visiting policy interferes with direct nursing care as many have never worked in an ICU where an open visiting policy has been implemented. The majority of the ICU nurses in Spain (84.8%) agreed with the ICU trained nurses in this study that an open visiting policy interferes with direct nursing care, especially with procedures that cause pain to the patient, e.g. tracheal suctioning (Marco, et al., 2006:38). In the original study 73.5% of the Flanders ICU nurses also agreed that an open visiting policy interfered with direct nursing care (Bertie, et al., 2007: 1063).

Question 13: I believe that an open visiting policy makes nurses nervous, because they are afraid to err

Of the participants 75.00% (n=30) of ICU trained nurses and 58.97% (n=23) of ICU experienced nurses disagreed that an open visiting policy makes nurses nervous, because they are afraid of making errors. There is no significant difference between the beliefs of ICU trained nurses and ICU experienced nurses in respect of an open visiting policy making nurses nervous, because they are afraid of error (p=0.321). Refer to table 4.51.

Table 4.51 An open visiting policy makes nurses nervous, because they are afraid to err

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	10(25.64)	6(15.00)	16(20.25)	0.321
Neutral	6(15.38)	4(10.00)	10(12.66)	
Disagree	23(58.97)	30(75.00)	53(67.09)	

In this study both the ICU trained nurses as well as the experienced nurses disagreed that an open visiting policy makes nurses nervous, because they are afraid to make errors. This is not what has been seen in practice in the ICUs where this study was conducted as many of the ICU trained as well as experienced nurses are not confident in doing procedures in front of other ICU staff, let alone the patients' visitors. As ICU nurses become more familiar with visitors watching them perform certain

nursing tasks, their experience and confidence will improve and they will not be nervous and afraid that they will make errors in an open visiting policy unit. In the original study done in Flanders (48.0%) of their ICU nurses also disagreed that an open visiting policy makes nurses nervous, because they are afraid to make errors (Berti, et al., 2007:1062).

Question 14: I believe that an open visiting policy makes nurses feel controlled

Of the participants 57.50% (n=23) of ICU trained nurses and 28.95% (n=11) of ICU experienced nurses disagreed that an open visiting policy makes nurses feel controlled. There is a statistically significant difference between the beliefs of ICU trained nurses and ICU experienced nurses in respect of an open visiting policy making nurses feel controlled (p=0.021). Refer to table 4.52.

Table 4.52 An open visiting policy makes nurses feel controlled

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	14(36.84)	12(30.00)	26(33.33)	0.021
Neutral	13(34.21)	5(12.50)	18(23.08)	
Disagree	11(28.95)	23(57.50)	34(43.59)	

Significantly more ICU trained nurses (57.50%) disagreed than ICU experienced nurses (28.95%) in this study with regards to an open visiting policy making nurses feel controlled (p=0.021). The ICU trained nurses appear to feel more comfortable with an open visiting policy than the ICU experienced nurses, who may be intimidated by family members questioning the treatment their loved one is receiving. Some patients' visitors may interfere with the care and treatment the nurses are rendering to the patient and thus a conflict situation may occur. The patient may then not receive any or sub optimal care due to this interference from the family. In the study in Flanders, 41.1% of their ICU nurses disagreed that an open visiting policy makes nurses feel controlled. ICU nurses can invite the family to assist the patient with basic care such as feeding or offering a drink, which may in turn make the family member less controlling (Berti, et al., 2007:1063)

Question 15: I believe that an open visiting policy interferes with the patient's daily nursing care process

Of the participants 67.50% (n=27) of ICU trained nurses and 56.41% (n=22) of ICU experienced nurses agreed that an open visiting policy interferes with the planning of the patient's daily nursing care process. There is no significant difference between the beliefs of ICU trained nurses and ICU experienced nurses with respect to an open visiting policy interfering with the planning of the patient's daily nursing care process (p=0.452). Refer to table 4.53.

Table 4.53 An open visiting policy interferes with the patient's daily nursing/medical care process

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	22(56.41)	27(67.50)	49(62.03)	0.452
Neutral	6(15.38)	3(7.50)	9(11.39)	
Disagree	11(28.21)	10(25.00)	21(26.58)	

Both the ICU trained nurses and ICU experienced nurses (62.03%) agreed that an open visiting policy interferes with the patient's daily nursing/medical care. The reason why they agreed with this statement could be because there is a set routine which is followed each day, in which the patients receive their nursing care and when invasive procedures can be performed on the patients. With an open visiting policy nursing care will be delayed and procedures may be interrupted as family members are present at the patients' bedside. In Marmara 75.7% of their ICU nurses agreed that an open visiting policy affected their nursing tasks with 34.3% claiming it delayed working and 19.5% claimed open visiting interfered with rendering patient care (Sabuncu, et al., 2001:89). In the Flanders study 75.2% of their nurses believed that an open visiting policy interfered with the planning of the patients' daily nursing process (Bertie, et al., 2009:1062).

Question 16: I believe that an open visiting policy makes nurses to spend more time providing information to the family

Of the participants 67.50% (n=27) of ICU trained nurses and 46.15 % (n=18) of experienced nurses agreed that an open visiting policy makes nurses spend too much time providing information to the family. There is no significant difference between the beliefs of ICU trained nurses and ICU experienced nurses with respect to an open visiting policy making nurses spend more time in providing information to the family (p=0.169). Refer to table 4.54.

Table 4.54 An open visiting policy makes nurses spend more time providing information to the family

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	18(46.15)	27(67.50)	45(56.96)	0.169
Neutral	7(17.95)	5(12.50)	12(15.19)	
Disagree	14(35.90)	8(20.00)	22(27.85)	

A total of 56.96% of the nurses agreed that an open visiting policy makes nurses spend too much time providing information to the family. In Marmara 63.3% of their ICU nurses believed that visits should include time for information. In the ICUs where this study took place visitors often want to speak to the ICU doctor or the ICU nurses in order to find out about the patient's prognosis, what care is being rendered to the patient and how long the patient will still be in the ICU. These are a number of questions that the family needs answered and so much of time is needed. Many visitors are very scared to talk to the patient because of all the tubes and equipment attached to them and become very frightened when the alarms sound. ICU nurses have therefore to spend a great deal of time reassuring and educating the visitors about the patients' condition and the ICU environment. In the Flanders study 82.3% of the ICU nurses agreed that an open visiting policy makes nurses spend more time providing information to the family. Interestingly of the ICU nurses in Spain 82.6% of them disagreed with an open visiting policy since nurses spent more time giving information to family and hence less time with the patient (Marco, et al., 2006:38).

Question 17: I believe that an open visiting policy increases the risk of errors

Of the participants 41.03% (n=16) of ICU experienced nurses and 57.50 % (n=23) of ICU trained nurses disagreed that an open visiting policy increases the risk of error. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses with respect to an open visiting policy increasing the risk of error ($p=0.329$). Refer to table 4.55.

Table 4.55 An open visiting policy increases the risk of errors

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	16(41.03)	12(30.00)	28(35.44)	0.329
Neutral	7(17.95)	5(12.50)	12(15.19)	
Disagree	16(41.03)	23(57.50)	39(49.37)	

The total number of ICU trained nurses and ICU experienced nurses (49.37%) disagreed that an open visiting policy increases the risk of error. They appeared to be comfortable and they do not feel nervous with an open visiting policy and they do not believe that an open visiting policy would increase the risk of error. The reason for this could be that most of the ICUs in this study have a 1:1 patient/ nurse ratio where the ICU nurse does have more time to spend as she is only responsible for one patient. 39.2% of the ICU nurses in Flanders disagreed with the ICU nurses from this study that an open visiting policy increases the risk of error.

Question 18: I believe that visitation is a helpful support for the caregivers

Of the participants 62.50% (n=25) of ICU trained nurses and 60.53% (n=23) of ICU experienced nurses agreed that visitation is a helpful support for the caregivers. There is no significant difference between the beliefs of ICU trained nurses and ICU experienced nurses with respect to visitation being a helpful support for the caregivers ($p=0.946$). Refer to table 4.56.

Table 4.56 Visitation is a helpful support for the caregivers

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	23(60.53)	25(62.50)	48(61.54)	0.946
Neutral	4(10.53)	5(12.50)	9(11.54)	
Disagree	11(28.95)	10(25.00)	21(26.92)	

Both the ICU trained and the ICU experienced nurses (61.54%) agreed that visitation is a helpful support for the caregivers. ICU nurses who participated in this study have been able to obtain more information about the ICU patient from the visitors with regards to their life style, co-morbid illnesses and what type of support system the patient has outside of the hospital. This has been useful in understanding the patient's present illness and has helped in deciding what additional care providers are needed to assist the patient before discharge. Family members were possible have been encouraged to help the ICU patient drink from a straw or feed the patient with the permission of the ICU nurses. The above statement can be linked to the belief that open visiting produces more valuable information about the patient and that an open visiting policy will enable the family to help the ICU nurses with basic nursing care. In a study in Spain 82.6% of their ICU nurses agreed that valuable information is provided about the patient at visitation but 68.9% of their ICU nurses disagreed that families help in the basic care of the ICU patient (Marco, et al., 2006:38).

Question 19: I believe that an open visiting policy contributes to the improvement of patient-centred care

Of the participants 56.41% (n=22) of ICU experienced nurses and 48.72 % (n=19) of ICU trained nurses agreed that an open visiting policy contributes to the improvement of patient-centred care. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses with respect to an open visiting policy contributing to the improvement of patient-centred care (p=0.347). Refer to table 4.57.

Table 4.57 An open visiting policy contributes to the improvement of patient-centred care

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	22(56.41)	19(48.72)	41(52.56)	0.347
Neutral	8(20.51)	5(12.82)	13(16.67)	
Disagree	9(23.08)	15(38.46)	24(30.77)	

The participating ICU trained and experienced ICU nurses (52.26%) agreed that an open visiting policy contributes to the improvement of patient- centered care. There appears to be some contradiction in terms of implementing an open visiting policy. When these nurses questioned about implementing an open visiting policy in their ICU unit the majority of them disagreed. In the study in Flanders their ICU nurses (47.1%) disagreed that an open visiting policy contributes to the improvement of patient centred care. In the literature ICU nurses have claimed that an open visiting policy has created a greater physiological and a psychological burden for them in dealing with the visitors' needs as well as the patients' need. ICU nurses in Spain have commented that they did feel qualified to interact with the family in open visiting (Marco, et al., 2006:38).

Question 20: I believe that an open visiting policy will decrease the safety of the staff and patients

Of the participants 47.50% (n=19) of ICU trained nurses and 43.59% (n=17) of ICU experienced nurses agreed that an open visiting policy will decrease the safety of the staff and patients. There is no significant difference between the beliefs of ICU trained nurses and ICU experienced nurses with respect to an open visiting policy decreasing the safety of staff and patients ($p=0.640$). Refer to table 4.58.

Table 4.58 An open visiting policy will decrease the safety of the staff and patients

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	17(43.59)	19(47.50)	36(45.57)	0.640
Neutral	6(15.38)	3(7.50)	9(11.39)	
Disagree	16(41.03)	17(42.50)	33(41.77)	

Both groups of nurses in total (45.57%) agreed that an open visiting policy will decrease the safety of the ICU staff and the ICU patients, this as a result of to the high crime rate and assaults that have already occurred at the hospital in question. Since these incidences have occurred security has been improved by having security personnel outside and between two wards. These security personnel have helped improved the safety of the ICU clinicians and patients as well as helping deal with unruly visitors causing a disturbance in the ICU setting.

Question 21: I believe that an open visiting policy will allow for all cultural factors to be taken into consideration

Of the participants 64.50% (n=25) of ICU experienced nurses and 52.50% (n=21) of ICU trained nurses agree that an open visiting policy will allow for all cultural factors to be taken into consideration. There is no significant difference between the beliefs of ICU experienced nurses and ICU trained nurses with respect to an open visiting policy allowing for all cultural factors to be taken into consideration (p=0.552). Refer to table 4.59.

Table 4.59 An open visiting policy will allow for all cultural factors to be taken into consideration

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	25(64.50)	21(52.50)	46(58.23)	0.552
Neutral	5(12.82)	5(12.50)	10(12.66)	
Disagree	9(23.08)	14(35.00)	23(29.11)	

Both the ICU trained and the ICU experienced nurses (58.23%) agreed that an open visiting policy will allow for all cultural factors to be taking into consideration. As these specific ICUs have patients from a wide diversity of cultures the safety, dignity and respect for all patients' cultures need be maintained and this is echoed in the nursing creed that states that no discrimination is acceptable with respect to a patient's race, religion or social class.

4.5.9 Attitudes of the ICU nursing clinicians (ICU experienced and trained Nurses) section 5

Inferential statistics were used to analyse the attitudes of the ICU trained nurses and experienced nurses towards visitation of the patient, family and ICU care. The results are presented in tables illustrating the various responses made by the ICU nurses. The individual as well as the total percentages and frequencies of each response from the ICU nurses are represented in the tables with the last column showing the statistically significant data, using Fischer's Exact Test. The question numbers refer to the questions in Section 5 of the questionnaire in Appendix B.

Question 22: I think that everybody is allowed to visit, if it is approved by the patient

Of the participants 74.36% (n=29) of ICU experienced nurses and 72.50% (n= 29) of ICU trained nurses agreed that everybody should be allowed to visit, if approved by the patient. There is no significant difference between the attitudes of ICU experienced nurses and ICU trained nurses with respect to everybody being allowed to visit if it is approved by the patient ($p=0.719$). Refer to table 4.60.

Table 4.60 Everybody is allowed to visit, if it is approved by the patient

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	29(74.36)	29(72.50)	58(73.42)	0.719
Neutral	1(2.56)	3(7.50)	4(5.06)	
Disagree	9(23.08)	8(20.00)	17(21.520)	

Both the ICU trained as well as the ICU experienced nurses (73.42%) agreed that everybody should be allowed to visit if it is approved by the patient. The ICU nurses appear to be comfortable with the patient having their own individualised visiting schedule as suggested by Berwick & Kotagal, 2004:736). In the study in Flanders 70.4% of their ICU nurses disagreed to allowing everybody to visit even if approved by the patient (Berti, et al., 2007:1063).

Question 23: I think that the number of visitors in a day (24 hrs) should NOT be limited

Of the participants 61.54% (n=24) of ICU experienced nurses and 57.50% (n=23) of ICU trained nurses disagreed that the number of visitors in a day (24hrs) should not be limited. There is no significant difference between the attitudes of ICU experienced nurses and ICU trained nurses with respect to the number of visitors in a day (24hrs) not being limited ($p=0.064$). Refer to table 4.61.

Table 4.61 The number of visitors in a day (24 hrs) should NOT be limited

Response	ICU experienced Nurses Frequency (n) Percentage (%)	ICU trained Nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	9(23.08)	16(40.00)	25(31.65)	0.064
Neutral	6(15.38)	1(2.50)	7(8.86)	
Disagree	24(61.54)	23(57.50)	47(59.49)	

The ICU trained and the ICU experienced nurses (59.49%) disagreed that the number of visitors in a day (24hrs) should not be limited. Firstly the structure of ICUs would not be able to accommodate too many relatives at each bedside as space is a major problem. The noise and external stimuli may make certain patients agitated to the extent that their condition may be compromised. The burden of dealing with the visitor's physiological and psychological needs makes the ICU setting very stressful for ICU experienced and trained nurses who are understaffed and stressed most days. In the Flanders study the ICU nurses there also disagreed that the number of visitors in a day (24 hrs) should not be limited (Bertie, et al., 2007:1064) There conservative attitudes may be attributed to the environmental and practical aspects such as guaranteeing the privacy of other patients and the number of patients per ICU nurse. (Berti, et al., 2007:1064)

Question 25: I think that the length of a visit should not be limited

Of the participants 95.00% (n=38) of ICU trained nurses and 73.68% (n=28) of ICU experienced nurses disagreed that the length of a visit should not be limited. There is a significant difference between the attitudes of ICU trained nurses and ICU experienced nurses as more ICU trained disagreed than ICU experienced nurses that the length of a visit should not be limited ($p=0.012$). Refer to table 4.62.

Table 4.62 The length of a visit should not be limited

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	8(21.05)	1(2.50)	9(11.54)	0.012
Neutral	2(5.26)	1(2.50)	3(3.85)	
Disagree	28(73.68)	38(95.00)	66(84.62)	

Significantly more ICU trained nurses (95.00%) disagreed that the length of a visit should not be limited ($p=0.012$). In the original study done in Flanders 88.9% of their ICU nurses also disagreed with the length of a visit not being limited (Berti, et al., 2007;1064). Interestingly in Marmara 49.7% of their ICU nurses stated that the duration of a visit should be limited to five minutes whereas 23.1% stated that that the duration should be different for each patient (Sabuncu, et al., 2001:89).

Question 27: I think that the number of people who are visiting the patient at the SAME TIME should NOT be limited.

Of the participants 92.50% (n=31) of ICU trained nurses and 79.49 % (n=31) of ICU experienced nurses disagreed that the number of people visiting the patient at the same time should not be limited. There is no significant difference between the attitudes of the ICU trained nurses and the ICU experienced nurses ($p=0.120$).Refer to table 4.63.

Table 4.63 The number of people visiting the patient at the SAME TIME should NOT be limited

Response	ICU experienced Nurses Frequency (n) Percentage (%)	ICU trained Nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	7(17.95)	2(5.00)	9(11.39)	0.120
Neutral	1(2.56)	1(2.50)	2(2.53)	
Disagree	31(79.49)	31(92.50)	37(86.08)	

In this study both the ICU experienced nurses and the ICU trained nurses (86.08%) disagreed that the number of people visiting the patient at the same time should not be limited. One of the reasons why the ICU experienced and trained nurses disagreed with this statement could be that the family members form a barrier around the patient and when an emergency occurs the ICU nurses are not able to reach the patient timeously and often trip over seated visitors at the patient's bedside. In the original study in Flanders, 96.9% of the ICU nurses disagreed that the number of people visiting the patient at the SAME TIME should NOT be limited (Berti, et al.,1063).

Question 28: I think that an open visiting policy should be adopted in our unit

Of the participants 80.00% (n=32) of ICU experienced nurses and 64.38% (n=47) ICU trained nurses disagreed that an open visiting policy should be carried out in their unit. There is no significant difference between the attitudes of ICU experienced nurses and ICU trained nurses in respect of an open visiting policy being carried out in their units (p=0.264). Refer to table 4.64.

Table 4.64 An open visiting policy should be adopted in our unit

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	11(28.21)	6(15.00)	17(21.52)	0.264
Neutral	3(7.69)	2(5.00)	5(6.33)	
Disagree	25(64.10)	32(80.00)	57(72.15)	

As indicated both the ICU trained and experienced nurses disagreed that an open visiting policy should be adopted in their unit. Even though these ICU nurses agreed that an open visiting policy would increase patient- centered care they still had a negative attitude towards an open visiting policy. The reason for this negativity could be due to the old ICU tradition and culture whereby a restrictive ICU policy decreases the incidence of infections being transmitted to the patients. In the original study 75.3% of their ICU nurses also disagreed that an open visiting policy should be adopted in their unit (Berti, et al., 2007:1062). Interestingly in Spain researchers found a more positive attitude towards open visiting among nurses with children and asked them why they felt this way (Marco et al., 2006:40). Their response was that since they had a new family they were more emotionally involved with families in crisis (Marco et al., 2006:40).

Question 29: I think that strict visiting hours must be adapted when the family has practical problems adhering to the policy

Of the participants 67.50% (n=27) of ICU trained nurses and 41.03 % (n=16) of ICU experienced nurses agreed that strict visiting hours must be adapted when the family has practical problems adhering to the policy. There is a significant difference between the attitudes of ICU trained nurses and ICU experienced nurses as more ICU trained nurses agreed to strict visiting hours being adapted when the family has practical problems adhering to the policy ($p=0.014$). Refer to table 4.65

Table 4.65 Strict visiting hours must be adapted when the family has practical problems adhering to the policy.

Response	ICU experienced Nurses Frequency (n) Percentage (%)	ICU trained Nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	16(41.03)	27(67.50)	43(54.43)	0.014
Neutral	14(35.90)	4(10.00)	18(22.78)	
Disagree	9(23.08)	9(22.50)	18(22.78)	

Significantly more ICU trained nurses (67.50%) agreed that strict visiting hours must be adapted when the family has practical problems adhering to the policy ($p= 0.014$). There was evidence in the

literature that a relationship between the level of the nurse's training and experience and their attitude towards visitors do exist (Hopping et al., 1992:10).

Question 30: I think that strict visiting hours must be adapted when the patient has emotional needs

Of the participants 67.50% (n=27) of ICU trained nurses and 53.85% (n=21) of ICU experienced nurses agree that strict visiting hours must be adapted when the patient has emotional needs. There is a significant difference between the attitudes of ICU trained nurses and ICU experienced nurses as more ICU trained nurses agreed than experienced nurses did to strict visiting hours being adapted when the patient has emotional needs ($p=0.023$). Refer to table 4.66.

Table 4.66 Strict visiting hours must be adapted when the patient has emotional needs

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	21(53.85)	27(67.50)	48(60.76)	0.023
Neutral	9(23.08)	1(2.50)	10(12.66)	
Disagree	9(23.08)	12(30.00)	21(26.58)	

Significantly more ICU trained nurses (67.60%) agreed that strict visiting hours must be adapted when the patient has emotional needs. In the study in Flanders, 70.3% of ICU nurses also agreed with the ICU trained nurses in this study that strict visiting hours need to be adapted when the patient has emotional needs (Berti, 2007:1062). In Belgium the ICU nurses stated that 75.6% of their ICUs adopted the visiting hours if the patient had emotional needs (Vandijck, et al., 2007:140). In another study conducted in Sweden patients stated that by having a lack of contact with their nearest meant the absence of love, while other patients claimed that the presence of visitors at their bedside in the ICU meant survival and life to them (Bergbom & Askwall, 2000:390).

Question 31: I think that when the patient is capable, he/she should have control over when, for how long and how many visitors he/she can have

Of the participants 53.85% (n=21) of ICU trained nurses and 34.21% (n=13) of ICU experienced nurses disagreed that when the patient is capable, he/she should have control over when, for how long and how many visitors he/she can have. There is no significant difference between the attitudes of ICU trained nurses and ICU experienced nurses with respect to the patient when capable controlling, when, for how long and how many visitors he/she can have ($p=0.061$). Refer to table 4.67.

Table 4.67 When the patient is capable, he/she should have control in when, how long and how many visitors he/she can have

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	17(44.74)	16(41.03)	33(42.86)	0.061
Neutral	8(21.05)	2(5.13)	10(12.99)	
Disagree	13(34.21)	21(53.85)	34(44.16)	

Both the ICU trained nurses as well as the ICU experienced nurses (44.16%) disagreed that if the patient is capable, he/she should have control of when, how long and how many visitors he/she can have. This contradicts replies to the previous question where the ICU experienced and trained nurses agreed that everybody should be allowed to visit if approved by the patient. The researcher has had an incident where one patient was allowed to control who visits him but a lot of disruption occurred in the ICU setting with visitors coming and going as they wish and other patient's visitors complained about favouritism. The study, in the Flanders revealed that 70.4% of their ICU nurses disagreed with a capable patient controlling his/her visiting schedule (Bertie, et al., 2007:1063).

Question 32: I think that the visiting policy must be adapted to the culture of the individual patient

Of the participants 57.50% (n=23) of ICU trained nurses and 38.89% (n=14) of ICU experienced nurses disagreed that the visiting policy must be adapted to the culture of the individual patient. There

is no significant difference between the attitudes of ICU trained nurses and ICU experienced nurses with respect to the visiting policy being adapted to the culture of the individual patient ($p=0.183$). Refer to table 4.68.

Table 4.68 The visiting policy must be adapted to the culture of the individual patient

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	18(50.00)	12(30.00)	30(39.47)	0.183
Neutral	4(11.11)	5(12.50)	9(11.84)	
Disagree	14(38.89)	23(57.50)	37(48.68)	

Both the ICU trained nurses as well as the ICU experienced nurses (48.68%) in total disagreed that the visiting policy must be adapted to the culture of the individual patient. There are many different cultures that the patients belong to where this study took place. The ICU trained and experienced nurses in this study according to the researchers experiences disagreed because of the limited space in the ICUs were overcrowding and interruption of the daily activities in the ICU would occur if the visiting policy was adapted to the culture of the individual patients This has also been the finding in a study done in New England in America where space and crowding was a barrier according to their ICU nurses thus the visiting policies were not adapted to the culture of the individual patients there as well (Lee, et al., 2007:500). In the study in Flanders, 71.8% of their ICU nurses disagreed as well that the visiting policy must be adapted to the culture of the individual patient (Berti, 2007: 1063).

Question 33: I think that a strict starting hour is important, but the length of a visit can be flexible

Of the participants 47.37% ($n=18$) of ICU experienced nurses and 45.00 % ($n=18$) of ICU trained nurses disagreed that a strict starting hour is important, but the length of a visit can be flexible. There is no significant difference between the attitudes of ICU experienced nurses and ICU trained nurses with respect to a strict starting hour being important, but the length of a visit being flexible ($p=0.947$). Refer to table 4.69.

Table 4.69 A strict starting hour is important, but the length of a visit can be flexible

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	16(42.11)	18(45.00)	34(43.59)	0.947
Neutral	4(10.53)	4(10.00)	8(10.26)	
Disagree	18(47.37)	18(45.00)	36(46.15)	

Both the ICU trained and the ICU experienced nurses in total (46.15%) disagreed that a strict starting hour is important, but the length of a visit can be flexible. Again the ICU nurses disagreed with the above statement because any increase in the length of a visit would delay the care they need to render to the ICU patient before their shift ends. In Flanders where the original study was done, 72.4% of their ICU nurses also disagreed with a strict starting hour but the length of a visit being flexible (Bertie, et al., 2007:1063).

Question 34: I think that the visiting policy must be flexible during the first 24hrs of hospitalization

Of the participants 65.00% (n=26) of ICU trained nurses and 62.16% (n=23) of ICU experienced nurses agreed that the visiting policy must be flexible during the first 24hrs of hospitalization. There is no significant difference between the attitudes of ICU experienced nurses and ICU trained nurses in respect of the visiting policy being flexible during the first 24hrs of hospitalisation (p=1.000). Refer to table 4.70.

Table 4.70 The visiting policy must be flexible during the first 24 hrs of hospitalisation

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	23(62.16)	26(65.00)	49(63.64)	1.000
Neutral	4(10.81)	4(10.00)	8(10.39)	
Disagree	10(23.03)	10(25.00)	20(25.97)	

There was agreement between both the ICU experienced and trained nurses that the visiting policy must be flexible during the first 24 hrs of hospitalisation. The Flanders study showed that their ICU nurses (57.3%) also agreed that a visiting policy must be flexible during the first 24 hrs of the hospitalization (Bertie, et al., 2007:1063.). The reason why the ICU nurses in this study agreed with the above statement is because often the patient has major emotional needs in the first 24 hrs and is often haemodynamically unstable at the same time. Having the family visit, talk or hold the patient's hand in the first 24 hrs of admission will allow for the physiological needs and psychological needs of the patient and the family to be met.

Question 35: I think that the visiting policy must be adapted when the patient is dying

Of the participants 88.89% (n=22) of ICU experienced nurses and 72.50% (n=29) of ICU trained nurses agreed that the visiting policy must be adapted when the patient is dying. There is no significant difference between the attitudes of ICU experienced nurses and ICU trained nurses with respect to the visiting policy being adapted when the patient is dying ($p=0.125$) as per table 4.71.

Table 4.71 The visiting policy must be adapted when the patient is dying

Response	ICU experienced nurses Frequency (n) Percentage (%)	ICU trained nurses Frequency (n) Percentage (%)	Total Frequency (n) Percentage (%)	Fischer's Exact Test (p)
Agree	22(88.89)	29(72.50)	61(80.26)	0.125
Neutral	2(5.56)	2(5.00)	4(5.26)	
Disagree	2(5.56)	9(22.50)	11(14.47)	

As shown both the ICU trained nurses as well as the ICU experienced nurses agreed (80.26%) that the visiting policy must be adapted when the patient is dying. In Belgium, 97.6% of their ICUs had their visiting policies adapted when the patient was dying (Vandijck, et al., 2010:140). Although society today does not like to see people die, many family members and ICU experienced and trained nurses accompany the critically ill patient at their time of death. An open visiting policy offers the ICU clinicians the possibility of providing care and attention even when the therapeutic limit has been reached and death is approaching (Giannini, 2007:305)

Question 24: I think that in a day (24 hrs) the number of visitors should be limited to ... persons

A total of 61 participants answered this question. Thirty of the participants were ICU trained nurses who stated that the number of visitors should be limited to 5.20 persons in a day compared with thirty one of the participants who were ICU experienced nurses who stated that the number of visitors should be limited to 5.10 persons in a day. There was no statistically significant difference between the ICU experienced and trained nurses as the t-test was 0.9099 with a confidence interval of 95%. Refer to table 4.72.

Table 4.72 In a day (24hrs) the number of visitors should be limited to ... persons

Total number of participants N=61 Frequency is(n) Percentage is (%)	Mean	Standard Deviation	T- Test
ICU Trained Nurses n= 30 (48.18%)	5.20	3.54	0.9099
ICU Experienced Nurses n=31 (50.82%)	5.10	3.55	

The ICU trained and ICU experienced nurses agreed to limit the number of visitors in a day to between 5.1 and 5.2 persons. The reason why both sets of nurses would restrict the numbers of persons a day visiting the patient is because of the physical structure of the unit and the burden visitors place on ICU nurses. They argue that the patient needs to rest adequately for recovery to occur without any complications. In Italy ICU nurses stated that between (4.1- 1.6) visitors should be allowed in their ICUs during the day (Biancofiore, et al., 2010:97).

Question 26: I think that only.... persons can visit the patients at the same time

Of the 61 participants that answered this question, 28 were ICU experienced nurses who recommended that 1.3 persons should be allowed to visit the person at the same time. The other participants were 33

ICU trained nurses who recommended 1.12 persons being allowed to visit the patient at the same time. There is no statistically significant difference between the ICU experienced and trained nurses as the t-test was 1.2479 with a confidence interval of 95%. Refer to table 4.73.

Table 4.73 That only ... persons can visit the patient at the same time

Total number of participants N=61 Frequency is(n) Percentage is (%)	Mean	Standard Deviation	T- Test
ICU trained nurses n= 28 (45.91%)	1.3	.7800	1.2479
ICU experienced nurses n=33 (54.09%)	1.12	.6963	

In this study the ICU trained nurses and the ICU experienced nurses agreed on between (1.3-1.12) persons being allowed to visit the ICU patient at the same time. In the Italian study conducted in Florence their ICU nurses agreed that (1.6 – 0.5) persons be allowed to visit the patient at the same time (Biancofiore, et al., 2010: 197). The reason for this is so that the nurses are able to render the nursing care the patient needs without tripping over people.

4.5.10 A summary of the results of section 4 and section 5 (comparing ICU experienced and trained nurses)

The inferential results of section 4 and section 5 of the restructured BAVIQ questionnaire have been simplified in three horizontal bar graphs. The y- axes on the horizontal bar graphs refer to the specific question in the questionnaire with the various responses by the ICU experienced and trained nurses to each question. The x- axis refers to the total percentage of each response from the ICU clinicians.

The different colours in the graphs refer to the percentage of each response made by the participants. Blue refers to the percentage of the participants that agreed with the question. Red refers to the participants that neither agreed nor disagreed with the question while green refers to the percentage of participants that disagreed with the question in the questionnaire (Figure 4.21).

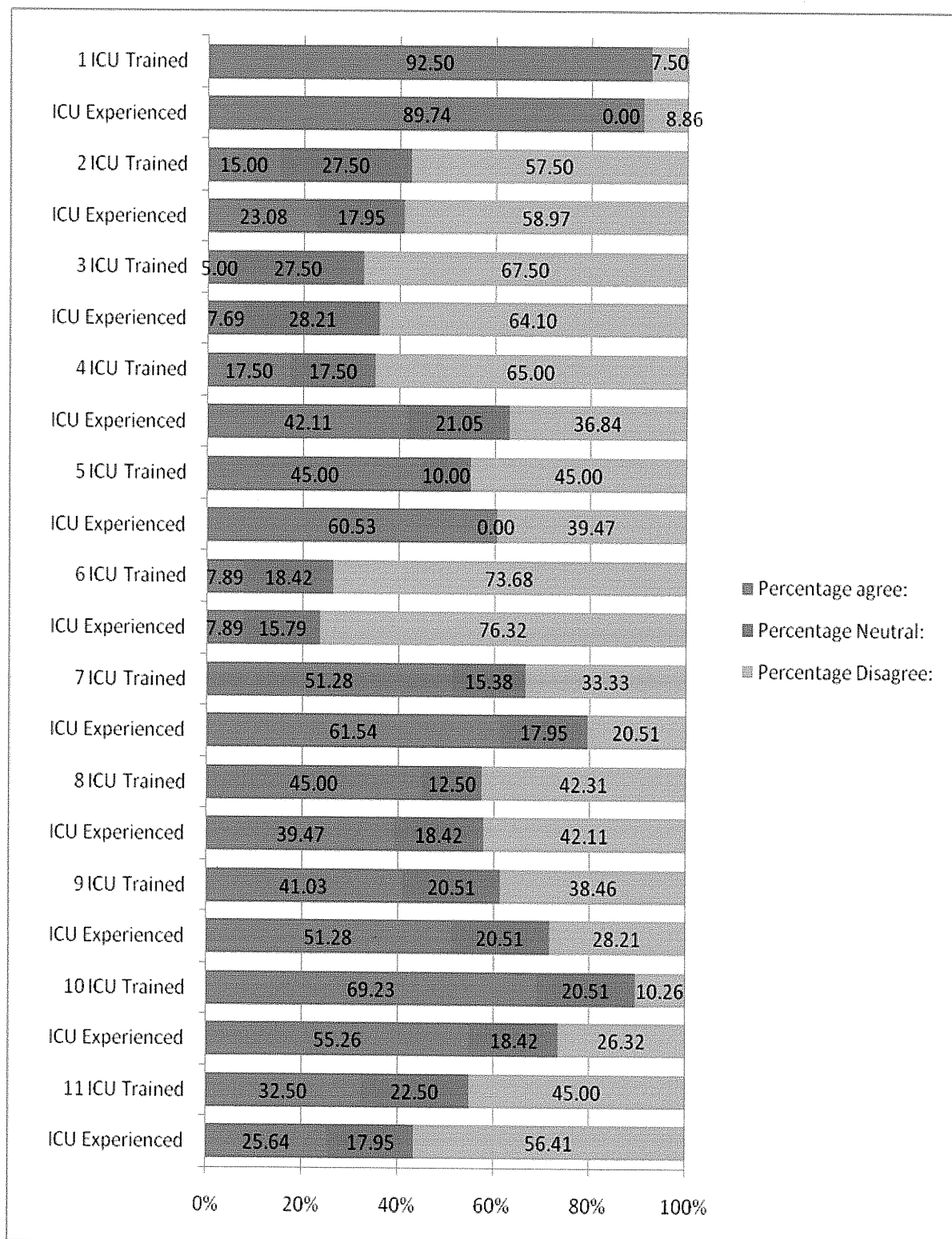


Figure: 4.21: A summary of the results of section 4 comparing ICU experienced and trained nurses

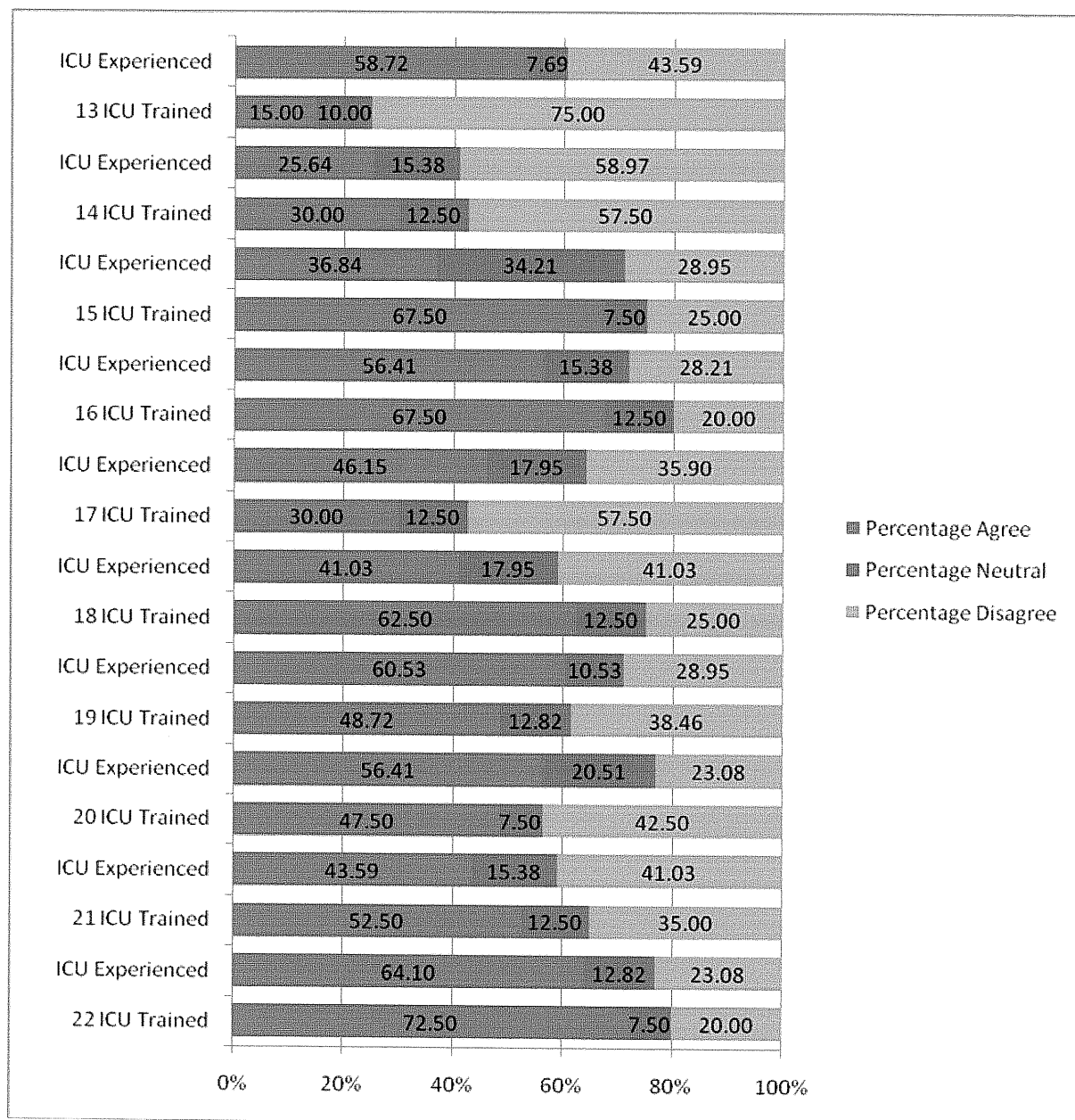


Figure: 4.21 (cont): A summary of the results of section 4 comparing ICU experienced and trained nurses

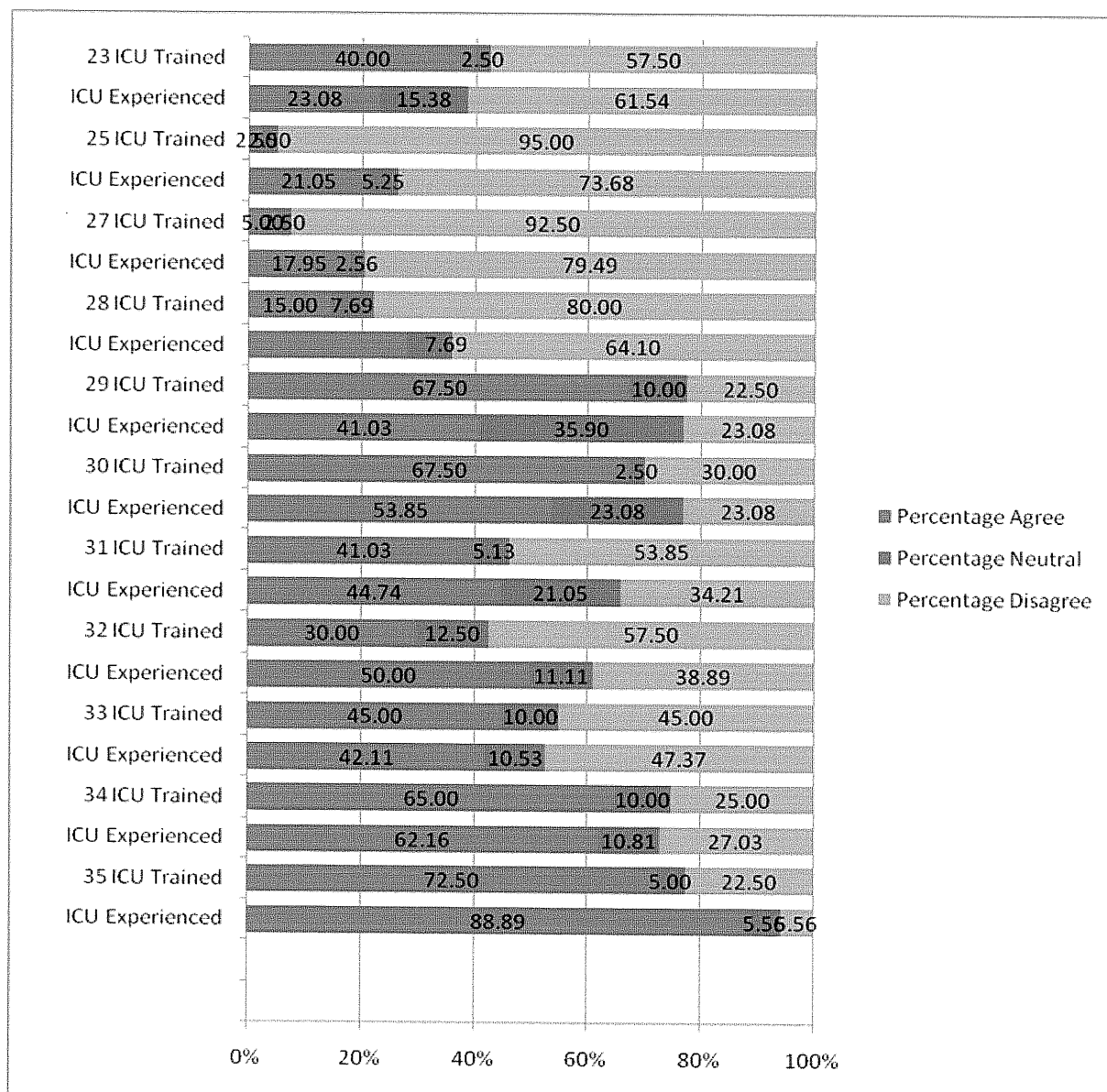


Figure 4.21 (cont): A summary of the results of section 5 comparing ICU experienced and trained nurses

4.5.11 A summary of the beliefs and attitudes of ICU nurses (experienced and trained) Fisher's Exact Test (p)

A summary of Fisher's Exact Test (p) of the ICU experienced and trained nurses' beliefs and attitudes are tabulated in a table with the questions on the left hand side of the table and Fishers Exact Test (p) on the right hand side. Answers to questions which showed a significant difference between the ICU experienced to nurses and the ICU trained nurses are highlighted in red. Refer to table 4.74.

Table 4.74 A summary of the beliefs and attitudes of ICU nurses (experienced and trained) Fisher's Exact Test (p).

QUESTIONS ON BELIEFS	FISCHER'S EXACT TEST (p)
1. Visitation has a beneficial effect on the patient.	0.128
2. Visitation hinders the patient's rest	0.730
3. Visitation causes physiological stress for the patient.	0.392
4. Visitation creates adverse haemodynamic responses in patients	0.001
5. An open visiting policy is important for the patient's recovery	0.000
6. Visitation causes psychological stress for the patient	1.000
7. Visitors can help the patient interpret information	0.273
8. Open visitation violates the patient's privacy and confidentiality	0.288
9. An open visiting policy offers more comfort to the patient	0.257
10. An open visiting policy decreases family anxiety	0.584
11. An open visiting policy exhausts family	0.541
12. An open visiting policy interferes with direct nursing care	0.010
13. An open visiting policy makes nurses afraid to err.	0.000
14. An open visiting policy makes nurses feel controlled	0.591
15. An open visiting policy interferes with the patient's daily nursing care process	0.238
16. An open visiting policy makes nurses spend more time providing information to the family	0.060
17. An open visiting policy increases the risk of error	0.002
18. Visitation is a helpful support for the caregivers	0.036
19. An open visiting policy contributes to the improvement of patient centred care	0.383
20. An open visiting policy will decrease the safety of staff and patients	0.103
21. An open visiting policy will allow for all cultural factors to be considered	0.142

Table 4.74 (cont.): A summary of the beliefs and attitudes of ICU nurses (experienced and trained) Fisher's Exact Test (p).

QUESTIONS ON ATTITUDES	FISCHER'S EXACT TEST (p)
22. Everybody should be allowed to visit if approved by the patient	0.157
23. The number of visitors in a day should not be limited	0.045
25. The length of a visit should not be limited	0.234
27. The number of visitors at the same time should not be limited	0.003
28. An open visiting policy should be adopted in our unit	0.485
29. Strict visiting hours must be adapted if families have practical problems	0.003
30. Strict visiting hours must be adapted to patient's emotional needs	0.195
31. Capable patients should control number and duration of visits	0.672
32. Visiting policy must be adapted to the culture of the patient	0.082
33. Strict starting hour is important but the length of stay can be flexible	0.177
34. Visiting policy can be flexible during the first 24 hours of hospitalization	0.035
35. Visiting policy must be adapted when the patient is dying	0.000

Table 4.74 (cont.) A summary of the beliefs attitudes of ICU nurses (experienced and trained) T Test

QUESTIONS ON ATTITUDES	T-TEST
24. In a day (24 hrs) the number of visitors should be limited to ... persons	0.909
26. I think that only ...persons can visit the patients at the same time	1.247

CHAPTER FIVE

SUMMARY, LIMITATIONS, RECOMMENDATIONS

AND CONCLUSIONS

5.1 INTRODUCTION

In this final chapter of the study a summary of the whole study will be presented including various conclusions that have been deduced from the research findings. This is followed by a discussion on the limitations of the study. This chapter will also include recommendations (obtained from the results of this study) on how to move towards a more flexible visiting policy.

5.2 SUMMARY OF THE STUDY

The purpose of this study was to determine the beliefs and attitudes of ICU clinicians regarding visiting, visiting hours and open visiting in ICUs with a view to recommending changes to existing visiting policies in the best interests of patient care.

In order to fulfil the purpose of this two phase study four objectives were set which were achieved.

5.2.1 Phase one

Objective one was to validate an existing questionnaire BAVIQ exploring ICU doctor's and ICU nurses' views on visiting, visiting hours and open visiting for use in the South African setting.

Six ICU purposive panel members were invited to participate in the validation of the BAVIQ questionnaire (Appendix D) to ensure that the questionnaire would be suitable for the South African setting. It was explained in an information letter how to validate the BAVIQ questionnaire as a whole and how to evaluate each question of the questionnaire. The panel was asked to add any questions that they felt needed to be included in the questionnaire from a South African perspective. Any new questions that the panel members wanted to add to the questionnaire were discussed with each member individual. If any questions were not suited for the South African setting or difficult to understand the question was either rephrased or deleted from the questionnaire. Five out of the six panel members had to agree on each question in order for it to remain in the questionnaire or for new or altered questions to be included.

The question that was removed from the BAVIQ questionnaire was question 16 which referred to the belief that an open visiting policy interferes with humour between nurses. The question that was added to the questionnaire was question 22. on whether an open visiting policy would allow cultural factors to be taken into consideration.

The questions were rephrased so that all the participants not having English as a first language would be able to understand and answer adequately (Refer to table 5.1). The restructured questionnaire consisted of 22 questions referring to beliefs and 14 questions referring to attitudes regarding visiting, visiting practices and open visiting policies (Appendix I).

5.2.2 Phase two

Objective two was to describe the beliefs and attitudes of ICU doctors and nurses regarding visiting, visiting hours and open visiting in ICU.

In total there were one hundred and fifty four participants in this study with 52.62% being ICU nurses and 47.38% being ICU doctors. There appeared to have been more females (68.83%) than males (31.17%) who participated with most of the participants (54.7%) being between 23 years and 36 years of age.

The categories of ICU nurses were made up of 12.99% chief professional nurses, 7.4% senior professional nurses and 14.96% professional nurses. There were more nursing auxiliary nurses 20.13% compared with only 9.4% enrolled nurses. The categories of ICU doctors that participated were made up of 3.25% medical officers, 20.13% surgical or medical registrars and 24.00% consultants. Of all the participants in this study there were only 11.76% who held executive positions and 88.24% who did not hold executive positions. The executive positions that the ICU doctors held were ICU directors 1.95% and ICU consultants 4.55%. The number of ICU nurses who held executive positions consisted of 3.25% operational managers, 1.30% ICU clinical facilitators and 0.65% nursing asset managers. The majority of the participants (64.38%) had (0-5) years of ICU experience.

There were three types of hospitals that the participants were permanently employed in. Most of the participants (66.01%) were from the quaternary public sector hospital in Johannesburg. There were in total then 96.10% working in public sector hospitals and 3.90% in the private sector hospitals. The different ICU units that were invited to participate in this study were the cardiothoracic unit, cardiac care unit, neuro-surgery unit, trauma unit and the (general) multidisciplinary unit. The majority of the participants (19.48%) were from the (general) multidisciplinary unit.

Depending on the ICU units and the hospitals the participants came from, most ICU units only allowed certain loved ones to visit. There were no restrictions on who visited in the majority (53.90%) of the ICU units in which the participants worked. In 38.96% of the ICU units only relatives and others

approved by the family and the patient were allowed to visit, with the minority (7.14%) of ICU units allowing only direct relatives to visit. The different visiting policies also had various numbers of visiting slots (visiting periods) allowing only certain numbers of people to visit at a time. Most of the participants in this study (60.39%) documented that only one visiting slot was allowed in their units. In the majority (89.61%) of ICUs two persons were allowed to visit (be at the patient's bedside) at a time, with the minority (0.65%) of the ICUs allowing four persons to visit at one time. No restrictions on the number of visitors at the patient's bedside at a time were implemented in 2.60% of the participants ICUs, Only 5.84% of the ICUs allowed one visitor while 1.30% allowed three visitors at a time at the patient's bedside.

There were also different lengths of visiting times recorded by the participants. Most of the ICUs (71.43%) had a maximum visiting time of between one and two hours. The majority (77.92%) of the participants did agree that an exception to the visiting policy must be made if the patient is dying. They disagreed that an exception should be made to the visiting policy if the family had practical problems with the visiting policy. An interesting fact was that only 37.67% of the participants agreed that an exception should be made to the visiting policy if the family had practical problems with the visiting policy. There were also only 29.22% of the participants that agreed that an exception should be made to the visiting policy if the patient had emotional needs. The majority (91.55%) of the participants did not make an exception to the visiting policy even if they had practical needs.

The majority of the ICUs had an official written visiting policy while only 8.50% of the ICUs did not have any official written visiting policy. Only 2.60% of the participants claimed that their ICUs implemented an open visiting policy, while 97.40% implemented a restrictive visiting policy. According to the majority (89.87%) of the participants there are times during the day when no visitors are allowed. In only fifteen of the ICUs (10.14%) the participants responded that there were no specific times during the day when no visitors were allowed.

5.2.3 Similarities between ICU clinicians (doctors and nurses).

Objective three was to describe the differences and similarities in the beliefs and attitudes regarding visiting, visiting hours and open visiting between ICU clinicians (doctors and nurses).

Both the ICU doctors (95.89%) and the ICU nurses (91.37%) agreed that visitation has a beneficial effect on the patient ($p=0.128$). Most of the ICU nurses (57.50%) and ICU doctors (69.86%) agreed that visitors can help the patient interpret information ($p=0.273$). ICU doctors (63.01%) and ICU nurses (56.79%) disagreed that visitation hinders the patient's rest ($p=0.730$), 71.33% of the ICU doctors and 64.20% of the ICU nurses disagreed that visitation causes physiological stress in the patient ($p=0.392$).

The ICU doctors (69.86%) and ICU nurses (57.50%) in the study both agreed that visitors can help the patient interpret information and that an open visiting policy decreases family anxiety ($p=0.584$). Both, ICU doctors (46.58%) and ICU nurses (35.00%), disagreed that an open visiting policy offers more comfort to the patient ($p=0.257$). The ICU doctors (41.25%) and the ICU nurses (31.25%) disagreed that an open visiting policy violates the patient's privacy and confidentiality ($p=0.288$), while the (43.84%) of ICU doctors and (50.62%) of ICU nurses also disagreed in that open visiting exhausts family, because they feel forced to be with the patient ($p=0.541$).

The ICU doctors (69.86%) and ICU nurses (62.96%) in this study agreed that an open visiting policy interferes with the planning of the patient's daily nursing care process ($p=0.238$) but when assessing the beliefs that an open visiting policy makes nurses/doctors feel controlled both the ICU doctors (50.68%) and the ICU nurses (43.75%) disagreed with this statement ($p=0.591$).

In the last decade ICU doctors and ICU nurses have tried all over the world to move towards a patient-centred care unit. In this study the ICU doctors (41.10%) and the ICU nurses (51.25%) agreed that an open visiting policy contributes to the improvement of patient-centred care ($p=0.383$). Since there is a criminal element operating in the hospital where this study was conducted an additional question was added to the questionnaire, asking the ICU clinicians whether they believed that an open visiting policy would decrease the safety of themselves and the patient. Both the ICU doctors (39.73%) and the ICU nurses (46.91%) agreed without hesitation that their and the patients' safety would be decreased with an open visiting policy ($p=0.103$).

Because of the diverse cultural backgrounds within the quaternary public hospital in this study both the ICU doctors (47.95%) as well as the ICU nurses (58.02%) agreed that an open visiting policy would allow for all cultural beliefs to be taken into consideration ($p=0.142$). The ICU doctors (38.99%) and

the ICU nurses (50.00%) also both agreed that the visiting policy must be adapted to the culture of individual patient ($p=0.082$)

ICU doctors (60.27%) and ICU nurses (74.07%) agreed that everybody should be allowed to visit if it is approved by the patient ($p=0.157$). The ICU doctors (73.97%) and the ICU nurses (85.00%) both disagreed that the length of a visit should not be limited ($p=0.234$). Another interesting finding is that both the ICU doctors (64.38%) and ICU nurses (64.38%) disagreed that an open visiting policy should be adopted in their units ($p=0.485$). Neither the ICU doctors nor the nurses differed in the total number of visitors they would allow in the ICU during the day (5.56-5.16) with a ($t\text{-test}=0.000$) nor did the ICU doctors or ICU nurses differ in the number of visitors allowed during the same visit (1.5-1.2) ($t\text{-test}=0.75$).

5.2.4 Differences between the ICU clinicians (doctors and nurses)

It was statistically significant that more ICU doctors (73.97%) disagreed that visitation creates adverse haemodynamic responses in the patient ($p=0.001$), more ICU doctors (57.53%) also disagreed that an open visiting policy is important for the recovery of the patient ($p=0.000$), and more ICU doctors (76.71%) agreed that an open visiting policy interferes with direct nursing/medical care ($p=0.010$).

Significantly more ICU doctors (50.68%) agreed and significant number of ICU nurses (65.43%) disagreed that an open visiting policy makes nurses/doctors nervous because they are afraid of making errors ($p=0.000$). Only a marginally significantly more ICU doctors (71.23%) agreed that an open visiting policy makes nurses/doctors spend more time in providing information to the family ($p=0.060$), while the number of nurses (32.10%) that agreed that the number of visitors in a day should be not limited is statistically significant ($p=0.045$). There were notably more ICU doctors (98.63%) disagreeing that the number of people who visit the patient at the same time should not be limited ($p=0.003$), but markedly more ICU doctors (98.63%) agreed that the visiting policy must be adapted when the patient is dying ($p=0.000$).

Significantly more ICU nurses (48.15%) disagreed that open visiting increases the risk of errors ($p=0.002$). More ICU nurses (61.25%) agreed that visitation is a helpful support for the caregivers ($p=0.036$), and more ICU nurses (63.29%) agreed that the visiting policy must be flexible during the first

24 hours of hospitalization, while more ICU doctors (38.36%) disagreed that the visiting policy must be flexible during the first 24 hours of hospitalisation ($p=0.035$).

5.2.5 Similarities between ICU clinicians (ICU experienced and ICU trained nurses)

Objective four was to describe the differences and similarities in the beliefs and attitudes regarding visiting, visiting hours and open visiting in ICU trained nurses and ICU experienced nurses.

Both the ICU trained nurses (92.50%) and the ICU experienced nurses (89, 74%) agreed that visitation has a beneficial effect on the patient ($p=0.712$). While 15.00% of the former and 23.08% of the latter agreed that visitation hinders the patients rest ($p=0.359$). Both groups of nurses disagreed that visitation causes physiological stress for the patient ($p=0.935$). Whether visitation causes psychological stress for the patient, resulted in both the ICU trained nurses (73.68%) and ICU experienced nurses (76.32%) disagreeing ($p=1.000$).

The belief that an open visiting policy is important for the recovery of the patient was agreed on by both the ICU trained nurses (45.00%) and the ICU experienced nurses (39.47%) resulting in ($p=0.100$). There was also agreement between the ICU trained nurses (61.54%) and the ICU experienced nurses (51.28%) that visitors help the patient interpret information ($p=0.493$). Both the ICU trained nurses (45.00%) and the ICU experienced nurses (39.47%) agreed that an open visiting policy violates the patient's privacy and confidentiality ($p=0.787$) but at the same time (41.03%) of trained ICU nurses and (51.28) ICU experienced nurses agreed that an open visiting policy offers more comfort to the patient resulting in ($p=0.613$).

Interestingly both the ICU trained nurses (69.23%) and the ICU experienced nurses (55.26%) agreed that an open visiting policy decreases ICU patient's family anxiety ($p=0.194$). Both the ICU trained nurses (45.00%) and the ICU experienced nurses (56.41%) disagreed that an open visiting policy would exhaust the family because they would feel forced to be with the patient all the time ($p=0.632$). Furthermore ICU trained nurses (75.00%) and the ICU experienced nurses (58.97%) disagreed that an open visiting policy would make nurses nervous, because they are afraid of making errors ($p=0.321$).

Interference of an open visiting policy in the patient's daily nursing care was agreed to by both the ICU trained nurses (67.50%) and the ICU experienced nurses (56.41%) resulting in ($p=0.452$). The same sentiment was also expressed between the ICU trained nurses (67.50%) and the ICU experienced nurses (46.15%) in that an open visiting policy makes nurses spend more time providing information to the family ($p=0.169$). An open visiting policy increases the risk of error was not the belief of either the ICU trained nurses (57.50%) or the ICU experienced nurses (41.03%) ($p=0.329$). In assessing whether visitation is a helpful support for the caregivers both the ICU trained and the ICU experienced nurses agreed ($p=0.946$). Both ICU trained (48.72%) as well as ICU experienced nurses (56.41%) agreed that an open visiting policy contributes to the improvement of patient-centred care ($p=0.347$).

Especially in the South African setting, one needs to look at whether an open visiting policy would decrease the safety of the staff and the patient. Both the ICU trained (47.50%) and the ICU experienced nurses (43.59%) felt that it would decrease their safety and that of the patients ($p=0.640$). As there are different cultural beliefs in South Africa both the ICU trained (52.50%) and the ICU experienced nurses (64.50%) agreed that an open visiting policy would allow for all the cultural beliefs to be considered ($p=0.552$). The ICU trained nurses (33.00%) and the ICU experienced nurses (50.00%) also agreed that an open visiting policy must be adapted to the culture of the individual patient ($p=0.183$).

Interestingly the ICU nurses (72.50%) as well as the ICU experienced nurses (74.36%) agreed that everybody should be allowed to visit if approved by the patient ($p=0.719$), but both sets of nurses disagreed that the number of visitors in a day should not be limited ($p=0.064$). 79.49% of the ICU trained nurses and 92.50% of the ICU experienced nurses disagreed that the number of visitors at the same time should be limited ($p=0.120$). Which resulted in both the ICU trained nurses (80.00%) and the ICU experienced nurses (64.10%) disagreeing that an open visiting policy be adapted in their unit ($p=0.264$). Although the ICU trained and the ICU experienced nurses did not want to adopt an open visiting policy in their unit, the ICU trained nurses (41.03%) and the ICU experienced nurses (42.86%) agreed that capable patients should control the number and the duration of their own visits ($p=0.0610$).

ICU trained (45.00%) and the ICU experienced nurses (42.11%) disagreed that a strict starting time is important but the length of the visit should be flexible ($p=0.947$). The ICU trained (65.00%) and the ICU experienced (62.16%) agreed that a visiting policy must be flexible during the first 24 hours of

hospitalization ($p= 1.000$), while 72.50% of ICU trained and (88.89%) of ICU experienced felt that a visiting policy must be adapted when a patient is dying ($p= 0.125$).

Each nursing group thought that between 5.1 and 5.2 persons can visit the patient at the same time, resulting in a t-test result of: 0.9099. Both the ICU nurses (45.91%) and the ICU experienced nurses (54.09%) thought that between 1.12 and 1.3 persons can be allowed to visit the patient at the same time.

5.2.6 Differences between ICU experienced and ICU trained nurses.

Significantly more ICU trained nurses (65.00%) disagreed that visitation creates adverse haemodynamic responses in the patient ($p=0.028$) and significantly more ICU trained nurses (95.00%) disagreed that the length of a visit should not be limited ($p= 0.012$). Notably more ICU trained nurses (77.50%) agreed that an open visiting policy interferes with direct nursing care ($p= 0.012$) but significantly more ICU trained nurses (67.50%) agreed that there must be an adaption of the strict visiting policy when the family has practical problems with the current visiting times ($p=0.014$). Of statistical significance was that more ICU trained nurses (67.50%) agreed that if the patient had emotional needs the strict visiting policy needed to be adapted ($p = 0.023$) and more ICU trained nurses (57.50%) disagreed that an open visiting policy makes nurses feel controlled ($p=0.021$).

5.3 LIMITATIONS OF THE STUDY

There were limitations in this study, namely

- The number of non-respondents, especially from the intensive care doctors, which tempers the generalisation of the results.
- The interviewed intensive care clinicians (doctors and nurses) who participated may not be representative of general intensive care clinicians (doctors and nurses) in the rest of South Africa.
- Only one public hospital in Gauteng, affiliated to one university, was used and thus the demographics of the population used may not be representative of other hospitals in the province's private hospitals or the rest of South Africa health care fraternity.

- Only the beliefs and attitudes of intensive care clinicians (doctors and nurses) were included in this study and unfortunately not the beliefs and attitudes of the patient or family. In future, with ICU units becoming more patient/family care-centred units, the beliefs and attitudes of the patient and family as well as the ICU clinicians (doctors and nurses) will need to be researched and evaluated.
- Although the questionnaire was validated for the South African setting and the reliability tested originally in Belgium then again in South Africa, there still appeared to be some inconsistencies in the results. For instance intensive care clinicians agreed that the patient should control his/her own visiting, when they are able to, but they did not want to have an open visiting policy implemented in their units. (The reason for these inconsistencies could be the way.
- The presence of a double barrelled question (question number: 33) in the questionnaire was also a limitation to this study. The researcher was unable to determine which part of the question the participants were referring to.

5.4 RECOMMENDATIONS OF THE STUDY

Based on the findings of the study it appears as if ICU clinicians (both nurses and doctors) do implement an open visiting policy when the patient is dying but due to the existing culture and practice of hospital management in these intensive care units there still is resistance to change from a restrictive visiting policy.

5.4.1 Recommendation for health care education.

The following recommendations in health care education apply to all health care personnel from management to the most junior intensive care clinicians (doctors and nurses) in the clinical setting:

- Universities and hospital training programmes for intensive care clinicians (nurses and doctors) should introduce established guidelines into their curriculum and provide adequate resources for the intensive care clinicians to facilitate the transition from a restrictive visiting policy to a more liberal visiting policy.

- Topics such as restrictive and open visiting policies which focus on patient centred care and family centred care should also be introduced into in-service training programmes for intensive care clinicians (doctors and nurses).
- The importance of the critically patients' family being included in his/her ICU care needs to be incorporated into the ICUs visiting policies. The most updated literature has proved that the benefits of family presence outweighs their absence at the bedside in promoting the recovery of the patient and decreasing the anxiety as well as the loneliness that these patients experience when admitted into the ICU environment.
- ICU unit rounds should include a daily assessment by the clinicians (doctors and nurses) on whether patient could have their relatives at bedsides at unrestricted hours if their presence does not affect the patients' haemodynamics adversely.
- Hospital management and ICU clinicians (doctors and nurses) need to discuss ways of adjusting the visiting policy so that visitors can be with their loved ones at times that suit them, but at the same time not interfering with the direct nursing /medical care that the ICU clinicians need to render to the patient. Family members can be asked to leave the unit during unit rounds, invasive procedures or medical emergencies but should be allowed to return as soon as possible.
- Intensive care clinicians (nurses and doctors) should be included in the implementation of a new visiting policy and practice allowing their input from the clinical setting to be taken into consideration. ICU clinicians (doctors and nurses) need to discuss their differences and form a visiting policy that clearly states how many visitors should be allowed to visit at one time so that consistency is applied throughout the units.
- ICU clinicians need to be informed on existing evidence that shows the benefits for the patients when visiting hours are more flexible and how by having the families involved in the patient's care their relationship with family members will improve and a great deal of information about the patients would be revealed to them.
- ICU clinicians (doctors and nurses) need to devise a plan which incorporates time for the family and visitors to discuss issues about their loved ones' care or the prognosis of their loved ones outside the visiting hour periods so that their anxieties and stress levels can be decreased. This will relieve pressure at visiting hours from the ICU clinicians by not having to provide information to the critically ill patients' family members at that time.

5.4.2 Recommendations for nursing management

The following recommendations should be considered by management to enhance their strategies and mechanisms involving visiting policies and practices in the intensive care setting:

- Interviews and surveys with intensive care clinicians (ICU trained and experienced nurses) as well as the patients and family could be conducted in order to establish staff and patient satisfaction and facilitate communication within the intensive care units to determine if the established visiting policy is adequate or not.
- A trial of a day or two with slight changes to the existing visiting policy should be implemented by the various intensive care units in order to determine if a more liberalised visiting policy does aid patient recovery and decrease family anxiety without interfering in nursing care and medical intervention.
- Intensive care conditions need to be reviewed and relatives of patients should be allocated to a specific waiting room in the hospital in which they will feel comfortable and near to their loved ones. Intensive care clinicians (nurses and doctors) can then confidentially explain to the family the prognosis of their loved one and explain ICU policy and routine.
- Consistency in the visiting policy and practices between the different intensive care units in the hospital could be improved by the collation of a pamphlet containing the rules of visitation, the schedule of the intensive care units, a map and a list of commonly used terms with suggestions as to the best time to visit in order for the patient and the family to have a better understanding of the intensive care unit environment.
- Flexibility in visiting policies needs to be encouraged in the ICU units by the ICU trained and experienced nurses, especially when the patient has emotional needs or the family has practical problems with the present visiting times. In South Africa because of the poor public transport system and the distances the community members must often travel a more liberalised approach needs to be considered. A critically ill patient's family member may be the only breadwinner in the family and consequently will not be able to leave work at specific visiting hours and thus adaption to the current policy will need to be made.

5.4.3 Recommendation for further research.

The following recommendations should be considered for further nursing research:

- The inclusion of the patients' and families' beliefs and attitudes need to be researched to establish a visiting policy that balances the needs of the patient, family and the health care providers.
- A nationwide survey needs to be conducted in order to evaluate the various visiting policies implemented in South African intensive care units which will then determine if patients and families constitutional rights are taken into consideration. The findings of a nationwide survey will also determine whether or not Batapela has been incorporated into the visiting policies and practices in other public and private sector hospitals.

5.5 CONCLUSION

The ICU clinicians in this study have agreed that visitation is beneficial to the patient but they were not in favour of their units implementing an open visiting policy. The consensus was that the ICU clinicians felt controlled by an open visiting policy and were concerned that an open visiting policy would interfere with the patients' daily nursing and medical care.

The ICU clinicians' main concern was that an open visiting policy could decrease the safety of the staff and patients especially in Gauteng where the study was conducted. This was also one of the factors why the majority of intensive care clinicians in this study claimed not to want to have an open visiting policy implemented in their unit.

The differences in the beliefs and attitudes of the intensive care doctors and the intensive care nurses is also a finding that could hamper the movement towards a more liberalised and open visiting practice and policy (Berti et al.; 2007:1062). According to (Anzoletti, et al., 2008:373) "*the attitudes of the employees in the ICU is the most important variable that can facilitate the move towards unrestrictive policies and a commitment to removing all barriers*". Thus the importance of this study was to ascertain the beliefs and attitudes of the ICU clinicians in the hospital where the study was conducted so that in the future a more liberalised visiting policy can be developed. Hopefully in the future with the data obtained from this study the critical care fraternity will be able to develop a visiting policy that

will include the ICU clinicians beliefs and attitudes as well as those of the patients and families to enhance the holistic care rendered to the critically ill patient.

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APPENDIX A
ORIGINAL BAVIQ QUESTIONNAIRE

VISITATION PRACTICE QUESTIONNAIRE

TO BE FILLED IN BY THE INTENSIVE CARE UNIT CLINICIANS

Name of hospital:.....

Name of Intensive Care Unit:.....

What is the visitation policy at your ICU?

Restrictions on visits

Limit on the number of visiting slots in 24 h	
One visiting slot	☐
Two visiting slots	☐
Three visiting slots	☐
Four or more visiting slots	☐
No visiting slot	☐

Limit on number of visitors at one time	
One visitor	☐
Two visitors	☐
Three visitors	☐
Four or more visitors	☐
No limit on visitors	☐

Limit on who visits	
Direct relatives only	☐
Relatives and others approved by the patient/family	☐
No restrictions on who visits	☐

Limit on maximum visiting time	
10-20 minutes	☐
30-45 minutes	☐
1-2 hour	☐
Others	☐
No time limit	☐

Exceptions in the visiting policy

Exceptions in the visiting policy can be made when:	
the patient is dying	☐
the family has practical problems in complying with the policy	☐
the patient has emotional needs	☐
the healthcare workers have practical needs	☐
others	☐

Is there an official, written visiting policy in the Intensive Care Unit?	☐	Yes
	☐	No

Are there specific times during the day when no visitors are allowed?	
	
	
	
	
	
	
	

BAVIQ

Beliefs and Attitudes toward Visitation in ICU Questionnaire

DEMOGRAPHIC AND PROFESSIONAL DATA

Sex ☐ Male
☐ Female

Age years old

Level of education ☐ Certified nurse
(more answers possible) ☐ Bachelor degree in nursing
☐ Post-registration education: specialization course in emergency/intensive care nursing
☐ Master's degree in nursing science
☐ Other:

Employed in: ☐ Regional hospital
☐ University hospital
☐ Other:

Type of intensive care unit?

I have an executive position? ☐ Yes
☐ No

If Yes: Which?

I have years experience in intensive care nursing

Definition 'Restricted visiting policy': A policy that imposes restrictions on the time of visits, length of visits, and/or number of visitors.	Definition: 'Open visiting policy': A policy that imposes no restrictions on the time of visits, length of visits, and/or number of visitors.
---	---

Is there a restricted or open visiting policy in your intensive care unit?

- ☐ Restricted visiting policy
- ☐ Open visiting policy

Developed by Berti D, Ferdinande P, Moons P.

Permission for the use of the BAVIQ can be obtained by email: Philip.Moons@med.kuleuven.be

BELIEFS ABOUT THE CONSEQUENCES OF VISITATION ON THE PATIENT, FAMILY AND ORGANISATION OF CARE

		Strongly disagree	Disagree	Neither agree, nor disagree	Agree	Strongly agree
1	I believe that visitation has a beneficial effect on the patient.	☐	☐	☐	☐	☐
2	I believe that visitation hinders the patient's rest.	☐	☐	☐	☐	☐
3	I believe that visitation causes physiological stress for the patient	☐	☐	☐	☐	☐
4	I believe that visitation creates adverse hemodynamic responses in patients.	☐	☐	☐	☐	☐
5	I believe that an open visiting policy is important for the recovery of the patient.	☐	☐	☐	☐	☐
6	I believe that visitation causes psychological stress for the patient	☐	☐	☐	☐	☐
7	I believe that visitors can help the patient interpret information.	☐	☐	☐	☐	☐
8	I believe that an open visiting policy infringes upon patient's privacy.	☐	☐	☐	☐	☐
9	I believe that an open visiting policy offers more comfort to the patient.	☐	☐	☐	☐	☐
10	I believe that an open visiting policy decreases family's anxiety.	☐	☐	☐	☐	☐
11	I believe that an open visiting policy exhausts family, because they feel forced to be with the patient.	☐	☐	☐	☐	☐
12	I believe that an open visiting policy interferes with direct nursing/medical care.	☐	☐	☐	☐	☐
13	I believe that an open visiting policy makes nurses nervous, because they are afraid to err.	☐	☐	☐	☐	☐
14	I believe that an open visiting policy makes nurses feel controlled.	☐	☐	☐	☐	☐

15	I believe that an open visiting policy hampers adequate planning of the nursing care process.	☐	☐	☐	☐	☐
16	I believe that an open visiting policy interferes with humour between nurses.	☐	☐	☐	☐	☐
17	I believe that an open visiting policy makes nurses to spend more time in providing information to the family.	☐	☐	☐	☐	☐
18	I believe that an open visiting policy increases the risk of errors.	☐	☐	☐	☐	☐
19	I believe that visitation is a helpful support for the care givers.	☐	☐	☐	☐	☐
20	I believe that an open visiting policy contributes to the improvement of patient-centred care.	☐	☐	☐	☐	☐

ATTITUDES TOWARDS VISITING

		Strongly disagree	Disagree	Neither agree, nor disagree	Agree	Strongly agree
21	I think that everyone is allowed to visit, if it is approved by the patient.	☐	☐	☐	☐	☐
22	I think that the number of visitors in a time range of 24h should not be limited.	☐	☐	☐	☐	☐
23	I think that in a time range of 24h the number of visitors should be limited to persons.					
24	I think that the length of a visit should not be limited.	☐	☐	☐	☐	☐
25	I think that only persons can visit the patient at the same time.					
26	I think that the number of people who are visiting the patient at the same time should not be limited.	☐	☐	☐	☐	☐
27	I think that an open visiting policy should be carried out in our unit.	☐	☐	☐	☐	☐
28	I think that strict visiting hours must be adapted when the family has practical problems adhering to the policy.	☐	☐	☐	☐	☐
29	I think that strict visiting hours must be adapted when the patient has emotional needs.	☐	☐	☐	☐	☐
30	I think that when the patient is capable, he/she should have control in when, how long and how many visitors he/she can have.	☐	☐	☐	☐	☐
31	I think that the visiting policy must be adapted to the culture/ethnicity of the patient.	☐	☐	☐	☐	☐
32	I think that a strict starting hour is important, but the length of a visit can be flexible.	☐	☐	☐	☐	☐
33	I think that the visiting policy must be flexible during the first 24h of hospitalization.	☐	☐	☐	☐	☐
34	I think that the visiting policy must be adapted when the patient is dying.	☐	☐	☐	☐	☐

APPENDIX B

**RESTRUCTURED QUESTIONNAIRE FOR THE SOUTH AFRICAN
SETTING**

OPEN VISITING POLICY: BELIEFS AND ATTITUDES OF INTENSIVE CARE HEALTH CARE CLINICIANS
TO BE FILLED IN BY THE INTENSIVE CARE UNIT CLINICIANS

Name hospital:.....

Name intensive care unit:.....

What is the visitation policy at your ICU?

Restrictions on visits

Limit on the number of visiting slots in 24 h	
One visiting slot	☐
Two visiting slots	☐
Three visiting slots	☐
Four or more visiting slots	☐
No visiting slot	☐

Limit on number of visitors at one time	
One visitor	☐
Two visitors	☐
Three visitors	☐
Four or more visitors	☐
No limit on visitors	☐

Limit on who visits	
Direct relatives only	☐
Relatives and others approved by the patient/family	☐
No restrictions on who visits	☐

Limit on maximum visiting time	
10-20 minutes	☐
30-45 minutes	☐
1-2 hour	☐
Others	☐
No time limit	☐

Exceptions in the visiting policy

Exceptions in the visiting policy can be made when:	
the patient is dying	☐
the family has practical problems in complying with the policy	☐
the patient has emotional needs	☐
the healthcare workers have practical needs	☐
others	☐

Is there an official, written visiting policy in the intensive care unit?	☐	Yes
	☐	No

Are there specific times during the day when no visitors are allowed?	
	
	
	
	
	
	
	

OPEN VISITING POLICY: BELIEFS AND ATTITUDES OF INTENSIVE CARE HEALTH CARE CLINICIANS

DEMOGRAPHIC AND PROFESSIONAL DATA

Sex ☐ Male ☐ Female

Age years old

Level of education ☐ Nursing Auxiliary

(more answers possible) ☐ Enrolled Nurse

☐ Professional Nurse ☐ Senior Professional Nurse

☐ Chief Professional Nurse

☐ ICU Trained Y/N ☐ Clinical Facilitator

Employed in:

☐ Regional hospital

☐ University hospital

☐ Other:

Type of intensive care unit?

I have an executive position?

☐ Yes

☐ No

If Yes: Which?

I have years experience in intensive care nursing

<u>Definition 'Restricted visiting policy':</u> A policy that imposes restrictions on the time of visits, length of visits, and/or number of visitors.	<u>Definition: 'Open visiting policy':</u> A policy that imposes no restrictions on the time of visits, length of visits, and/or number of visitors.
---	---

Is there a restricted or open visiting policy in your intensive care unit?

- ☐ Restricted visiting policy
- ☐ Open visiting policy

**OPEN VISITING POLICY: BELIEFS AND ATTITUDES OF INTENSIVE CARE HEALTH
CARE CLINICIANS**

		Strongly disagree 1	Disagree 2	Neither agree, nor disagree 3	Agree 4	Strongly agree 5
1	I believe that visitation has a beneficial effect on the patient.	☐	☐	☐	☐	☐
2	I believe that visitation hinders the patient's rest.	☐	☐	☐	☐	☐
3	I believe that visitation causes physiological stress for the patient	☐	☐	☐	☐	☐
4	I believe that visitation creates adverse hemodynamic responses in patients.	☐	☐	☐	☐	☐
5	I believe that an open visiting policy is important for the recovery of the patient.	☐	☐	☐	☐	☐
6	I believe that visitation causes psychological stress for the patient	☐	☐	☐	☐	☐
7	I believe that visitors can help the patient interpret information.	☐	☐	☐	☐	☐
8	I believe that an open visiting policy violates the patient's privacy and confidentiality.	☐	☐	☐	☐	☐
9	I believe that an open visiting policy offers more comfort to the patient.	☐	☐	☐	☐	☐
10	I believe that an open visiting policy decreases family's anxiety.	☐	☐	☐	☐	☐
11	I believe that an open visiting policy exhausts family, because they feel forced to be with the patient	☐	☐	☐	☐	☐
12	I believe that an open visiting policy interferes with direct nursing /medical care.	☐	☐	☐	☐	☐
13	I believe that an open visiting policy makes nurses nervous, because they are afraid to error.	☐	☐	☐	☐	☐
14	I believe that an open visiting policy makes nurses doctors feel controlled.	☐	☐	☐	☐	☐

		Strongly disagree 1	Disagree 2	Neither agree, nor disagree 3	Agree 4	Strongly agree 5
15	I believe that an open visiting policy hampers adequate planning of the nursing/medical care process.	☐	☐	☐	☐	☐
16	I believe that an open visiting policy makes nurses /doctors to spend more time in providing information to the family.	☐	☐	☐	☐	☐
17	I believe that an open visiting policy increases the risk of errors.	☐	☐	☐	☐	☐
18	I believe that visitation is a helpful support for the care givers.	☐	☐	☐	☐	☐
19	I believe that an open visiting policy contributes to the improvement of patient-centred care	☐	☐	☐	☐	☐
20	I believe that an open visiting policy will decrease the safety of the staff and patients.	☐	☐	☐	☐	☐
21	I believe that an open visiting policy will allow for all culture factors to be taken into consideration.	☐	☐	☐	☐	☐

ATTITUDES TOWARDS VISITING

		Strongly Disagree	Disagree	Neither agree, nor disagree	Agree	Strongly agree
		1	2	3	4	5
22	I think that everyone is allowed to visit, if it is approved by the patient.	☐	☐	☐	☐	☐
23	I think that the number of visitors in a time range of 24h should NOT be limited.	☐	☐	☐	☐	☐
24	I think that in a day (24h) the number of visitors should be limited to persons.					
25	I think that the length of a visit should not be limited.	☐	☐	☐	☐	☐
26	I think that only persons can visit the patient at the same time.					
27	I think that the number of people who are visiting the patient at the SAME TIME should NOT be limited.	☐	☐	☐	☐	☐
28	I think that an open visiting policy should be carried out in our unit.	☐	☐	☐	☐	☐
29	I think that strict visiting hours must be adapted when the family has practical problems adhering to the policy.	☐	☐	☐	☐	☐
30	I think that strict visiting hours must be adapted when the patient has emotional needs.	☐	☐	☐	☐	☐
31	I think that when the patient is capable, he/she should have control in when, how long and how many visitors he/she can have.	☐	☐	☐	☐	☐
32	I think that the visiting policy must be adapted to the culture/ethnicity of the patient.	☐	☐	☐	☐	☐
33	I think that a strict starting hour is important, but the length of a visit can be flexible.	☐	☐	☐	☐	☐
34	I think that the visiting policy must be flexible during the first 24h of hospitalization.	☐	☐	☐	☐	☐
35	I think that the visiting policy must be adapted when the patient is dying.	☐	☐	☐	☐	☐

APPENDIX C

PURPOSIVE ICU PANEL INFORMATION LETTER – PHASE 1 STEP 1

PANEL INFORMATION LETTER

Dear Colleague,

My name is Vivien Herbert. I am an Intensive Care Nurse and currently studying for a Masters Degree in Nursing Science at the University of the Witwatersrand. I am conducting a study to determine the beliefs and attitudes of ICU clinicians regarding visiting, visiting policies and visiting practices in the ICU. This study will use a questionnaire that was developed and validated for use in Belgium.

I am hereby requesting you to be part of a panel to assess the questionnaire for use in our country. The questionnaire consists of two sections. The first section will address beliefs about the consequences of visitation on the patient, the family and the organisation of care. The second section will address the attitudes of ICU clinicians towards visiting. An additional section is included to gather demographic information of the participants.

Should you agree to participate, please complete the attached demographic questionnaire and consent form. Please assess each question of the attached questionnaire to determine whether the right questions been asked to determine the beliefs and attitudes of ICU clinicians with respect to visiting, visiting policies and visiting practices.

Please then rate each question using the following 4-point ordinal scale on the attached assessment form (Form 1) using the following ratings:

- 1 = not relevant
- 2 = unable to assess relevance without item revision
- 3 = relevant but needs minor alterations
- 4 = very relevant and succinct

I would also like you to indicate whether there are any changes, additions or deletions necessary to the instrument.

Participation in the process is entirely voluntary. You may choose not to participate, or to withdraw from this validation process at any time. Confidentiality is guaranteed as only me and my supervisor will have access to your data. I appreciate that you will not benefit directly from participation in this study; however, I hope that the results of the study will help us to produce a successful visiting policy for ICUs that balances the needs of the patients and the ICU clinicians.

The Faculty of Medicine Post Graduate Committee and the Ethics Committee of the University of the Witwatersrand have approved this study.

Should you wish to contact me, or require any further information, my cell number is 082 974 8029. Thank you for taking the time to read this information letter.

Yours sincerely
Vivien Herbert

APPENDIX D

ASSESSMENT OF CONTENT OF VALIDITY FORMS – PHASE1 STEP 1

FORM 1: Assessment of content validity

- 1 = not relevant
 2 = unable to assess relevance without item revision
 3 = relevant but needs minor alterations
 4 = very relevant and succinct

Question	1	2	3	4
SECTION 1 Beliefs				
Q.1				
Q.2				
Q.3				
Q.4				
Q.5				
Q.6				
Q.7				
Q.8				
Q.9				
Q.10				
Q.11				
Q.12				
Q.13				
Q.14				
Q.15				
Q.16				
Q.17				
Q.18				
Q.19				
Q.20				
Q.21				
Q.22				

FORM 2: Assessment of content validity

- 1 = not relevant
2 = unable to assess relevance without item revision
3 = relevant but needs minor alterations
4 = very relevant and succinct

Question	1	2	3	4
SECTION 2 Attitudes				
Q.23				
Q.24				
Q.25				
Q.26				
Q.27				
Q.28				
Q.29				
Q.30				
Q.31				
Q.32				
Q.33				
Q.34				
Q.35				
Q.36				

APPENDIX E

CONSENT FOR PURPOSES PANEL ICU MEMBERS

(PHASE 1 STEP 1) AND ICU PARTICIPANTS (PHASE 2 STEP 3)

**OPEN VISITING POLICY: BELIEFS AND ATTITUDES OF INTENSIVE CARE HEALTH CARE
CLINICIANS**

CONSENT FORM

I, _____ (name), fully understand the contents of this information letter. I have been offered the opportunity to ask questions and these have been answered to my satisfaction. I understand that I may withdraw from this process at any stage without penalty. I have been assured that my confidentiality will be maintained.

I hereby give consent to assist in validation of the instrument.

(Participant)

(Date)

APPENDIX F

INFORMATION LETTER FOR ICU PARTICIPANTS – PHASE 2 STEP 3

OPEN VISITING POLICY: BELIEFS AND ATTITUDES OF INTENSIVE CARE HEALTH CARE CLINICIANS

INFORMATION LETTER

Dear Colleague,

My name is Vivien Herbert. I am an Intensive care nurse and currently studying for a Masters degree in Nursing Science at the University of the Witwatersrand. I am conducting a research study, and would like to ask your consent to participate in my study.

The purpose of this study is to determine the beliefs and attitudes of ICU Health Care Providers regarding visiting, visiting hours and open visiting in ICUs with a view to guiding changes to existing visiting policies in the best interest of patient care. The study will cover ICU nurses, doctors working in ICU and physiotherapists working in an academic hospital in Johannesburg.

Should you consent to take part in the study, I will ask you to sign a consent form. I will then ask you to complete an instrument. This should not take you more than 25-30 minutes to complete. I will obtain permission from your unit manager for you to complete the instrument in "on duty" time and I will personally bring you the instrument. Completed instruments will be placed in sealed unmarked envelopes.

Your participation is voluntary. You may choose not to participate, or to withdraw from the study at any time. Anonymity and confidentiality is guaranteed. No names or identifying information will be asked of you. Only my supervisors and I will have access to the completed instruments. Results of the study will be reported in general terms and no identifying information will be reported. Results of the study will be made available to you if you so wish.

I appreciate that you will not benefit directly from participation in this study however I hope that the results of the study will help to clarify educational needs of nurses with regard to the implementation of protocols.

The appropriate people and research committees of the University of the Witwatersrand and your health care institution have approved this study.

Should you wish to contact me, or require any further information, please do not hesitate to contact me on cell number 082 974 8029.

Thank you for taking the time to read this information letter.

Yours sincerely

Vivien Herbert

APPENDIX G

ETHICS COMMITTEE CORRESPONDENCE

Department of nursing Education

Faculty of Health Sciences

University of the Witwatersrand

7 York Road

Parktown

2193

Wits Ethics Committee

Dear Sir/Madam,

Re: REQUEST TO CONDUCT RESEARCH AT THE JOHANNESBURG HOSPITAL

I am a registered student at the University of the Witwatersrand, in the Department of Nursing Education. I would like to ask for your permission to conduct research at the Johannesburg Hospital. I am currently studying for the degree of Masters of Science in Nursing (Intensive Care Nursing). I would like to conduct a study to determine the beliefs and attitudes of ICU Health Care Providers regarding visiting, visiting hours and open visiting in the adult ICUs at the Johannesburg Hospital. I will use a previously developed instrument to collect the data. Open visiting has been shown to be beneficial to critically ill patients, but an open visiting policy cannot be successfully adapted and implemented unless it is acceptable to the ICU Health Care Providers.

You have my assurance that I will respect all the participants. I will not divulge their names in my report. I will obtain written consent from all participants. A copy of the report will be made available to you, if you so wish.

I will commence my research once my proposal has been approved by the Committee for Research on Human Subjects, of the University of the Witwatersrand.

Yours faithfully,

Vivien Herbert
MSc Nursing Student

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

R14/49 Herbert

CLEARANCE CERTIFICATE

PROTOCOL NUMBER M080014

PROJECT

Open Visiting Policy: Beliefs and
Attitudes of Intensive Care Clinicians

INVESTIGATORS

Miss V Herbert

DEPARTMENT

Dept of Nursing Education

DATE CONSIDERED

08.09.26

DECISION OF THE COMMITTEE*

Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 08.09.29

CHAIRPERSON

[Signature]

(Professor P E Cleaton Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor: Dr G Langley

[Signature]

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and ONE COPY returned to the Secretary at Room 10004, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. I agree to a completion of a yearly progress report.

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES



Faculty of Health Sciences
Medical School, 7 York Road, Parktown, 2193
Fax: (011) 717-2119
Tel: (011) 717-2745

Reference: Ms Tania Van Leeve
E-mail: tania.vanleeve@wits.ac.za
08 October 2008
Perscr No: 296925
PAG

Ms V Herbert
PO Box 1062
Florida
1710
South Africa

Dear Ms Herbert

Master of Science in Nursing: Approval of Title

We have pleasure in advising that your proposal entitled "*Open visiting policy: Beliefs and Attitudes of Intensive Care Clinicians*" has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

A handwritten signature in black ink, appearing to read "S Bonn".

Mrs Sandra Bonn
Faculty Registrar
Faculty of Health Sciences

APPENDIX H

CORRESPONDENCE TO THE DIRECTOR OF ICU



Department of Nursing Education
Faculty of Health Sciences
University of the Witwatersrand
7 York Road
Park town
2193

The Director of Intensive Care
Johannesburg Hospital
Jubilee Road
Park town

Dear Prof Richards

Re: REQUEST TO CONDUCT RESEARCH AT THE JOHANNESBURG HOSPITAL

I am a registered student at the University of the Witwatersrand, in the Department of Nursing Education. I would like to ask for your permission to conduct research at the Johannesburg Hospital. I am currently studying for the degree of Masters of Science in Nursing (Intensive Care Nursing). I would like to conduct a study to determine the beliefs and attitudes of ICU Health Care Providers regarding visiting, visiting hours and open visiting in the adult ICUs at the Johannesburg Hospital. I will use a previously developed instrument to collect the data. Open visiting has been shown to be beneficial to critically ill patients, but an open visiting policy cannot be successfully adapted and implemented unless it is acceptable to the ICU Health Care Providers.

You have my assurance that I will respect all the participants. I will not divulge their names in my report. I will obtain written consent from all participants. A copy of the report will be made available to you, if you so wish.

I will commence my research once my proposal has been approved by the Committee for Research on Human Subjects, of the University of the Witwatersrand.

I have sent a copy of my research proposal to Dr Libitsi and Ms Pam Nel of the Gauteng health Department as well.

Yours faithfully,

Vivien Herbert
MSc Nursing Student

APPENDIX I

CORRESPONDENCE TO THE GAUTENG HEALTH DEPARTMENT

Department of nursing Education
Faculty of Health Sciences
University of the Witwatersrand
7 York Road
Parktown
2193

Gauteng Dept of Health

Dear Sir/Madam,

Re: REQUEST TO CONDUCT RESEARCH AT THE JOHANNESBURG HOSPITAL

I am a registered student at the University of the Witwatersrand, in the Department of Nursing Education. I would like to ask for your permission to conduct research at the Johannesburg Hospital. I am currently studying for the degree of Masters of Science in Nursing (Intensive Care Nursing). I would like to conduct a study to determine the beliefs and attitudes of ICU Health Care Providers regarding visiting, visiting hours and open visiting in the adult ICUs at the Johannesburg Hospital. I will use a previously developed instrument to collect the data. Open visiting has been shown to be beneficial to critically ill patients, but an open visiting policy cannot be successfully adapted and implemented unless it is acceptable to the ICU Health Care Providers.

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I will commence my research once my proposal has been approved by the Committee for Research on Human Subjects, of the University of the Witwatersrand.

Yours faithfully,

Vivien Herbert
MSc Nursing Student



**DEPARTMENT
OF HEALTH**

Directorate: Policy Planning and Research
(Research & Epidemiology)

FROM: Kagiso Kesellwe

TO : Vivien Herbert

TEL. NO.: 011 355

TEL : 011 488 4675

3490/3477

FAX. NO:086 538 2979

FAX : 086 560 1552

MESSAGES: Research correspondence

Please find attached approval for your proposal.



PROVINCIAL RESEARCH COMMITTEE

RESEARCH EVALUATION FORM FOR APPROVAL BY THE HEAD OF THE DEPARTMENT

Researcher's Name	Ms V Herbst
Researcher's contact details:	MSc Fax: Cell: 0829748020
Research Topic	Open waiting policy: Beliefs and attitudes of intensive care clinics
Supervisor Name	Ms S Schmolderer, Dr G Langley
Date submitted:	27/11/2008
Date Reviewed	27/11/2008
Reviewer's name	Dr Y Kellie
Research Site(s)	Johannesburg Hospital
Type of research	Health Systems Research

SECTION A

	YES	NO	Comments
1. Is this research project within the scope of the Department of Health key policy priorities/directives?		☒	Care at tertiary level hospital - PHC level of care is a priority. The research is important to do so.
2. Content of Research			
Original work		☒	
• New facts/data			
• Confirmation of uncertain facts		☒	
• Repetition of known data and consequently of limited importance		☒	
• Unreliable and/or inadequate			
• Confusion of facts/questions			
• Intervention study		☒	
3. Is the title of the research project suitable?		☒	

4. Are the objectives of the research project adequate?	X	
5. Could the objectives be limited to either focus on the subject's main objectives?	X	
6. Writing style		
• The text of the proposal is clear	X	
• The terminology used is correct	X	
• The references used are relevant, comprehensive and accurate (corrected)	X	
• The spelling and grammar are correct	X	X
• The writing style needs improvement		
• The research proposal needs resending and rewriting		
7. Are the research methods appropriate to the study?	X	
8. Does the study have ethical approval?	X	Yes
• Yes, name the ethics committee		European Research Ethics Committee- University of the Witwatersrand
9. Is the definition and measurement of variables consistent with the scope of the proposal?	X	
10. Is data collection method in line with study design?	X	
11. Is the time frame of the proposal adequate to meet the objectives?	X	
12. Is it stated in the proposal the method of dissemination of the results of the research project?		X
13. Is the possible conflict of interests covered?		X
14. Are financial implications and financial support transparent?		

Section B: Proposal summary

The development of an appropriate visiting policy for ICU requires a need to find a balance between patients, family and ICU clinicians. Despite benefits to all stakeholders of open visiting, there is still controversy around implementing it; the study aims to explore the beliefs and attitudes about the visitation of the ICU clinicians to ensure that the vulnerable patients in their care receive the best care possible.

Objectives

1. To validate an existing instrument exploring ICU clinician's views on existing visiting hours and open visiting for use in the SA context.
2. To describe the beliefs and attitudes of ICU clinician's regarding visiting, visiting hours and open visiting in ICU.
3. To describe the differences in the beliefs and attitudes regarding visiting, visiting hours and open visiting in ICU.

Section C: REVIEWER 'S FINAL CONCLUSION

- Accept
- Researcher will be bound by the approval conditions in the Approval form.

The Reviewer

Dr Y Kolisa

Research and Epidemiology

Recommended/Not Recommended

Sue le Roux

Director, Policy, Planning and Research

Recommended/Not Recommended

APPENDIX J

**CORRESPONDENCE TO THE CEO OF THE HOSPITAL WHERE THE
STUDY WAS PERFORMED**

Department of nursing Education

Faculty of Health Sciences
University of the Witwatersrand
7 York Road
Parktown
2193

The Chief Executive Officer
Johannesburg Hospital
Jubilee Road
Parktown

Dear Mr Pillay,

Re: REQUEST TO CONDUCT RESEARCH AT THE JOHANNESBURG HOSPITAL

I am a registered student at the University of the Witwatersrand, in the Department of Nursing Education. I would like to ask for your permission to conduct research at the Johannesburg Hospital. I am currently studying for the degree of Masters of Science in Nursing (Intensive Care Nursing). I would like to conduct a study to determine the beliefs and attitudes of ICU Health Care Providers regarding visiting, visiting hours and open visiting in the adult ICUs at the Johannesburg Hospital. I will use a previously developed instrument to collect the data. Open visiting has been shown to be beneficial to critically ill patients, but an open visiting policy cannot be successfully adapted and implemented unless it is acceptable to the ICU Health Care Providers.

You have my assurance that I will respect all the participants. I will not divulge their names in my report. I will obtain written consent from all participants. A copy of the report will be made available to you, if you so wish.

I will commence my research once my proposal has been approved by the Committee for Research on Human Subjects, of the University of the Witwatersrand.

Yours faithfully,

Vivien Herbert
MSc Nursing Student



Phone: 011 488 4000, Fax: 011 488 4001
Tel: +27 (0) 11 488 4000, Fax: +27 (0) 11 488 4001
www.wits.ac.za



Gauteng Department of Health

OFFICE OF THE CEO

Enquiries: M. Morjolo

(011) 488-3785

086 520 0978

13 November 2008

To: Ms Vivien Herbert
University of Witwatersrand
7 York Road
Parktown
2193

RE: Permission to Undertake Research on the Open visiting Policy: Beliefs and Attitude of intensive Care Clinicians

Permission is granted for you to conduct the above research as described in your request provided:

1. Charlotte Maxeke Johannesburg Academic Hospital will not in anyway incur or inherit costs as a result of the said study.
2. Your study shall not disrupt services at the study sites.
3. Strict confidentiality shall be observed at all times.
4. Informed consent shall be solicited from patients participating in your study.

Please liaise with the Head of Department and Unit Manager or Sister in Charge to agree on the dates and time that would suit all parties.

Kindly forward this office with the results of your study on completion of the research.

I wish you success in your studies.

Yours sincerely

Sagie Pillay
Chief Executive Officer

APPENDIX K

**CORRESPONDENCE TO THE ORIGINAL AUTHORS OF THE BAVIQ
QUESTIONNAIRE**

From: Viv Herbert
Sent: Monday, December 08, 2008 11:53 AM
To: 'philip.moons@med.kuleuven'
Subject: Beliefs and Attitudes if ICU nurses towards visiting and open visiting policy.

Dear Philip Moons

My name is Vivien Herbert. I'm an ICU nurse at the University of the Witwatersrand in South Africa doing my Masters degree in Nursing Research.
I found your article about the Beliefs and Attitudes of ICU nurses towards visiting and open visiting policy very interesting. I would like to ask you for permission to use your instrument in South Africa to find out what the Beliefs and Attitudes of the staff in ICU here is.
My supervisors' names are Doctor G Langley and Sister S Smollgruber.

My e-mail address is: vw.herbert2@wits.ac.za
My Supervisors' e-mail address is: shelly.smollgruber@wits.ac.za

Thank you for your consideration

Vivien Herbert

This communication is intended for the addressee only. It is confidential. If you have received this communication in error, please notify us immediately and destroy the original message. You may not copy or disseminate this communication without the permission of the University. Only authorized signatories are competent to enter into agreements on behalf of the University and recipients are thus advised that the content of this message may not be legally binding on the University and may contain the personal views and opinions of the author, which are not necessarily the views and opinions of The University of the Witwatersrand, Johannesburg. All agreements between the University and outsiders are subject to South African Law unless the University agrees in writing to the contrary.

From: Philip Moons [mailto:Philip.Moons@med.kuleuven.be]
Sent: Monday, December 15, 2008 11:54 PM
To: Viv Herbert
Cc: dana.berti@uzleuven.be; patrick.ferdinande@uzleuven.be
Subject: RE: Beliefs and Attitudes if ICU nurses towards visiting and open visiting policy.

Dear Vivien,

Thank you for your interest in our study and in the BAVIQ. Please find attached both the BAVIQ and the questionnaire that we used to assess current visitation policy.

May I ask you to complete the "Use of BAVIQ information form", and return it to me by email? Permission to use the BAVIQ is granted.

I wish you good luck with your study.

Best regards,

Philip Moons

*Philip Moons, PhD, RN
Center for Health Services and Nursing Research
Catholic University of Leuven
Kapucijnenvoer 35/4
B-3000 Leuven
Tel: +32-16-336984 (direct) +32-16-336972 (secr.)
Fax: +32-16-336970
Email: Philip.Moons@med.kuleuven.be*
