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COMPARISON OF NURSES' AND FAMILIES' PERCEPTION OF FAMILY NEEDS IN INTENSIVE CARE UNIT AT A TERTIARY PUBLIC SECTOR HOSPITAL

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg in partial fulfilment of the requirements for the degree of

Master of Science in Nursing

Johannesburg, 2010

DECLARATION

I, Rodwell Gundo, declare that this research report is my own work. It is being submitted for the degree of Master of Science (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.....

Date.....

Protocol Number M081014

DEDICATION

To my parents, relatives and wife Beatrice, this is a dream come true because of your great perseverance and untiring support throughout the study period.

ACKNOWLEDGEMENTS

I thank God for the gift of life and all blessings during the study period.

I also owe the following people and organisation my sincere gratitude for their contributions in various ways:

- Malawi Government for providing a scholarship for this Masters Degree course through the Ministry of Health.

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- Professor Pieter Becker from Medical Research Council for his patience and significant statistical guidance during the project.

- All participants whose valuable input has made this project a success.

- Parents and all relatives for raising me and giving me hope in every endeavour.

- My wife Beatrice for her love, patience and untiring support during the study period.

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ABSTRACT

The purpose of this study was to elicit and compare nurses' and families' perception of family needs in intensive care unit. A quantitative non-experimental, comparative and descriptive research design was used to achieve research objectives. Participants (nurses, n= 65; family members, n= 61) were drawn from three intensive care units. Data were collected using a questionnaire developed from the Critical Care Family Needs Inventory (CCFNI). Descriptive and inferential statistics were used to analyze the data.

Majority (more than 50%) of both groups agreed with 42 out of 45 family need statements. All the nurses (100%, n=65) agreed with the need 'to have explanations that are understandable' while most family members (98%, n=58) agreed with the need 'to feel that health care professionals care about the patient'. Seven out of ten statements agreed by majority of both groups were similar. Most of these statements were related to assurance and information need categories. In addition, both groups scored high on the two categories, assurance and information. However, family members scored higher than nurses in two categories, assurance and proximity with statistically significant difference (p-value < 0.05).

Based on the research findings, it can therefore be concluded that generally there were similarities between nurses' and families' perception of family needs. These findings support evidence in literature resulting from previous studies.

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CHAPTER 1

OVERVIEW OF THE STUDY

1.0 INTRODUCTION

This chapter will provide an outline of the study. The outline is divided into separate but related areas namely, background to the study, problem statement, purpose of the study, research questions, objectives and importance of the study. An overview of research methodology used, validity and reliability of the study including ethical considerations are also presented.

1.1 BACKGROUND TO THE STUDY

Studies have revealed that relatives go through traumatic experience when a family member is admitted to intensive care unit (ICU). This is because relatives are not psychologically prepared for their patient's critical illness. Most of the admissions are unplanned and occur as emergencies (Hughes, Robbins & Bryan, 2004). This observation is supported by Pryzby (2005) who noted that families are caught off guard when critical illness strikes; as a result their life becomes disorganized and disrupted. The unfamiliar environment in the intensive care unit, with the patient tethered to equipment, also adds to the stress of family members.

The plight of family members has generated much interest in family care. A number of studies have been conducted to identify family needs in the intensive care unit. Using the Critical Care Family Needs Inventory (CCFNI), developed by Molten in 1979 and revised

by Leske in 1986, most studies have confirmed the following family need categories: information, assurance, support, closeness or proximity and comfort (Lee & Lau, 2003; Maxwell, Stuenkel & Saylor, 2007). Apart from these categories, findings from qualitative studies have reported additional needs: the need to protect the patient and the need to protect other family members (Agard & Harder, 2007; Eggenberger & Nelms, 2007).

Some studies on family needs have showed that nurses' and families' perceptions of family needs are generally similar (Bijtterbier, Vanoost, Delva, Ferdinande & Frans, 2001; Moggai, Biagi & Pompei, 2005). However, in one study by Maxwell, et al. (2007) it was observed that although nurses and families agreed on most needs, nurses considered family needs as insignificant and not frequently met. Consistent with these findings, studies conducted on family members in the intensive care unit observed that these needs were not met as expected by family members (Schmollgruber, 2002; Engstrom & Soderbeg, 2004). These findings suggest that family members are not satisfied with the quality of nursing care which negatively affects their coping styles during the critical situation and may have long term consequences on family functioning.

The shift from patient focussed nursing to a holistic approach demands nurses to consider patient and family members as indivisible. Since nursing care is provided throughout 24 hours of a day, nurses are better placed to help families meet their needs in the intensive care unit. Families may fail to adapt to the critical situation if they are not supported to meet their needs. Family members whose needs are met feel greater satisfaction with nursing care. This reduces stress and promotes their ability to participate in patient care which facilitates patient's recovery (Fox-Wasylyshn & El-Masri, 2005).

Through discussions with nurses, the researcher observed that some system changes have been introduced at the institution where the study was conducted. Visiting hours for family members have been restricted and visiting rooms have been taken up and turned into offices. These changes make it difficult for nurses to support family members with relatives admitted to the intensive care unit. This study therefore intends to elicit and compare nurses' and families' perception of family needs in the intensive care unit.

1.2 PROBLEM STATEMENT

A family is a unit. The illness of one member affects the entire unit. While it is important to engage in aggressive management of critically ill patients in the intensive care unit, nurses must reconcile this with family care. The frequent contact with family members in the intensive care unit gives nurses a unique position to support family members to meet their needs.

A review of literature by Verhaeghe, Defloor, Zuuren, Duijnstee & Grypdonck (2005) indicated that family members with relatives admitted to intensive care unit have needs related to information, assurance, closeness or proximity, comfort and support. However, these needs are neglected and not adequately met by nurses as expected by family members. Families feel sidelined, distressed and consequently dissatisfied with quality of nursing care (Engstrom & Soderbeg, 2004). In such cases, the patient's recovery is negatively affected and nurses risk litigation especially when family members do not accept the outcome of the patient.

In this study the researcher attempted to answer the following research questions:

- How do nurses perceive family needs in the intensive care unit?
- How do families perceive their needs in the intensive care unit?
- What is the comparison between nurses' and families' perception of family needs in the intensive care unit?

1.3 PURPOSE OF THE STUDY

The purpose of this study was to elicit and compare nurses' and families' perception of family needs in the intensive care unit.

1.4 RESEARCH OBJECTIVES

The objectives of this study were:

- To elicit nurses' perception of family needs in the intensive care unit
- To elicit families' perception of family needs in the intensive care unit
- To compare nurses' and families' perception of family needs in the intensive care unit.

1.5 IMPORTANCE OF THE STUDY

Literature reviewed by the researcher suggests that family needs are not adequately met by nurses as anticipated by family members (Engstrom & Soderbeg, 2004). The researcher also observed that some changes that affect family care have been introduced at the institution where the study was conducted. This study, therefore, sought to elicit and

compare nurses' and families' perception of family needs in the intensive care unit. By knowing what family members need, nurses would be able to support these families during critical illness. It is anticipated that findings of the study will help to improve quality of family care in these units. Nurses will be able to provide humane and dignified care to family members by considering their needs during critical illness.

Previous studies have reported that intensive care practice in sub-Saharan Africa is in an early stage of development with major limitations which require careful considerations (Towey & Ojara, 2007; 2008). It is hoped that the findings will be useful in the researcher's home country, Malawi, where intensive and critical care is also in the process of developing.

1.6 PARADIGMATIC PERSPECTIVES

A paradigm is a general view of the complexities of the real world (Polit & Beck, 2008). The researcher based the study on the following meta-theoretical, theoretical and methodological assumptions:

1.6.1 Meta-theoretical Assumptions

Assumptions are basic principles or statements that are taken for granted or believed to be true even without being scientifically tested (Burns & Grove, 2005). The researcher accepts General Systems Theory (Williams, Wilkinson, Stott & Menkes, 2008) from which the following assumptions were made:

Person

A patient is an open system which interacts with other systems such as his/her family, his/her employer, his/her nurse or his/her doctor and significant others. Being a patient represents disequilibrium of forces within his/her system, subsystems, between his/her system and the environment.

Health

Health is a degree of system stability in an individual. A state of wellness is characterised by a balance between systems achieving optimum bio psychosocial functioning of the individual. Contrastingly, a state of illness represents disorganisation of the individual's bio psychosocial systems.

Nursing

The common characteristic of all systems is their ultimate death at some point in future. Nursing endeavours to keep the patient system stable and move the margin between life and death further ahead. Nursing actions involve assessment of the patient's bio psychosocial functioning as a guide for determining priorities for intervention to restore and maintain equilibrium between forces within his/her system, subsystem or between his/her system and the environment. In other words, the nurse helps the patient during his/her dependent state for him/her to regain his/her independent functioning.

Environment

The environment constitutes internal and external factors which influence the patient's physiological, psychological and socio-cultural development and spiritual aspects. It

consists of stressors which threaten the patient/client system which could lead to illness or death.

1.6.2 Theoretical Assumptions

A theory is a set of concepts and relational statements which describe, explain, predict or control a phenomenon (Burns & Grove, 2005). The following theoretical assumptions based on Family Systems Theory (Leon & Knapp, 2008) are applicable to the study:

- Critical illness of a loved one is an overwhelming threat responsible for emotional crisis among family members
- Humans are adaptive systems which continuously interact with their internal and external stimuli. Nursing activities should be aimed at improving adaptive response to promote integrity of the system
- Holistic nursing practice involves caring for the total patient and inclusion of the family in the orbit of care
- A mutual nurse-family relationship recognises families' expertise, knowledge and skills in identifying and meeting their own needs
- Family members whose needs are effectively met have the ability to cope with a stressful situations and regain emotional equilibrium

The central theoretical statement of this study is that hospitalisation of a family member due to critical illness creates emotional challenges which disrupt normal functioning of the entire family. Apart from caring for the patient as a whole, inclusion of family members in the plan of care is an essential component of holistic nursing practice. This approach creates a win-win situation to the patient, families and intensive care nurses.

1.6.2.1 Operational definitions

For this study, the following technical terms were used:

Nurse – A person who has undergone nursing education and training and is registered by South African Nursing Council. The scope of practice of a nurse is defined by the South African Nursing Council scope of practice Regulation 2598 of 30th November 1991 (SANC, 2005). Intensive care or critical care nurses are nurses who have undergone additional training to deal with actual and potential life threatening conditions in an intensive care setting (Alspach, 2006). For the purpose of this study, only nurses working in the intensive care unit were invited to participate in the study. The words intensive care nurses and critical care nurses will be used interchangeably.

Intensive Care Unit (Also called Critical Care Unit) – A hospital unit in which specially trained professionals provide care to critically ill patients by using special equipment (Weller, 2001). It is a designated unit where patients with actual or potential life-threatening conditions are admitted for continuous monitoring by health care professionals. For the purpose of this study three intensive care units at a tertiary public sector hospital were used.

Family member – A family is defined as whomever a communicating patient defines as his or her family or anyone who shares history and a future with the patient who is unable to communicate (Schell & Puntillo, 2006). For the purpose of this study, a family member was a representative of the patient's family members looking after the patient.

Family needs – "A requirement, which if supplied, relieves or diminishes family distress or improves their sense of adequacy or well-being" (Leske, 1986:190). For the purpose of this study, family needs are needs of family members during their patient's admission to the intensive care unit.

Critical Care Family Needs Inventory (CCFNI) - A list of needs of families with a patient admitted to the intensive care unit, developed by Molter in 1979. There are 45 need items grouped into five categories labelled as needs for support, information, proximity, assurance and comfort.

1.6.3 Methodological Assumptions

Research is a systematic investigation to confirm or improve existing knowledge and generate new knowledge (Burns & Grove, 2005). Research in nursing enables nurses to describe, explain, predict and control a phenomenon which is essential to nursing practice (Polit & Beck, 2008).

This researcher recognises holistic nursing practice based on general systems theory as an essential component to nursing practice. A functional approach to nursing research generates knowledge which provides solid foundation for research-based care to patients and significant systems. This quantitative study was conducted to generate knowledge for nursing practice in the intensive care unit.

1.7 OVERVIEW OF RESEARCH METHODOLOGY

1.7.1 Research Design

A quantitative non-experimental, comparative and descriptive research design was used. According to Burns & Grove (2005) a comparative descriptive design is used to describe and examine differences in variables in two or more groups that occur naturally in a setting. An open ended question was also added to explore nurses' and families' opinions on family needs.

1.7.2 Population

The target population consisted of two groups, nurses and families of patients in the intensive care unit. A preliminary audit indicated a total of 136 nurses (N=136) working in the three units and an average of 127 patients (N=127) admitted per month.

1.7.3 Sample and sampling

A statistician was consulted to determine sample size. Non-probability convenience sampling method was used to identify a sample of 65 nurses (n=65) and 61 family members (n=61). Convenience sampling involves selection of cases available to the researcher until the desired sample is reached (Polit & Beck, 2008).

1.7.4 Data collection

Data were collected after obtaining permission from the participating institution. Data were collected using a questionnaire developed from Critical Care Needs Inventory (CCFNI). A statistician was consulted to determine during data analysis and interpretation of findings.

1.8 VALIDITY AND RELIABILITY OF THE STUDY

The study design and procedures stipulated in the protocol were adhered to by the researcher. Data were collected by the researcher only. A statistician from Medical Research Council was consulted before data collection, during analysis and interpretation of the data.

1.9 ETHICAL CONSIDERATIONS

The protocol was reviewed by the Department of Nursing Education to assess feasibility of the study. Permission to conduct the study was obtained from the University Postgraduate Committee for Research on Human subjects (Medical) of the University of Witwatersrand (Protocol number M081014) and the Chief Executive Officer of the participating institution. Permission to use the Critical Care Family Needs Inventory was also obtained.

Participants meeting inclusion criteria were invited to participate in the study. Informed consent was given by participants by signing consent forms to show their willingness to participate in the study. Code numbers instead of personal names were used and participants were allowed to withdraw anytime without a penalty.

1.10 SUMMARY

This chapter of the research report has provided an outline of the study. In this chapter the problem and research questions have been presented. The purpose, objectives and importance of the study have been discussed and the technical terms in the study defined. In addition, an overview of research methodology, validity and reliability of the study and ethical considerations have also been presented. The following chapters will include a review of literature, methodology, data analysis and description and interpretation of research findings. Finally, limitations of the study, a summary of research findings, conclusions and recommendations for further research will be presented.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The literature review relates to the needs of family members with patients in the intensive care unit. Families experience psychological distress when a relative is admitted to the intensive care unit. The change from patient-focussed nursing to a holistic approach which includes families in the orbit of care has generated great interest in family needs. This review of literature on family needs has been divided into distinct but related areas namely, psychological impact of critical illness on family members, the ICU environment as a source of stress, coping strategies among family members, caring in intensive care unit, family-centred care, family needs during critical illness and nurses' perception of family needs in intensive care unit.

2.2 PSYCHOLOGICAL IMPACT OF CRITICAL ILLNESS ON FAMILY MEMBERS

Family members' response to critical illness has been widely explored in nursing research. The admission of a family member to the intensive care unit generates stress response in both the patient and the family. The members experience a range of emotions which threaten the family's steady state of stability (Morton & Fontaine, 2009). The relatives are not psychologically prepared for their patient's admission to intensive care unit because most of the admissions are unplanned and occur as emergencies (Hughes, Robbins & Bryan, 2004).

The social responsibilities that were previously held by the patient in the family as a lover, mediator and friend among others are not present during the critical illness. A family crisis occurs which lead to havoc and grief among the family members (Morton & Fontaine, 2009). A study by Rodriguez & Gregorio (2005) on psychological adaptation in relatives of critically injured patients admitted to an intensive care unit showed that relatives experience emotional turmoil as a result of this traumatic situation characterised by feelings of dissatisfaction with life, agitation, guilt, anxiety, inferiority and uselessness.

The emotional responses by family members vary over time. Anderson, Anold, Angus & Bryce (2008) carried out a study on posttraumatic stress and complicated grief in family members of patients in the intensive care unit. In that study, anxiety and depression were measured at enrolment, 1 month and 6 months while posttraumatic stress and complicated grief were measured at 6 months. The results showed that anxiety and depression experienced by family members decreased over time. In addition, the families had signs of posttraumatic stress and complicated grief at 6 months.

Levels of these psychological problems are related to some factors which include demographic status. A study by Chui & Chan (2007) on stress and coping of Hong Kong Chinese families showed that high levels of stress were experienced by females, those with lower educational attainment and those whose relatives were admitted to ICU unexpectedly. These findings were also reflected in a review of literature by McAdam & Puntillo (2009) which reported that being a spouse, female and child significantly increased the risk for symptoms of anxiety, depression and posttraumatic stress disorders.

Other risk factors reported were low education status, the patient's unplanned admission to the intensive care unit and incomplete information in relation to the patient's condition.

2.3 THE ICU ENVIRONMENT AS A SOURCE OF STRESS

The intensive care unit is a designated unit in the hospital where patients with actual or potential life-threatening conditions are closely monitored by well trained health professionals. The environment consists of advanced facilities that are used to monitor patients.

The ICU environment is stress-provoking to both patients and family members. Generally, there is too much noise, bright light, bustling activity and physical disturbance in the environment which makes the ICU not a comfortable place (Bryan-Brown, 2007). In a study by Pang & Suen (2008) on stressors in the ICU, patients reported 'fear of death' as the top stressor. This was related to environmental stressors in critical care units which triggers the flight and fight response. The other stressors that were rated highly were 'being pressurised to consent to treatment', 'being in pain', and 'not knowing the length of stay in ICU'. These stressors negatively affect patients' experience of their stay in ICU.

There is growing evidence that family members focus their attention to the intensive care unit during critical illness of a loved one because the illness takes priority above other responsibilities (Verhaeghe, Defloor, Van Zuuren, Duijnstee & Grypdonck, 2005). However, some studies have shown that the family members find the ICU environment to be serious and dangerous because of advanced facilities. Eggenberger & Nelms (2007) conducted a qualitative study on family experience when an adult member is hospitalised

with critical illness. Participants of the study were 41 individual family members in a medical intensive care unit. The participants found the unfamiliar environment frightening and confusing with their patient tethered to sophisticated and intimidating equipment. On the contrary, other studies have reported that family members with a patient who is about to die find the high tech-environment very interesting. A study by Fridh, Forsberg & Bergbom (2009) showed that family members of a dying patient do not perceive the monitoring and medical-technical equipment as frightening. The relatives in that study found the patient's serious condition and his/her reliance on equipment more frightening than the equipment.

2.4 COPING STRATEGIES AMONG FAMILY MEMBERS

Coping refers to cognitive and behavioural efforts that are used to manage and overcome a stressful situation (Chui & Chan, 2007). Family members use different strategies to cope with critical illness and the admission of a relative to intensive care unit. A review of literature by Paul & Rattray (2008) on short- and long-term impact of critical illness on relatives reported that relatives use coping mechanisms such as enduring, suppressing anxiety, information seeking and focussing on the immediate.

Information seeking is a common strategy as reported by a previous study by Agard & Harder (2007) on relatives' experiences in intensive care unit. Findings showed that family members of critically ill patients used three major coping strategies: enduring uncertainty, putting self aside and forming personal cues. Enduring uncertainty as to whether the patient would survive or not involved waiting for information about the patient's diagnosis and prognosis. Putting self aside or distancing oneself was found helpful when information

about the patient's condition provided reassurance for brief moments. Forming personal cues also involved looking for answers and forming personal cues in the strange environment.

Other coping strategies used include divorce as a means of escaping from the situation, faith as a belief that God will take care of the family wherever necessary and also seeking social support (Verhaeghe, et al., 2005)

2.5 CARING IN INTENSIVE CARE UNIT

The Oxford dictionary defines nursing as a skill of caring for people who are sick or injured. Caring is therefore the reason behind the existence of nursing. As a scientific discipline and profession nursing is aimed at improving the living conditions and health of those being cared for (Nascimento & Erdmann, 2009).

Nursing research has generated great interest in the aspect of caring in intensive care unit. Different studies have been conducted to illuminate the caring component in intensive care unit. O'Connell & Landers (2008) conducted a study to compare the perceptions of nurses and relatives of critically ill patients on the importance of caring behaviours of critical care nurses. The sample included 40 nurses and 30 relatives in a critical care setting. The findings showed that both groups valued caring behaviours that are based on the professional's technical competence, altruistic and emotional aspects. Similar findings were reported in a similar study by Nascimento & Erdmann (2009) on dimensions of human care in ICU. Unlike the previous study, sample size in this study relatively smaller comprised six hospitalised clients, nine family members and ten professionals. Findings

showed that care consists of several aspects based on empathetic, sensitive, affectionate, creative, dynamic and understanding being in the totality of the human being. Supportive of these findings is another study by Wilkin & Slevin (2004) on the meaning of caring to nurses in ICU. The following themes emerged from the findings, concept of care, nurses' feelings, nurses' knowledge and nurses' skills.

In an effort to improve the quality of nursing care in intensive care unit, the American Association of critical care nurses developed the Synergy Model to guide nursing practice in ICU. The underlying premise of the model is that characteristics and competencies of nurses are influenced by characteristics and competencies of the patient and the family members (Morton & Fontaine, 2009). The use this model by critical care nurses helps to transform the technical and impersonal setting of the ICU into a humane and healing place (Kelleher, 2006).

However, nurses regard the intensive care unit as having many performance obstacles. In a qualitative study by Gurses & Carayon (2009) on performance obstacles of ICU nurses, the participants reported obstacles related to the environment, family relations and equipment. The presence of technology in the ICU threatens the caring component of nursing. Inadequate space, noises from the equipment and unavailability of supplies are some of the obstacles related to the environment and equipment. Nurses also regard family members as obstacles to quality care due to lack of social workers who could address some of the family problems. In addition, physicians do not spend ample time with families as a result most of the questions are directed to the nurses. Similar findings were reported previously by Santos (2007) in a study on nurses' attention demands in a work setting. Demands related to caring for families were among the highly scored sources of attention demands.

2.5.1 FAMILY-CENTRED CARE

Family members are at great risk for maladaptation during critical illness of a relative. Their separation from critical care may aggravate their anxiety and stress. Nurses' caring behaviour using a blend of skills, knowledge and caring attitudes helps to reduce the stress experienced by families (Pryzby, 2005). Family-centred care is a notion which acknowledges that patients are part of a larger 'whole'. This belief requires critical care nurses to recognise the importance of including patients' families in the circle of care (Morton & Fontaine, 2009).

Nursing research shows that working with families has a positive impact on the quality of care. The involvement of families creates a win win situation to the patient, families and nurses (Leon & Knapp, 2008). In a qualitative study by Olsen, Dysvik & Hansen (2009) on the meaning of family members' presence during intensive care stay, participants (patients) reported that family presence was supportive. They felt good to know that family members care for them. This was represented by feelings of help, safety and comfort among the patients.

Nurses also regard families as productive in the ICU. William (2005) conducted a study to identify the unique contribution that family members make towards patient care and recovery. Themes that emerged from the findings included 'getting to know the patient through the family' and 'family's contribution to patient care'. Participants (nurses) noted that it was challenging for them to know their patient better because they were either intubated or sedated. Contact with families helped them to know the person under their

care. Apart from providing information about the patient, families also help to provide emotional support to the patient.

Families are therefore an important asset in ICU. In order to maximise their contribution to critical care they need support from the nursing staff. Nursing research has identified needs of families during critical illness of a relative in ICU.

2.6 FAMILY NEEDS DURING CRITICAL ILLNESS

The original work on family needs was done by Nancy Molter. A list of need statements was developed through a literature review and a survey of 23 graduate students (Molter, 1979). In the previously cited study, the investigator read out the need statements to participants who were asked to respond by indicating the level of importance of each need. Results showed that the need “to feel there is hope” was ranked as most important while the need “to talk about negative feelings such as guilt or anger” was rated least important.

The order of the need statements was then revised which led to the development of Critical Care Family Needs Inventory (CCFNI). The instrument was used in a follow-up study on needs of relatives of critically ill patients. Consistent with Molter’s work, results of that study demonstrated that the need “to feel there is hope” was also ranked highly. However, there were differences on how the other needs were rated (Leske, 1986).

A review of literature by the researcher indicated that subsequent studies using CCFNI have confirmed the five need categories, the need for support, comfort, information, proximity and assurance (Lee & Lau, 2003; Maxwell, et al., 2007).

2.6.1 Need for information

Relatives have a need to know what happened to the patient, the condition of the patient, and what might happen to the patient (Verhaeghe, et al., 2005; Agard & Harder, 2007). The need for information is considered important by families. Information emerged as most important factor in a study conducted by Bijttebier, Vanoost, Delva, Ferdinaide & Frans (2001) on relatives', physicians' and nurses' perceptions of needs of relatives of critical care patients.

Information affects the family member's emotions in both negative and positive ways. Different studies on the prevalence of families' psychological problems showed that incomplete information is among risks factors for development of anxiety, depression and posttraumatic stress disorder in relatives of a critically ill patient (Auberbach, Kiesler, Wartela, et al., 2005; McAdam & Puntillo, 2009). Information that is accurate, complete and comprehensible help to relieve negative feelings and facilitates the development of realistic hope among family members (Verhaeghe, Van Zuuren, Defloor, et al., 2007). Consistent with these findings, a study by Soderstrom, et al. (2009) on family adaptation in relation to family member's stay in ICU indicated that information is necessary for the family's adaptation to critical illness. Inability to receive supportive unambiguous information may lead to the family's maladaptation during the patient's ICU stay and after discharge.

2.6.2 Need for assurance

Some studies have demonstrated that the need for assurance is also ranked highly by family members. In a study by Lee & Lau (2003) family members of adult intensive care patients in Hong Kong ranked highly the need for assurance (mean=3.7). The sample size comprised 40 adult family members of patients in adult ICU. Data were collected within 24-72 hours of patients' admission. These findings were replicated by Al-Hassan & Hweidi (2004) with a larger sample of 158 Jordanian family members who were visiting their hospitalized, critically ill relatives. The participants ranked needs related to assurance highly. A more recent study was conducted by Omari (2009) in the same country with a convenience sample of 138 families. The results showed that the needs that were highly rated were also related to assurance and information category.

A review of literature by Verhaeghe, et al. (2005) indicated that the need for assurance is most common among families of trauma patients and neuropatients. The articles that were reviewed were published between 1970 and January 2004. Assurance about the patient's condition helps to reduce anxiety and concerns of family members (Chien, Chiu, Lam & Ip, 2006) and also gives the family a sense of trust in the caregiver (Morton & Fontaine, 2009).

2.6.3 Need for comfort

The review of literature by Verhaeghe, et al. (2005) identified practical needs as what constitutes the need for comfort. These needs concern the family member's feeling of comfort which include waiting room with a telephone, comfortable furniture among others.

Most studies using the CCFNI have showed that the need for comfort is ranked lower by family members. In the previously cited studies by Lee & Lau (2003), Al-Hassan & Hweidi (2004) and Omari (2009) the need for comfort was ranked fourth by family members. According to Agard & Harder (2007) relatives give priority to the needs of the patient as compared to their own. However, Al-Hassan & Hweidi (2004) observed that the low score on comfort could be attributed to the CCFNI's focus on physical aspects of comfort omitting the mental, spiritual or social aspects.

2.6.4 Need for support

A study by Johansson, Fridlund & Hildingh (2005) on what relatives of critically ill next-of-kin in intensive care unit regarded as supportive showed that relatives perceived empowerment by means of internal and external resources as supportive. In order to accomplish this, relatives reported the need to trust in oneself, to be supported as a person and a relative and to feel considered by health professionals. Consistent with this are findings of a study conducted by Eggenberger & Nelms (2007) on family experience when adult member is hospitalised. Participants reported that "being a family" by coming together as a family is what keeps them strong during hospitalisation of a relative.

However, previous studies using CCFNI have showed that the need for support is also ranked lower by family members (Lee & Lau, 2003; Al-Hassan & Hweidi, 2004 & Omari, 2009). After reviewing articles published between 1970 and January 2004, Verhaeghe, et al. (2005) noted that these social needs are equally important but they are lowly ranked because the family prioritise the needs of the patient.

2.6.5 Need for closeness or proximity

Relatives want to be by the bedside with the patient at all times where they would be able to seek information and have a chance of helping the patient (Engstrom & Sodernberg, 2004; Agard & Harder, 2007). Nursing research has shown that family presence at the bed side helps to reduce anxiety experienced by the patient and the family. Morton & Fontaine (2009) noted that families provide social support to the patient. Consistent with this are findings of another study on the meaning of family members' presence during intensive care by Oslen, et al. (2009). Participants (ICU patients) preferred close relatives' visits which played a variety of functions including support for the patient and the family as well.

The need for closeness or proximity is highly favoured among relatives of a dying patient. In the previously cited study by Fridh, et al. (2009) relatives reported the need to be close to the dying person when they understand the seriousness of the condition. Even if the patient was unconscious, relatives tried to establish contact with the patient believing that s/he was aware of their presence.

2.6.6 Other family needs

Qualitative studies on family needs have identified additional needs: the need to protect the patient and other family members (Agard & Harder, 2007; Eggenberger & Nelms, 2007). The two studies reported that family members felt the need to protect the patient by ensuring trusted nursing care and making the right decisions. They protected the patient from stress by avoiding sharing their worries and fears with the patient. They also felt

empathy for fellow family members and watched each other in order to be protected from threats of the experience.

2.7 FAMILY NEEDS AND DEMOGRAPHIC CHARACTERISTICS

Some demographic data of family members influence their perception of these needs. Generally, females rate most of the needs higher than males (Bijttebier, et al., 2000; Lee & Lau, 2003 & Chien, et al., 2005). In the study by Bijttebier, et al. (2000) on reliability and validity of the Critical Care Family Needs Inventory in a Dutch-speaking Belgian sample, a negative correlation was noted between level of education and need scores. Participants with higher education scored lower than those with low education. However, a positive correlation was reported with respect to support and assurance constructs. Participants with low education scored lower on the two constructs than those with higher education.

2.8 NURSES' PERCEPTION OF FAMILY NEEDS IN INTENSIVE CARE UNIT

Nurses are better placed to help families meet their needs because nursing care is provided throughout 24 hours of a day. Much as it is important to aggressively manage the critically ill patient, nurses must reconcile this with family care. However, Pryzby (2005) observed that achieving this holistic approach, which includes families in the orbit of care, depends on nurses' attitudes towards family care.

Different studies have been conducted to assess nurses' perception of family needs in an intensive care unit. Takman & Severinsson (2004) observed that there are different views on family needs among nurses working in ICU. In that study, views on the needs of

significant others were grouped into four factors: the need to meet professionals who are sensitive to significant others when informing and listening, the need to take care of themselves, the need to know what is going on, and the need for continuity and information about a hospital's staffing structure.

Findings of the previously cited study by Takman & Severinsson (2004) indicated that registered and enrolled nurses considered as important the families' need to meet professionals who are sensitive when informing and listening to significant others, the need to take care of themselves, and the need to know what is going on. However, there were differences on the need for continuity and information about hospital staffing structure. Unlike registered nurses, enrolled nurses considered this need as also important.

Nurses' experience in ICU influences their ability to identify family needs. Takman & Severinsson (2005) reported that information and predictability were rated highly by nurses with more ICU and professional experience than those with less experience. On the other hand, involvement of family members in patient care was considered most important by nurses with experience of being a patient or significant other in an ICU as compared to nurses with no such experience.

In a review of literature on family needs, Verhaeghe, et al. (2005) observed that the amount of experience of the nurses in ICU correlates negatively with their ability to assess needs of family members. It was noted that nurses with more experience in ICU are less able to assess needs of family members. These findings may reflect that more experienced nurses make assumptions instead of assessing needs of family members. However, a study by

Moggai, Biagi & Pompei (2005) on comparison of relatives' and nurses' perception of needs of relatives showed no relationship between nurses' experience and perceived needs.

A review of literature by Davidson (2009) noted that nurses fail to predict needs of family members and the need for information and proximity are often unmet. Consistent with this, a study by Schmollgruber (2002) on professional support needs of culturally diverse families of critically ill adult patients showed that family needs are not met as expected by the family members. According to Stayt (2007), failure by the nurses to implement family care in ICU is attributed to the nurses' lack of confidence in approaching families as well as practical limitations which include time constraints, inadequate resources and inadequate training on family care.

Using the CCFNI few studies have gone further to compare nurses' and families' perception of family needs. Results of these studies have demonstrated that nurses' and families' perceptions are generally similar (Bijttebier, et al., 2001; Moggai, et al., 2005). In another study, Maxwell, Stuenkel & Saylor (2007) observed that although nurses and families agreed on some needs, nurses considered family needs as insignificant and not frequently met.

2.9 SUMMARY

Family members go through a traumatic experience when a member of the family is critically ill and admitted to an intensive care unit. The unfamiliar ICU environment, with their patient tethered to different equipment, worsens the stress experienced by family members.

Nurses have a great responsibility to help families meet their needs during critical illness. This helps to reduce stress and promotes families' ability to give support to their patient which facilitates the patient's recovery. On the contrary, inconsistency in meeting these needs aggravates the psychological distress experienced by the families.

Previous quantitative studies on family needs used the Critical Care Family Needs Inventory (CCFNI). The instrument was originally developed by Molter and revised by Leske (Molter, 1979 & Leske, 1986). Studies using this instrument have confirmed the following need categories: information, proximity, comfort, assurance and support. Qualitative studies have also revealed an additional need to protect the patient and other family members. Generally, nurses and families hold similar perceptions of family needs. However, family members are not adequately supported to meet their needs.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter, the research methodology will be presented. This includes research design, setting, population, sample and sampling, data collection, instrument used including its reliability and validity, ethical issues which were taken into account, validity and the reliability of the study.

3.2 RESEARCH DESIGN

A research design is a researcher's overall plan for obtaining answers to research questions. The researcher spells in advance plans and strategies to obtain accurate and interpretable information (Polit & Beck, 2008). In this study, a non-experimental descriptive and comparative design was used.

Non-experimental design – A non-experimental design is a type of quantitative research designs applicable in situations where it is unethical and inherently difficult to manipulate the independent variable (Polit & Beck, 2008). This design was appropriate because the study was conducted in a natural setting where no experimental treatment or interventions were administered.

Descriptive design – Descriptive research involves observing, describing and documenting aspects of a situation (Polit & Beck, 2008). The study was descriptive as it aimed at describing nurses' and families' perception of family needs in intensive care unit.

Comparative design – A comparative design is used to examine differences in two or more groups that occur naturally in a setting (De Vos, Strydom, Fouche & Delport, 2005). This study was comparative as it aimed at comparing nurses' and families' perception of family needs in the intensive care unit.

3.3 RESEARCH SETTING

Research setting is defined as a site for conducting research (Burns & Grove, 2005). This study was conducted in three intensive care units at an academic tertiary public sector hospital. The bed occupancy rate for the three intensive care units is approximately 130 patients per month. ICU A admits trauma patients who are either victims of motor vehicle accidents or have gunshot wounds. ICU B admits an overlap of trauma, surgical and medical emergencies. ICU C admits patients who have undergone cardiac operation. These ICUs are considered 'closed units'. As such, all patient care is provided under supervision and direction of an intensivist. They are specialist doctors who hold additional qualification in the speciality of intensive care medicine. Being academic tertiary units, all the units have access to clinical instructors.

Nursing staff consists of both nurses who are trained in critical care nursing and those who are not, but do hold a general nursing qualification. Nurse-patient ratio in all the ICUs is one nurse to one patient. All the ICUs follow a standardised hospital visiting policy which

allows family members to visit their patients once a day between 3 and 5pm. This has recently been introduced by the hospital's management team with support from the Department of Health. Children under the age of 12 years are not allowed nor encouraged to visit patients.

3.4 POPULATION

Population is a set of individuals or objects with common characteristics (Polit & Beck, 2008). The target population in this study consisted of two groups: nurses and families of patients in intensive care units at a tertiary public sector hospital. A preliminary audit indicated a total of 136 nurses working in these units and approximately 1527 patients admitted during the period of 1.01.2008 to 31.12.2008. This is an average of 127 patients admitted to the intensive care units per month.

3.5 SAMPLE AND SAMPLING

Sample is a subset of the population that is selected for a particular research (Burns & Grove, 2005). Following consultation with a statistician, the sample size was based on the fact that a difference between nurses' and families' perception of family needs constituted a difference of more than 10% for any of the five categories i.e. support, information, closeness or proximity, assurance and comfort. A sample size of at least 60 subjects (either nurse or family member answering on behalf of the family) per study group would have the power in excess of 90% to detect the difference of 10% where the standard deviation was assumed to be 16.7% (range/6 = 100/6 = 16.7%). The sample comprised 126 (n=126) participants, who were divided into two groups, namely nurses and family members.

Sampling method is the process of selecting a group of people, events or elements that are representative of the population that is being studied (Burns & Grove, 2005). In this study, non-probability convenience sampling method was used to identify a sample of 65 (n=65) nurses in group one and 61 (n=61) family members in group two. Convenience sampling involves selection of cases available to the researcher until the desired sample is reached (Polit & Beck, 2008). A total of 24 nurses and 23 family members were drawn from ICU A, 21 nurses and 21 family members were drawn from ICU B while 20 nurses and 17 family members were drawn from ICU C. These are outlined in **table 3.1**

Table 3.1: Composition of participants that were sampled in the study (n=126)

Intensive Care Unit	Nurse Participants (n=65)	Family Participants (n=61)
ICU A	24	23
ICU B	21	21
ICU C	20	17
Total	65	61

3.5.1 Eligibility criteria for nurses

Eligibility criteria are defined as criteria for assigning specific characteristics of the target population by which people are selected for inclusion in a study (Polit & Beck, 2008). In the first group, nurses were required to be registered by South African Nursing Council, working in ICU A, B or C and provided written consent.

3.5.2 Eligibility criteria for family members

In the second group, participants were required to be designated family members. One family member was identified per patient during the patient's stay in ICU. The participants were aged 18 and above, who were able to communicate in English regardless of being white or black. The researcher was limited by being a foreigner and not being able to speak or understand other South African languages.

3.6 DATA COLLECTION

Data collection is a systematic gathering of information relevant to the research purpose or specific objectives of the study (Burns & Grove, 2005). Data collection was conducted over a three month period extending between January 2009 and March 2009.

3.6.1 Procedure

After receiving approval from the institution, data were collected from three intensive care units. Participants who met the inclusion criteria were invited to participate in the study. Each participant (nurses and family members) was given an information sheet containing details of the study (refer to **Appendix B and C**). The participants were given time to read and understand the information letter before giving consent to participate in the study. Written permission was obtained from participants by use of a consent form (refer to **Appendix D and E**) to indicate their willingness to participate in the study.

3.6.2 Data Collection Instrument

In this study, one research questionnaire was used, which comprised of two sections (refer to **Appendix F and G**). Part one, the demographic data of participants (nurse or family member) and part two, the family need statements. In addition, one open ended question was added at the questionnaire.

Development of the questionnaire was based on literature review, the Critical Care Family Needs Inventory (CCFNI) developed by Molter in 1979. In this study a review of literature, comprising old and recent studies, was done to get more information about this instrument and assess its suitability for the study.

Part one of the questionnaire comprised of items to elicit the participant's demographic data. In the nurses (group one) sample, six (6) items used included age, gender, professional category, education and training, followed by years of experience in critical care units. In the family member (group two) sample, eight (8) items used included age, gender, home language, population group, level of education, relationship to patient, date of ICU admission and previous critical care experience.

Part two of the questionnaire comprised forty five (45) items to elicit participants' responses in extent of agreement or disagreement against the listed items. These statements were related to family needs derived from the Critical Care Family Needs Inventory (CCFNI). A typical question asked was 'To have explanations of the environment before going into the ICU for the first time'. The responses were noted on a 4-point Likert scale, and the scoring was coded as strongly disagree (1), disagree (2), agree (3) and strongly

agree (4). Participants with a score of 3 and above were considered as agreement and participants with a score of below 3 were considered disagreement. In addition, the 45 items formed five (5) categories: support (items1 to 14), information (items 15 to 23), proximity or closeness (items 24 to 32), assurance (items 33 to 39) and comfort (items 40 to 45). The responses in this section were summed and the mean was calculated to pave way for the calculation of inferential statistics. The scale had a total score ranging from 45 to 180.

In this study one open ended question was added at the end of the questionnaire. The researcher expected that the questionnaire would invoke a reflection on experiences of family members in the intensive care unit. The open ended question was therefore necessary to allow participants an opportunity to identify additional needs.

The same questionnaire was administered to each group of participants (refer to **Appendix F and G).** In each respective unit, nurses were approached by the researcher during handover, tea or lunch break. This is because the researcher did not want to interrupt their work schedules. In the second group, family members were during visiting time between 3 and 5 pm. The researcher approached the family members in their waiting room or at the bed side. The questionnaires were administered by the researcher. Participants were expected to complete the questionnaires and the researcher was available to clarify areas that were not clear to participants.

3.6.3 Reliability and Validity of the Data collection instrument

The Critical Care Family Needs Inventory (CCFNI) was first developed by Molter in 1979 and revised by Leske in 1986. The initial CCFNI was constructed using two methods: a review of literature and consultation with a panel of 23 graduate students (Redley & Beanland, 2004). It is a questionnaire with 45 items rated on a four point scale and categories of support, comfort, information, proximity and assurance (Holden, Harrison & Johnson, 2002; Chien, et al., 2005). The instrument has been translated into different languages to suit different countries with different languages. As such, it has been used widely and extensively in nursing research in both, first and third world countries.

Strength of the instrument

Many studies using Critical Care Family Needs Inventory (CCFNI) have reported similar results. This has added support for validity of the tool (Holden, et al., 2002). In a study by Bijttebier, et al. (2000) on psychometric evaluation of the Dutch version of the CCFNI with Dutch speaking Belgian families, findings revealed satisfactory internal consistency ranging from 0.62 to 0.80. However, the sample in this study was drawn from one geographical area with similar socioeconomic environment and health services provided. It can therefore be suggested that this similarity influenced participants' perception of family needs during critical illness.

A similar study was conducted by Chien, et al. (2005) to examine psychometric properties of a Chinese version of the CCFNI. The results also demonstrated a satisfactory internal

consistency ranging from .80 to .92. The principal factor analysis supported the presence of five factor structures namely, information, comfort, support, assurance and proximity.

Weakness of the instrument

The fact that this instrument was developed with consultation of a panel of students, content validity is questionable because the concerned family members were not consulted. According to De Vos, et al. (2005) content validity relates to the sampling adequacy of the subject that is being measured. Consistent with this, findings of qualitative studies on family needs have shown that the tool omits family members' need to protect the patient and other family members (Agard & Harder, 2007; Eggenberger & Nelms, 2007).

The Critical Care Family Needs Inventory ignores family members who are unable to visit the intensive care unit (Verhaeghe, et al., 2005). It was also reported by Lee & Lau (2003) that expressed needs are different among family members of different gender, experience of visiting the intensive care unit, religious background and characteristics of patients. This shows that generalisation of findings of studies using the instrument should be done with caution.

3.7 PILOT STUDY

A pilot study was conducted prior to commencement of the main study from 15/12/2008 to 30/12/2008. The pilot study was to simulate the main study, but on a smaller scale. The data collection questionnaire was used on eight (8) participants (four nurses and four family members) in the intensive care units at the selected study site. The participants who

met the inclusion criteria were included in the study. Ethical considerations were followed after participants were identified.

The instrument that was used in the current study has been used extensively in first and third world countries. The purpose of the pilot study was to identify any possible difficulties that may be encountered during the study, in order to make changes to the data collection questionnaire if necessary. Participants indicated that the language was understandable and no recommendations were made to change the instrument. Each participant took an average of 15 to 20 minutes to complete the questionnaire.

Results of the pilot study were not included in the main study which followed after the pilot study. This was done in consultation with the statistician.

3.8 ETHICAL CONSIDERATION

According to Burns & Grove (2005), the conduct of research requires not only expertise and diligence but also honesty and integrity. Ethical research is essential to generate sound knowledge for practice, while protecting the rights of human subjects. Ethical review and clearance is necessary to ensure a balance between benefits and risk of a study and prevent research misconduct. As such the following ethical considerations were applied in the study:

- The protocol was submitted to the Department of Nursing Education for peer review and assessment of the feasibility of the proposed study.

- The protocol was submitted to the university postgraduate committee for approval. Permission was obtained (refer to **Appendix H**).
- The protocol was submitted to the Committee for Research on Human subjects (Medical) of the University of Witwatersrand for clearance to conduct research. Permission was obtained (refer to **Appendix I**).
- Permission was obtained to use the Critical Care Family Needs Inventory (CCFNI) (refer to **Appendix K).**
- Permission was obtained from the Chief Executive Officer of the participating institution to have access to the institution (refer to **Appendix J**).
- Participants signed consent forms to show their willingness to participate in the study (refer to **Appendix D and E**).
- Code numbers instead of personal names were used during data collection and reporting to protect confidentiality and anonymity of participants.
- Participants were allowed to withdraw at anytime without a penalty.
- An information letter accompanied the data collection tool to inform the participants about the purpose of the study (refer to **Appendix B and C**).
- Only the researcher has access to the data which will be stored until final submission of the research report.

3.9 VALIDITY AND RELIABILITY OF THE STUDY

In this study validity and reliability were ensured by using an instrument, Critical Care Family Needs Inventory which has been used previously in similar studies (Holden, et al., 2002). The researcher did not deviate from procedures that were stipulated in the protocol.

The use of two groups of participants helped to verify consistency of the data collected. Data collection was done by the researcher only. Finally, the researcher consulted a statistician before data collection, during data analysis and interpretation of the findings to make sure that accurate statistical conclusions are made.

3.10 SUMMARY

This chapter has presented research methodology. This included research design, setting, population, sample and sampling, data collection, instrument used including its validity and reliability, ethical issues and validity and reliability of the study. The following chapters will present data analysis and discussion of the results.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 INTRODUCTION

The previous chapter presented the research methodology applied in the study. This chapter describes the approach that was used for data analysis and interpretation of the findings. Data were collected from two groups of participants, nurses (n=65) and family members (n=61). Raw data were entered onto a Microsoft Excel spreadsheet. Errors were verified and corrected. The data were then imported to a software statistical package 'STATA version 10' by a statistician for data analysis.

Descriptive statistics were used to report the results to address the first two study objectives. Descriptive tests, frequencies (f), percentages (%), ranges, means and standard deviations (SD) were used to describe demographic data and summarise responses to each item on family needs. Tables, pie chart and bar graphs were used to present the results for easy interpretation.

Inferential statistics were used to address the third study objective. The following statistical tests were used: Fisher's exact test, two sample *t*-test and Cronbach's reliability alpha. Fisher's exact test is a statistical procedure used to test the significance of the difference in proportions used when the sample size is small (Polit & Beck, 2008) while *t*-test is a parametric analysis technique used to determine significant difference between measures of two samples. Testing was done at 0.05 level of significance (p=0.05). Findings will be discussed on the level of need statements and their categories.

4.2 APPROACH TO DATA ANALYSIS

The sample size was determined after consulting a statistician. The size was based on the fact that a difference between nurses' and families' perception of family needs constituted a difference of more than 10% for any of the five categories, that is, support, information, closeness or proximity, assurance and comfort. A sample size of at least 60 participants in each group (nurses= 65, family members= 61) was used to ensure a power in excess of 90% to detect this difference of 10% where standard deviation was assumed to be 16.7% (range/6 = 100/6 = 16.7).

Descriptive statistics (frequency, percentage, mean, median, range and standard deviation) were used to summarise demographic data and responses to the need statements on a Likert scale. According to Burns & Grove (2005), descriptive statistics help the researcher to sort out data in a way that gives meaning and insight. Where necessary, the 4-point Likert scale was collapsed to two levels, disagree and agree. Strongly disagree and disagree formed the disagree level while strongly agree and agree formed the agree level. The need statements were also assigned numbers, one to forty five. This was done for easy presentation and interpretation of the findings.

Frequencies, percentages and cross-tables were used to summarise responses to each need statement. Fisher's exact test was applied to investigate significance of difference between frequencies of responses by different groups in relation to need statements in each category. Fisher's exact test is appropriate for a small sample where elements originate from two sources (Kanji, 2006).

Two statistical tests were used to compare mean scores across different groups with respect to the need categories (support, information, proximity or closeness, assurance and comfort). Two sample *t*-test was applied to compare nurses' and families' mean scores. This test was appropriate because it is applicable in cases where the researcher intends to compare mean patterns of two measurements which yield multivariate result (Kanji, 2006).

Furthermore, Cronbach's alpha or coefficient alpha was calculated to examine reliability of the measuring tool with respect to the five need categories (support, information, closeness or proximity, assurance and comfort). Reliability is defined as a degree of consistency or the level of accuracy with which an instrument measures an attribute under investigation. The higher the reliability coefficient the more accurate is the measure (Polit & Beck, 2008). In this study the internal consistency of the five categories was expressed by Cronbach's alpha between 0.65 and 0.90. Although the recommended minimum alpha is 0.70 these values suggest that the instrument was reliable.

In this study, all figures with decimals were rounded off to two decimal places for ease of presentation. Responses to the open ended question were grouped into the existing need categories, support, information, proximity or closeness, assurance and comfort.

4.3 RESULTS AND ANALYSIS OF FINDINGS

4.3.1 Questionnaire Part 1: Nurses' Demographic Data

The first part of the questionnaire comprised six (6) items related to nurse participants. These items included age gender, professional category, and training in critical care nursing. A total of 65 (n=65) nurses from three intensive care units (A, B and C) were included in the sample.

Age

Of the total 65 (n=65) nurses, 3.08% (n=2) did not indicate their age. The age range for the other 63 (n=63) nurses was from 21 to 52 years of age, with a mean of 37.70 and Standard Deviation (SD) of 6.79. A majority (52.3%; n=33) were in the age group of 31 to 40 years, followed by 27.0% (n=17) in the age group of 41 to 50 years, 17.5% (n=11) were between 21 to 30 years and 3.2% (n=2) were within the age group of 51 to 60 years. The results are presented in **Figure 4.1** below.

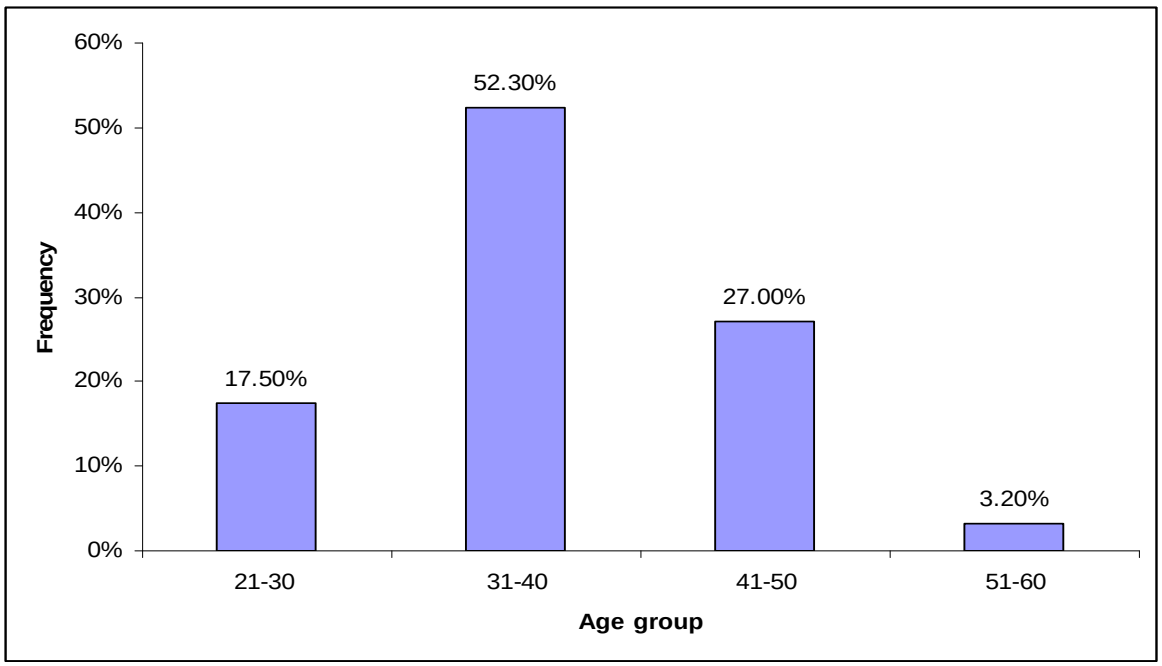


Figure 4.1: Nurses' age

Gender

It was also noted that 1.54% (n=1) did not indicate gender. A majority (81.25%; n=52) were females and 18.75% (n=12) were males. This distribution was similar to previous studies on family needs conducted in western countries where female nurses dominated the sample population (Moggai, et al., 2005). Findings are presented in **Figure 4.2** below.

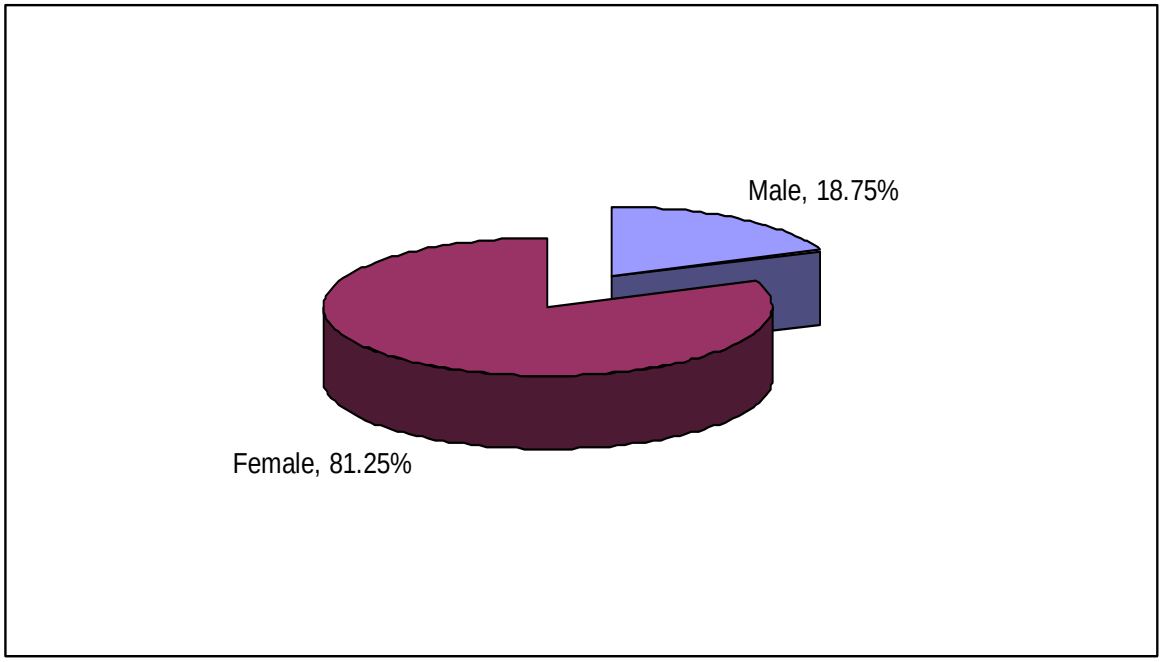


Figure 4.2: Nurses' gender

Professional category and training

Registered nurses accounted for 95.38% (n=62) and enrolled nurses for 4.62% (n=3). In terms of training, 1.54% (n=1) did not indicate their status. Of the 64 nurses, 54.69% (n=35) were trained in intensive care nursing while 45.31% were not. Findings are presented in **Table 4.1** below

Table 4.1: Professional category and training of nurses

ITEM	Demographic Variable	n = 65	Percentage
1.1	Research Code	-	-
1.4	**Professional Category:**		
	• Registered Nurse	62	95.38
	• Enrolled Nurse	3	4.62
1.5	**Critical Care Training:**		
	• Trained	35	54.69
	• Non trained	29	45.31

Experience

Majority (62.5%; n=40) had experience of less than five years, 18.75% (n=12) had 5 to 10 years experience and the remaining 18.75% (n=12) had more than 10 years of experience. The negative correlation between the number of nurses and their years of experience may indicate problems in retaining experienced nurses in intensive care units at the institution. This is in contrast to similar studies conducted overseas (Italy and United States). A study by Moggai, et al. (2005) reported that 51% of their sample had more than six years of experience. A similar study by Maxwell, et al. (2007) indicated that 43% of the sample had 20 or more years of experience. These findings are presented in **Figure 4.3** below

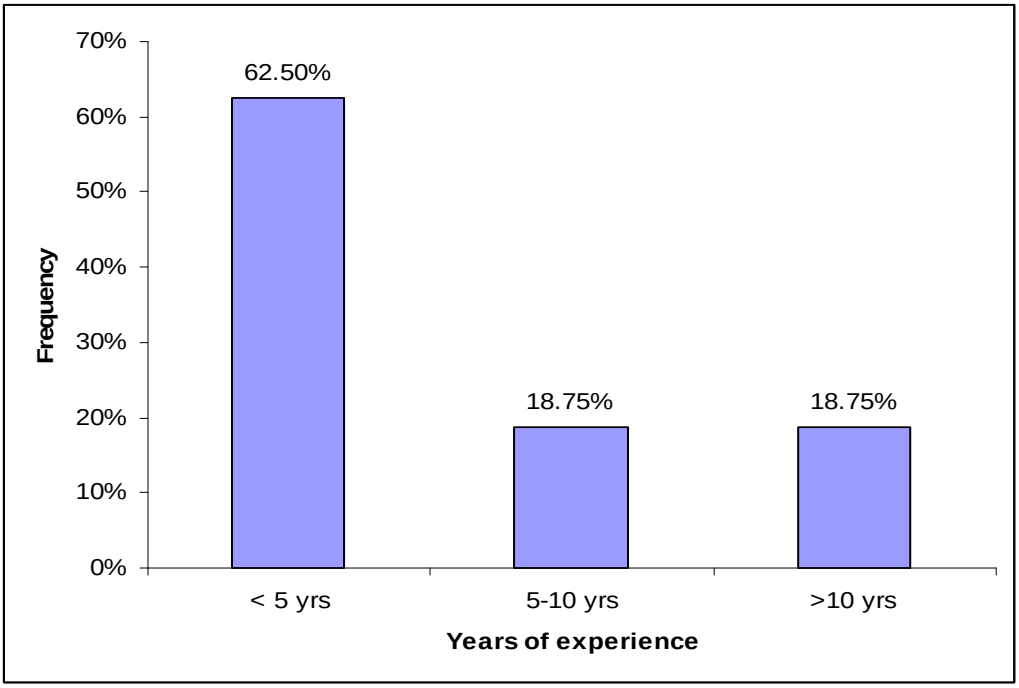


Figure 4.3: Nurses' years of experience

4.3.2 Questionnaire Part 1: Family Members' Demographic Data

Eight items included in this part of the questionnaire related to family members' demographic data. These items were age, gender, home language, population group, level of education, relationship to the patient, patient's day of admission and previous critical care experience. A total of 61 (n=61) family members were included in the sample.

Age

The mean age of family members was 40.10 years with a standard deviation (SD) of 13.14. The age range of family members was between 18 to 78 years. Seventy five percent (75%; n=46) were below the age of 47. A majority, 29.5% (n=18) was in age group of 31 to 40 years, followed by 26.2% (n=16) between 41 to 50 years, 19.7% (n=12) were between 21to 30 years, whereas 9.8% (n=6) were between 51 to 60 years, 6.6%

(n=4) were between 61 to 70 years, 6.6% (n=4) between 18 to 20 years and 1.6% (n=1) were between 71 to 80 years. Findings are presented in **Figure 4.4** below.

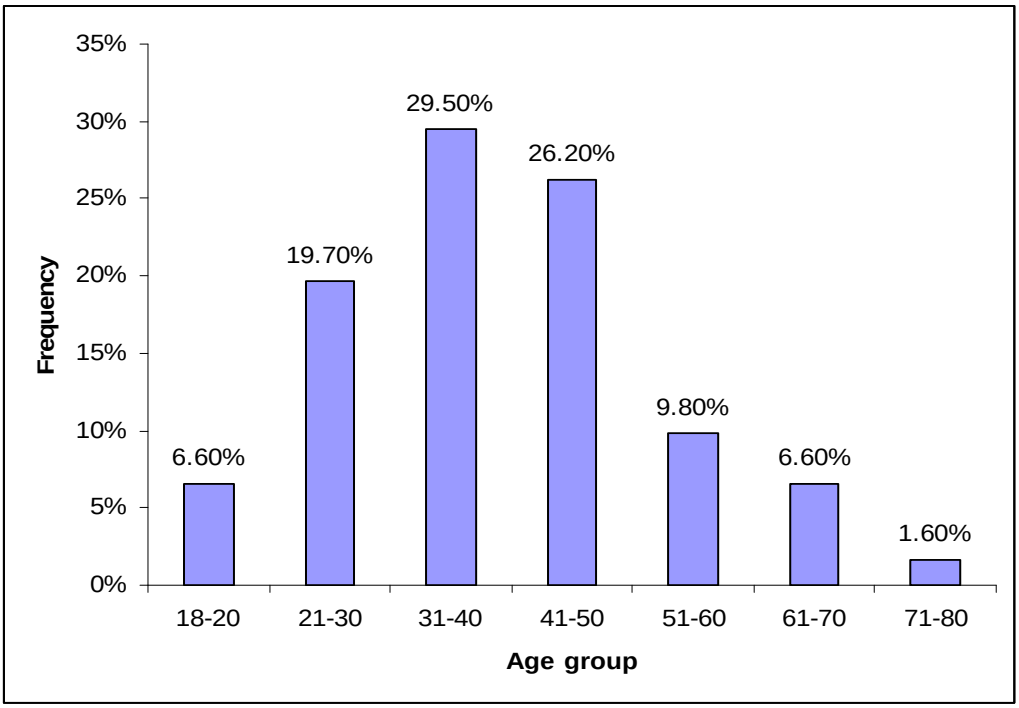


Figure 4.4: Age of family members

Gender, population group and previous critical care experience

In terms of gender, 49.18% (n=30) were males while 50.82% (n=31) were females. This distribution is slightly different from similar studies conducted overseas and in South Africa which reported that the majority of their sample accounted for females (Maxwell, et al., 2007; Schmollgruber, 2002). In this study it was anticipated that families' perceived needs would not be influenced by gender because males and females were equally represented in the sample.

A majority (80.39%, n=49) were Blacks while 19.67% (n=12) were Whites. This is consistent with the population of Johannesburg in which the white population account for 18.65% (Allan, Gotz & Joseph, 2001). This distribution is different from similar studies conducted in overseas countries where a majority were from White population groups. In this study, it was assumed that this difference would generate different findings due to cultural differences.

Most of the participants, 86.89% (n=53) had no previous critical care experience. Lee & Lau (2003) reported significant differences in perceived needs between family members with or without experience of visiting the intensive care unit. In this study, it was assumed that family needs would be influenced by the large number of participants without previous critical care experience. These findings are presented in **Table 4.2**

Table 4.2: Gender, population group and critical care experience of families

ITEM	Demographic Variable	n =61	Percentage (%)
2.1	Research Code	-	-
2.3	**Gender:**		
	• Male	30	49.18
	• Female	31	50.82
2.5	**Population Group:**		
	• Black Families	49	80.33
	• White Families	12	19.67
2.8	**Previous critical care experience:**		
	• Yes	8	13.11
	• No	53	86.89

Home language

All participants included in the study were able to communicate in English. However, in terms of their first language, Zulu (40.98%, n=25) accounted for the majority, followed by Sotho (19.67%, n=12), English (16.39%, n=10), Xhosa (6.56%, n=4), Afrikaans (4.92%, n=3), and other languages accounted for 11.48% (n=7). Findings are presented in **Figure 4.5** below

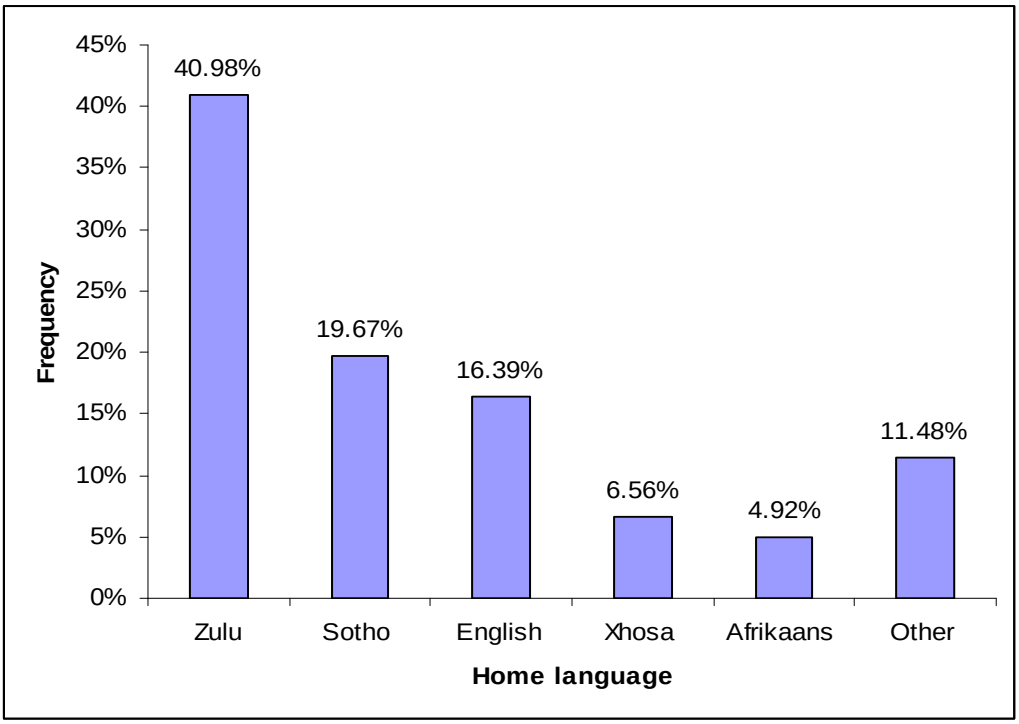


Figure 4.5: Home language of family members

Level of education

The distribution for level of education indicated that majority (33.33%, n=20) had some college education qualification, followed by 31.67% (n=19) with high school qualification; 20% (n=12) had below high school qualification, 13.13% (n=8) had

university qualification and 1.67% (n=1) had advanced degree qualifications. Findings are presented in **Figure 4.6** below

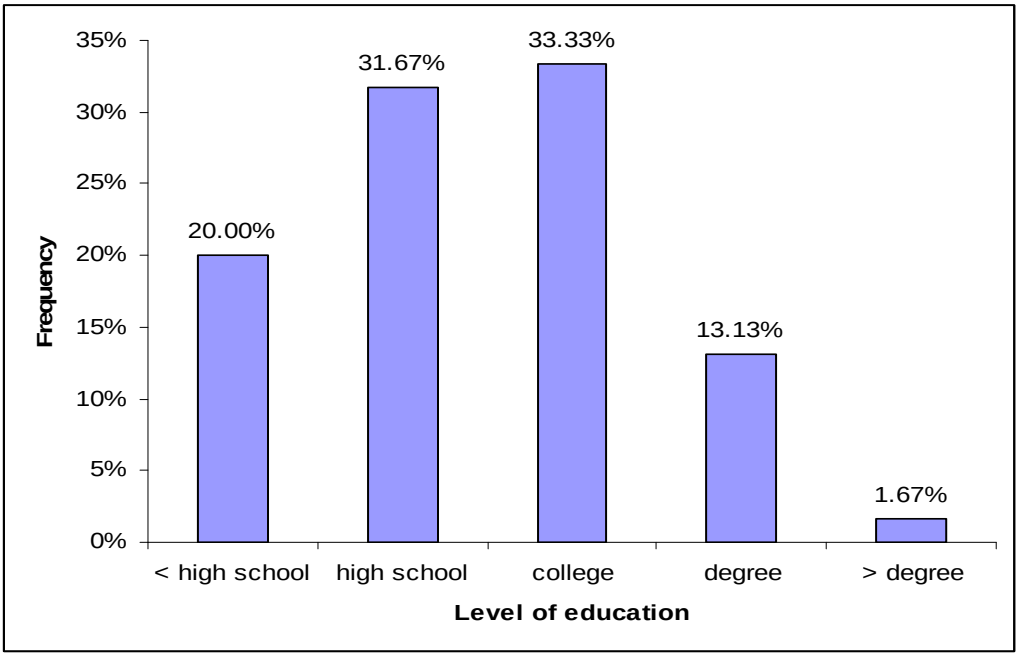


Figure 4.6: Level of education of family members

Relationship to the patient

In terms of relationship to the patient, 34.43% (n=21) were either sister or brother, 26.23% (n=16) were parents, 13.11% (n=8) were spouses, 11.48% (n=7) were either daughter or son and other relatives accounted for 14.75% (n=9). Findings are presented in **Figure 4.7** below

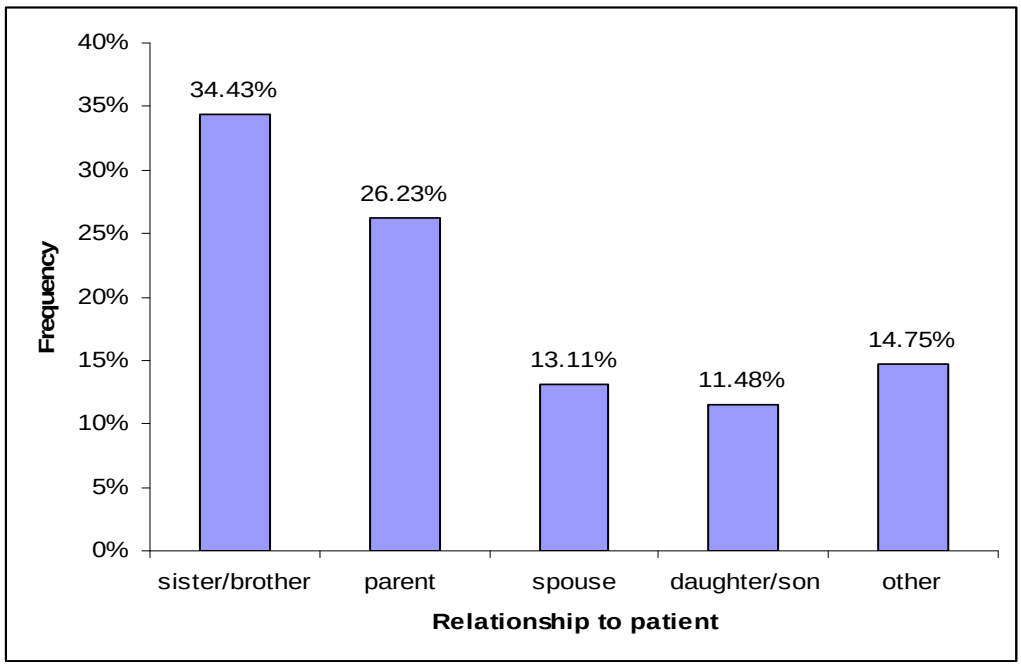


Figure 4.7: Relationship of family members to the patient

4.3.3 Questionnaire Part 2: Family needs

This part of the questionnaire comprised 45 items relating to family needs that were grouped into five categories (support, information, proximity or closeness, assurance and comfort). Each item had a four-point Likert scale in the format Strongly Disagree = 1, Disagree = 2, Agree = 3 and Strongly Agree = 4. Participants were asked to indicate their level of agreement or disagreement against each item.

The Likert scale was collapsed to two levels, agree and disagree during data analysis. Strongly disagree and disagree formed the disagree level while strongly agree and agree formed the agree level. This was done in consultation with the statistician to facilitate presentation and interpretation of the results. Descriptive statistics were used to describe nurses' and families' perception of family needs. Findings of this process are presented in

the next section as follows: Nurses' perception of family needs and Families' perception of family needs.

4.3.3.1 Nurses' perception of family needs

Data were analysed to describe nurses' perception of family needs. Descriptive statistics in the form of frequencies and percentages were used to synthesize nurses' responses to the family need statements. Results of this process showed that majority (more than 50%) of the nurses agreed with 42 out of the 45 family need statements. However, they disagreed with three (items 9, 28 and 32) family need statements, which were the need 'to be alone anytime' (65%, n=41), 'to visit anytime' (89%, n=58) and 'to talk to the same nurse everyday' (85%, n=55), respectively. In this study, a majority of nurses were in agreement with most of the family need statements. **Table 4.3** illustrates the results.

Table 4.3: Nurses' response to family need statements (n=65)

	ITEMS	NURSES' RESPONSES			
		Disagree		Agree	
		n	%	n	%
1	To have explanations before going into ICU for first time	2	3	63	97
2	To have directions as what to do at the bed side	4	6	61	94
3	To talk about negative feelings such as guilt or anger	17	27	47	73
4	To have another person with you when visiting the ICU	17	26	48	74
5	To have friends nearby for support	10	16	53	84
6	To feel that health care professionals care about the patient	1	2	64	98
7	To have someone concerned about your health	2	3	62	97
8	To help someone with financial problems	18	30	43	71
9	To be alone at anytime	41	65	22	35
10	To feel it is acceptable to cry	5	8	55	92
11	To have clergymen available	7	13	48	87
12	To be told about other people who can help with problems	1	2	64	98
13	To be told of someone who can help with family problems	3	5	63	95
14	To have a place to be alone while in the hospital	31	48	33	52
15	To know which professionals can give type of information	2	3	63	97
16	To know what medical treatment the patient is receiving	6	9	59	91
17	To know why the patient has to undergo various procedures	2	3	63	97
18	To know exactly what is being done for the patient	1	2	64	98
19	To talk to the doctor everyday	31	49	32	51
20	To be phoned at home about changes in patient's condition	7	11	58	89
21	To talk about types of professionals taking care of patient	7	11	57	89
22	To have specific person to contact when unable to visit	28	43	37	57
23	To be informed about chaplain service	7	14	54	86
24	To see the patient frequently	13	21	50	79
25	To receive daily information about the patient	15	23	50	77
26	To be told about transfer plans while they are being made	3	5	62	95
27	To have visiting hours changed for special circumstances	12	18	53	55
28	To visit any time	58	89	7	11
29	To have visiting hours start on time	8	13	56	88
30	To help with patient's physical care	14	22	51	78
31	To have waiting room near the patient	17	27	45	73
32	To talk to the same nurse everyday	55	85	10	15
33	To have questions answered honestly	2	3	63	97
34	To know the expected outcome	1	2	63	98
35	To have explanations given that are understandable	0	0	65	100
36	To know details concerning the patient's progress	2	3	62	97
37	To talk about the possibility of the patient's death	21	33	43	67
38	To feel there is hope	7	11	34	89
39	To be assured best possible care is being given to patient	1	2	64	98
40	To feel accepted by health care professionals	1	2	64	98
41	To have comfortable furniture in the waiting room	18	28	47	72
42	To have a bathroom near the waiting room	17	27	47	73
43	To have good food available in the hospital	20	32	43	68
44	To be assured it is acceptable to leave hospital for a while	21	32	44	68
45	To have a telephone near the waiting room	27	42	37	58

Data were also analysed to identify top 10 need statements that were agreed upon by majority of the nurses. Frequency and percentage of the responses were used in this

process. Results showed that majority of the nurses agreed with the following need statements, item number 35, 39, 40, 18, 6, 34, 17, 33, 1 and 15, respectively. These statements were the need ‘to have explanations given that are understandable’ (100%, n=65), ‘to be assured that the best possible care is being given to the patient’ (98%, n=64), ‘to feel accepted by health care professionals’ (98%, n=64), ‘to know exactly what is being done for the patient’ (98%, n=64), ‘to feel that health care professionals care about the patient’ (98%, n=64), ‘to know the expected outcome’ (98%, n=63), to know why the patient has to undergo various procedures’ (97%, n=63), ‘to have questions answered honestly’ (97%, n=63), ‘to have explanations of the environment before going into the ICU for the first time’ (97%, n=63) and ‘to know which health care professionals could give what type of information’ (97%, n=63).

The need statements number 33, 34, 35 and 39 related to the assurance need category. Need statements items number 15, 17 and 18 related to the information category. Need statements item number 1 and 6 related to the support category while statement number 40 related to comfort. These findings are presented in **Table 4.4**

Table 4.4 Ten need statements agreed by majority of the nurses

Need statement		n	%	Need subcategory
35	To have explanations given that are understandable	65	100.0	Assurance
39	To be assured that the best possible care is being given to the patient	64	98.0	
40	To know the expected outcome	63	98.0	
18	To have questions answered honestly	63	97.0	
6	To know exactly what is being done to the patient	64	98.0	Information
34	To know why the patient has to undergo various procedures	63	97.0	
17	To know which health care professionals could give what type of information	63	97.0	
33	To feel that health care professionals care about the patient	64	98.0	Support
1	To have explanations of the environment before going into the ICU for the first time	63	97.0	
15	To feel accepted by health care professionals	64	98.0	Comfort

Data were analysed to describe the nurses' score on the need categories namely, support, information, proximity, assurance and comfort. The participants scored the need statements on a 4-point Likert scale, strongly disagree = 1, disagree = 2, agree = 3 and strongly agree = 4. In this study a value of one was given to the most negative response and four to the most positive response. As such, the higher the score, the higher the level of agreement. Mean scores were calculated for each category. Mean score percentages were then calculated based on the expected total score in each category. This was appropriate because of the difference in the number of need statements in each category. Results of this process showed that mean score percentages ranged from 71% to 84%.

Nurses scored high on the need for assurance (84%) followed by the need for information (81%), need for support (79%), need for comfort (74%) and closeness or proximity (71%). These findings are presented the **Figure 4.8** below.

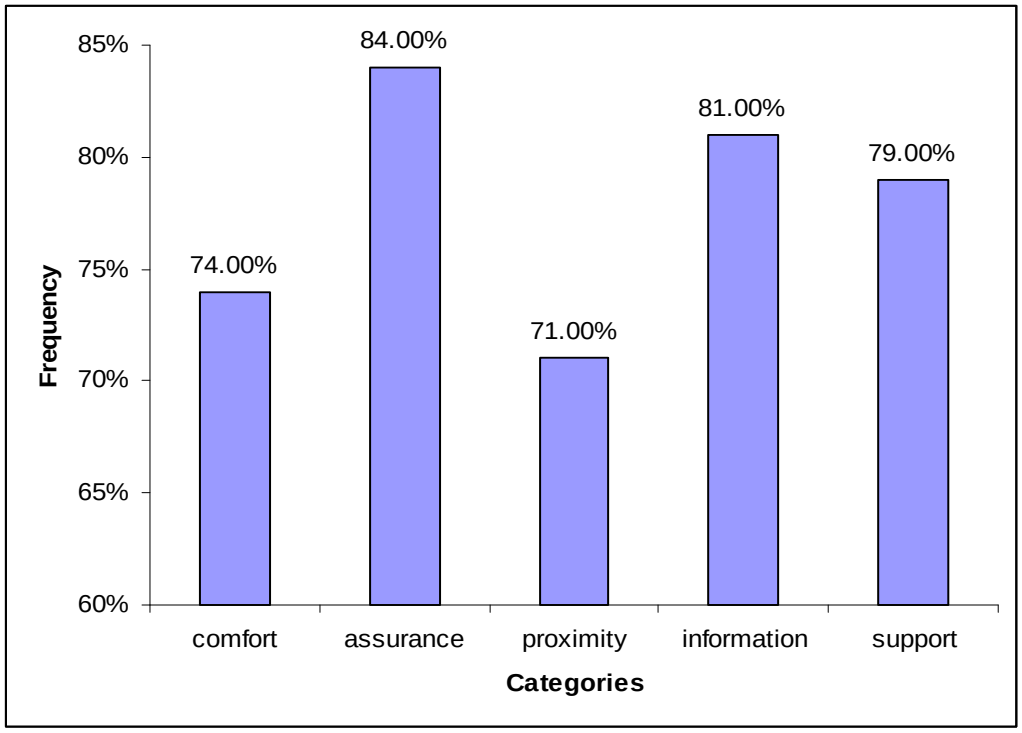


Figure 4.8: Nurses' score on need categories

4.3.3.2 Family members' perception of family needs

Data were analysed to describe families' perception of family needs. Descriptive statistics inform of frequencies and percentages were used to synthesize families' responses to the need statements. Results of this process showed that majority (more than 50%) of the family members also agreed with 42 out of 45 need statements. However, they also disagreed with three (item numbers 9, 28 and 32 respectively) need statements, namely the need 'to be alone anytime' (70%, n=40), 'to visit anytime' (56%, n=33) and 'to talk to

the same nurse everyday' (65%, n=39). This shows that family members agreed with most of the family needs. **Table 4.5** illustrates the results.

Table 4.5: Family members' response to need statements (n=61)

ITEM		FAMILY RESPONSES			
		Disagree		Agree	
		n	%	n	%
1	To have explanations before going into ICU for first time	7	12	52	88
2	To have directions as what to do at the bed side	2	3	58	97
3	To talk about negative feelings such as guilt or anger	29	48	31	52
4	To have another person with you when visiting the ICU	6	10	54	90
5	To have friends nearby for support	15	25	46	75
6	To feel that health care professionals care about the patient	1	2	58	98
7	To have someone concerned about your health	16	27	43	73
8	To help someone with financial problems	18	30	43	71
9	To be alone at anytime	40	70	17	30
10	To feel it is acceptable to cry	20	34	38	66
11	To have clergymen available	10	18	46	82
12	To be told about other people who can help with problems	8	14	51	86
13	To be told of someone who can help with family problems	8	13	52	87
14	To have a place to be alone while in the hospital	28	47	32	53
15	To know which professionals can give type of information	8	14	51	86
16	To know what medical treatment the patient is receiving	8	13	53	87
17	To know why the patient has to undergo various procedures	3	5	57	95
18	To know exactly what is being done for the patient	4	7	57	93
19	To talk to the doctor everyday	20	33	41	67
20	To be phoned at home about changes in patient's condition	13	21	48	79
21	To talk about types of professionals taking care of patient	15	25	46	75
22	To have specific person to contact when unable to visit	14	23	46	77
23	To be informed about chaplain service	16	29	40	71
24	To see the patient frequently	15	25	45	75
25	To receive daily information about the patient	5	8	56	92
26	To be told about transfer plans while they are being made	5	8	55	92
27	To have visiting hours changed for special circumstances	9	15	52	85
28	To visit any time	33	56	26	44
29	To have visiting hours start on time	8	13	52	87
30	To help with patient's physical care	14	24	45	76
31	To have waiting room near the patient	10	17	48	83
32	To talk to the same nurse everyday	39	65	21	35
33	To have questions answered honestly	2	3	59	97
34	To know the expected outcome	4	7	57	93
35	To have explanations given that are understandable	3	5	57	95
36	To know details concerning the patient's progress	2	3	59	97
37	To talk about the possibility of the patient's death	29	49	30	51
38	To feel there is hope	2	3	59	97
39	To be assured best possible care is being given to patient	2	3	58	97
40	To feel accepted by health care professionals	3	5	57	95
41	To have comfortable furniture in the waiting room	28	46	33	54
42	To have a bathroom near the waiting room	16	27	44	73
43	To have good food available in the hospital	21	34	40	66
44	To be assured it is acceptable to leave hospital for a while	9	15	50	85
45	To have a telephone near the waiting room	25	41	36	59

Data were also analysed to identify 10 need statements that were agreed upon by majority of the family members. Frequency and percentage of the responses were used in this process. Results showed that majority of the family members agreed with need statements items number 6, 36, 33, 38, 39, 2, 17, 35, 40 and 34. These need statements were ‘to feel that health care professionals care about the patient’ (98%, n=58), ‘to know details concerning the patient’s progress’ (97%, n=59), ‘to have questions answered honestly’ (97%, n=59), ‘to feel there is hope’ (97%, n=59), ‘to be assured that the best possible care is being given to the patient’ (97%, n=58), ‘to have directions as what to do at the bed side’ (97%, n=58), ‘to know why the patient has to undergo various procedures’ (95%, n=57), ‘to have explanations given that are understandable’ (95%, n=57), ‘to feel accepted by health professionals’ (95%, n=57) and ‘to know the expected outcome’ (93%, n=57).

The need statements item number 33, 34, 35, 36, 38 and 39 related to the assurance category. Need statement item number 17 related to the information category. Need statements item number 2 and 6 related to the support category while statement item number 40 related to comfort. These findings are presented in **Table 4.7**

Table 4.6: Ten need statements agreed by majority of the family members

Need statement		n	%	Need category
6	To feel there is hope	59	97.0	Assurance
36	To be assured the best possible care is being given	58	97.0	
33	To know details concerning the patient's progress	59	97.0	
38	To have questions answered honestly	59	97.0	
39	To have explanations given that are understandable	57	95.0	
2	To know the expected outcome	57	93.0	
17	To know why the patient has to undergo various procedures	57	95.0	Information
35	To feel that professionals care about the patient	58	98.0	Support
40	To have directions as what to do at the bed side	58	97.0	
34	To feel accepted by health care professionals	57	95.0	Comfort

Data were analysed to describe how family members scored on the need categories namely, support, information, proximity, assurance and comfort. The participants scored the need statements on a 4-point Likert scale, strongly disagree = 1, disagree = 2, agree = 3 and strongly agree = 4. The value of one was assigned to the most negative response and four to the most positive response. As such, the higher the score, the higher the level of agreement. Mean scores were calculated for each category. Mean score percentages were then calculated based on the predicted total score in each category. This was appropriate because of the difference in the number of need statements in each category. Results of this process showed that mean score percentages ranged from 74% to 89%. Family members scored high on the need for assurance (89%) followed by the need for information (81%), need for closeness or proximity (78%), need for support (76%) and comfort (74%). These findings are presented the **Figure 4.9** below

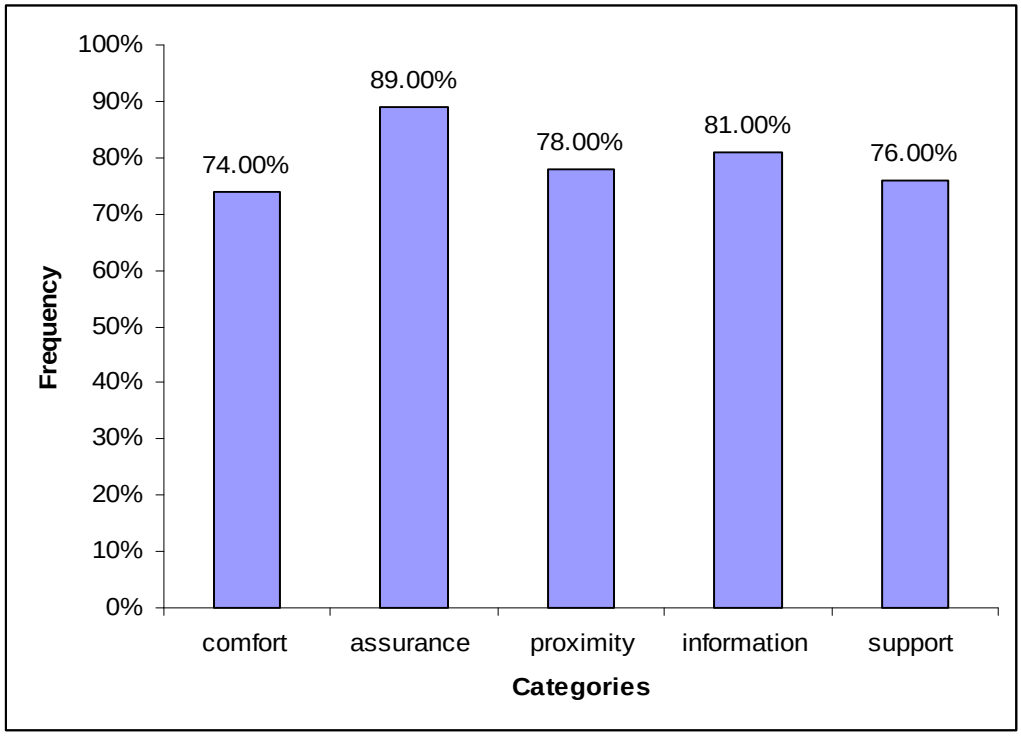


Figure 4.9: Family members' score on need categories

4.3.4 Comparison between nurses' and families' perceptions

Data were analysed to explore if the differences in nurses' and families' responses were statistically significant. Fisher's exact test was used in this process. Testing was done at the 0.05 level of significance. The results showed that significant ($p<0.05$) differences existed on 30 out of the 45 need statements. These findings are presented in **Tables 4.8** to **4. 12** below

Table 4.7: Comparison of participant responses to support need items

ITEM		NURSES				FAMILY MEMBERS				P-value (Fisher 's exact test)
		Disagree		Agree		Disagree		Agree		
		N	%	n	%	N	%	n	%	
1	To have explanations before going into ICU for first time	2	3	63	97	7	12	52	88	0.35
2	To have directions as what to do at the bed side	4	6	61	94	2	3	58	97	0.21
3	To talk about negative feelings such as guilt or anger	17	27	47	73	29	48	31	52	0.03*
4	To have another person with you when visiting the ICU	17	26	48	74	6	10	54	90	0..2
5	To have friends nearby for support	10	16	53	84	15	25	46	75	0.12
6	To feel that health care professionals care about the patient	1	2	64	98	1	2	58	98	0.01*
7	To have someone concerned about your health	2	3	62	97	16	27	43	73	0.00*
8	To help someone with financial problems	18	30	43	71	18	30	43	71	0.00*
9	To be alone at anytime	41	6	22	35	40	70	17	30	0.06
10	To feel it is acceptable to cry	5	8	55	92	20	34	38	66	0.00*
11	To have clergymen available	7	13	48	87	10	18	46	82	0.22
12	To be told about other people who can help with problems	1	2	64	98	8	14	51	86	0.04*
13	To be told of someone who can help with family problems	3	5	63	95	8	13	52	87	0.25
14	To have a place to be alone while in the hospital	31	48	33	52	28	47	32	53	0.04*

Key: * = statistically significant ($p<0.05$)

The frequency of responses to seven need statements under support subscale were significantly different ($p < 0.05$). More nurses compared to family members agreed to four statements.

Table 4.8: Comparison of participant responses to information needs

ITEM		NURSES				FAMILY MEMBERS				P-value (Fisher's exact test)
		Disagree		Agree		Disagree		Agree		
		n	%	n	%	N	%	n	%	
15	To know which professionals can give type of information	2	3	63	97	8	14	51	86	0.15
16	To know what medical treatment the patient is receiving	6	9	59	91	8	13	53	87	0.15
17	To know why the patient has to undergo various procedures	2	3	63	97	3	5	57	95	0.28
18	To know exactly what is being done for the patient	1	1	64	98	4	7	57	93	0.00*
19	To talk to the doctor everyday	31	49	32	51	20	33	41	67	0.01*
20	To be phoned at home about changes in patient's condition	7	11	58	89	13	21	48	79	0.00*
21	To talk about types of professionals taking care of patient	7	11	57	89	15	25	46	75	0.14
22	To have specific person to contact when unable to visit	28	43	37	57	14	23	46	77	0.00*
23	To be informed about chaplain service	7	14	54	86	16	29	40	71	0.28

Key: * = statistically significant ($p<0.05$)

There was significant difference ($p< 0.05$) on four need statements. More nurses compared to family members agreed with two statements while the opposite appeared on the other two statements.

Table 4.9: Comparison of participant responses to proximity need items

ITEM		NURSES				FAMILY MEMBERS				P-value (Fisher's exact test)
		Disagree		Agree		Disagree		Agree		
		n	%	n	%	n	%	n	%	
24	To see the patient frequently	13	21	50	79	15	25	45	75	0.02*
25	To receive daily information about the patient	15	23	50	77	5	8.2	56	92	0.00*
26	To be told about transfer plans while they are being made	3	5	62	95	5	8	55	92	0.00*
27	To have visiting hours changed for special circumstances	12	18	53	55	9	15	52	85	0.06
28	To visit any time	58	89	7	11	33	56	26	44	0.00*
29	To have visiting hours start on time	8	13	56	88	8	13	52	87	0.06
30	To help with patient's physical care	14	22	51	78	14	24	45	76	0.04*
31	To have waiting room near the patient	17	27	45	73	10	17	48	83	0.00*
32	To talk to the same nurse everyday	55	85	10	15	39	65	21	35	0.02*

Key: * = statistically significant ($p<0.05$)

There was significant difference ($p< 0.05$) on seven statements. Compared to family members more nurses agreed with three statements and disagreed with two statements. Family members agreed with the other two statements.

Table 4.10: Comparison of participant responses to assurance need items

ITEM		NURSES				FAMILY MEMBERS				P-value (Fisher's exact test)
		Disagree		Agree		Disagree		Agree		
		n	%	n	%	n	%	n	%	
33	To have questions answered honestly	2	3	63	97	2	3	59	97	0.00*
34	To know the expected outcome	1	2	63	98	4	7	57	93	0.00*
35	To have explanations given that are understandable	0	0	65	100	3	5	57	95	0.00*
36	To know details concerning the patient's progress	2	3	62	97	2	3	59	97	0.00*
37	To talk about the possibility of the patient's death	21	33	43	67	29	49	30	51	0.00*
38	To feel there is hope	7	11	34	89	2	3	59	97	0.00*
39	To be assured best possible care is being given to patient	1	2	64	98	2	3	58	97	0.00*

Key: * = statistically significant ($p<0.05$)

There was significant difference ($p< 0.05$) on all statements. More nurses agreed with six statements as compared to family members.

Table 4.11: Comparison of participant respones to comfort need items

ITEM		NURSES				FAMILY MEMBERS				P-value (Fisher's exact test)
		Disagree		Agree		Disagree		Agree		
		n	%	n	%	n	%	n	%	
40	To feel accepted by health care professionals	1	2	64	98	3	5	57	95	0.00*
41	To have comfortable furniture in the waiting room	18	28	47	72	28	46	33	54	0.51
42	To have a bathroom near the waiting room	17	27	47	73	16	27	44	73	0.36
43	To have good food available in the hospital	20	32	43	68	21	34	40	66	0.00*
44	To be assured it is acceptable to leave hospital for a while	21	32	44	68	9	15	50	85	0.03*
45	To have a telephone near the waiting room	27	42	37	58	25	41	36	59	0.15

Key: * = statistically significant ($p<0.05$)

There was significant difference ($p < 0.05$) on three statements. More nurses agreed with two statements compared to family members.

Data were then analysed to examine differences between nurses and families with respect to need categories. Responses were noted on a 4- point Likert scale and the scoring was coded as strongly disagree (1), disagree (2), agree (3) and strongly agree (4). The responses were summed up and mean score was calculated to pave way for the calculation of inferential statistics. The mean scores were then compared across all categories to determine if their differences were statistically significant. Hotelling's T-squared test was used for this comparison at the 0.05 level of significance. The calculated p-values were 0.16 for support, 0.90 for information, 0.00 for proximity, 0.03 for assurance and 0.81 for comfort. Significant difference ($p < 0.05$) was noted in two categories, proximity and assurance. Results of this process are summarised in **table 4.13.**

Table 4.12: Comparison of participant responses in five need categories

CATEGORY	Participants	n	Mean Score	Standard Deviation (SD)	95% Confidence interval	P-value
Support	Nurses	65	43.97	4.94	42.74-45.13	0.16
	Family Members	61	42.57	6.13	41.00-44.14	
Information	Nurses	65	29.11	3.83	28.16-30.06	0.90
	Family Members	61	29.22	5.79	27.74-30.7	
Proximity or Closeness	Nurses	65	25.42	3.41	24.57-26.26	0.00*
	Family Members	61	28.15	4.65	26.96-29.34	
Assurance	Nurses	65	23.63	2.87	22.92-24.34	0.03*
	Family Members	61	24.97	3.83	23.99-25.93	
Comfort	Nurses	65	17.66	3.14	16.88-18.44	0.81
	Family Members	61	17.81	3.75	16.85-18.77	

Key: * = statistically significant ($p<0.05$)

There was significant difference ($p< 0.05$) on two categories, assurance and proximity or closeness. Family members scored higher than nurses.

4.3.5 Comparison between groups in relation to demographic variables

Data were also analysed to determine if some demographic variables had influence on either nurses' or families' perception of family needs. Fisher's exact test was used to examine this relationship between two groups. Testing was done at the 0.05 level of significance.

4.3.5.1 Nurses' perception in relation to training

In general there was no significant relationship between nurses' training and their perception of family needs. Most of the statements scored higher than the set p-value of 0.05.

Of the 45 need statements only two statements demonstrated statistically significant ($p<0.05$) difference. These statements related to the comfort category were, the need 'to feel accepted by health care professionals' (p-value = 0.04) and 'to have comfortable furniture in the waiting room' (p-value = 0.04). Majority of the nurses without training in intensive care nursing agreed to these need statements (100%, n=29 and 79%, n=23 respectively).

This shows that generally nurses' training did not influence their perception of family needs.

4.3.5.2 Nurses' perception in relation to years of experience

Three groups of nurses based on years of experience were compared in relation to their perception of the family needs. There was no significant difference among the three groups. All the statements scored higher than the p-value of 0.05. This suggests that the number of years of experience had no influence on nurses' perception of the family needs.

4.3.5.3 Families' perception in relation to gender

Of the 45 need statements 5 statements demonstrated statistically significant ($p<0.05$) difference in relation to gender. Three statements were related to the support category and these were 'to talk about negative feelings such as guilt or anger' (p-value = 0.01), 'to feel that health care professionals care about the patient' (p-value = 0.04) and 'to be told about other people who could help with problems' (p-value 0.00). The other family need statements were related to the information category, the need to 'to know why the patient has to undergo various procedures' (p-value = 0.04) and 'to have specific person to contact at the hospital when unable to visit' (p-value = 0.02).

4.3.5.4 Families' perception in relation to previous critical care experience

Only one need statement demonstrated statistically significant ($p<0.05$) difference in relation to previous critical care experience, the need 'to know which health care professionals could give what type of information' (p-value = 0.04). This statement was related to the information category.

4.3.5.5 Families' perception in relation to population group

Three statements demonstrated statistically significant ($p<0.05$) difference in relation to population group. Two statements were related to the support category, 'to feel it is acceptable to cry' (p-value = 0.02), 'to have a place to be alone while in the hospital' (p-value 0.03). The other need item statement was related to the information category, 'to have specific person to contact at the hospital when unable to visit' (p-value = 0.02).

4.3.6 Questionnaire Part 3: Open ended question

This part of the questionnaire had one open ended question. Participants were asked to indicate any additional family needs that were not included in the questionnaire. There were no new needs that were identified in the comments by either the nurses or family members.

4.4 SUMMARY

This chapter presented data analysis and results. Generally, there were similarities between nurses' and families' perception of the family needs. Majority (more than 50%) of participants in both study groups agreed with 42 out of the 45 family need statements. All (100%; n=65) the nurses agreed to the need 'to have explanations that are understandable' while majority (98%; n=58) of the family members agreed with the need 'to feel that health care professionals care about the patient'. Most of the statements agreed by majority of both groups were related to need for assurance. Of the total 45 family need statements, 30 demonstrated significant difference at the set p-value of 0.05.

There were also similarities between nurses' and families' responses in relation to need categories. However, families scored higher than nurses, with significant ($p<0.05$) difference on the need for proximity and assurance. Only a few need statements demonstrated significant ($p<0.05$) difference in relation to demographic variables of the two study groups.

These findings will be discussed in the next chapter in relation to the study objectives and within the context of the family need item statements and five categories, namely support, information, proximity, assurance and comfort.

CHAPTER 5

SUMMARY, DISCUSSION OF RESULTS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

The final chapter presents a summary of the study, discussion of results and conclusion of the study. This is followed by limitations of the study and recommendations for nursing management, critical care nursing education, clinical practice and areas for further research arising from this study.

5.2 SUMMARY OF THE STUDY

The purpose of the study was to elicit and compare nurses' and families' perception of family needs in the intensive care unit.

The objectives of the study were:

- To elicit nurses' perception of family needs in the intensive care unit
- To elicit families' perception of family needs in the intensive care unit
- To compare nurses' and families' perception of family needs in the intensive care unit.

5.2.1 Methodology

The study was conducted in three intensive care units at a tertiary public sector hospital. A quantitative non-experimental, comparative and descriptive design was used to elicit and compare nurses' and families' perception of family needs.

Ethical clearance was sought from the Committee for Research on Human subjects (Medical) of the University of the Witwatersrand (Protocol number M081014). A pilot study was carried out to assess feasibility of the study. Sample size of at least 60 participants in each group (nurses and families) was initially determined after consulting a statistician from the Medical Research Council. However, a total of 126 participants (65 nurses and 61 family members) was obtained from the three intensive care units during the period of data collection.

A questionnaire developed from Critical Care Family Needs Inventory (CCFNI) was used to collect the required data from the two groups. The questionnaire had a list of 45 family need statements with a four-point Likert scale, strongly disagree (1), disagree (2), agree (3), strongly agree (4) against each need statement. Participants were asked to indicate their level of agreement against each statement. An open ended question was added at the end of the questionnaire to identify additional needs. Descriptive and inferential statistics were used to analyse the data with assistance from a statistician.

5.3 MAIN FINDINGS AND DISCUSSION

The first objective of the study was to elicit nurses' perception of family needs in the intensive care unit.

Findings of this study showed that nurses were generally in agreement with need statement of the Critical Care Family Needs Inventory. Majority of the nurses (more than 50%) agreed with 42 out of the 45 need statements. All the nurses (100%, n=65) agreed to the need for family members 'to have explanations given that are understandable'. The other need statements agreed by majority of nurses were the need 'to be assured that the best possible care is being given to the patient', 'to feel accepted by health care professionals', 'to know exactly what is being done for the patient', 'to know the expected outcome', 'to know why the patient has to undergo various procedures', 'to have questions answered honestly', 'to have explanations of the environment before going into the intensive care unit for the first time' and 'to know which health care professionals could give what type of information'. Most of these needs were related to assurance and information categories. The other statements were related to support and comfort categories

Similar studies have also demonstrated that nurses agree with family needs. One such study was conducted by Maxwel, Stuenkel & Saylor (2007) on comparison of nurses and family perceptions of needs of family members of critically ill patients. The sample included 50 subjects, 30 critical care nurses and 20 family members. Out of the top 12 need items considered by nurses as important to family members, eight statements were also among the top ten needs agreed by majority of nurses in the current study. These

statements were ‘to have questions answered honestly’, ‘to know the expected outcome’, ‘to know why the patient has to undergo various procedures’, ‘to be assured that the best possible care is being given’, ‘to have explanations given that are understandable’, ‘to feel there is hope’, ‘to know exactly what is being done to the patient’, and ‘to feel that health care professionals care about the patient’.

Majority of the nurses (89%, n=58) disagreed with the need ‘to visit anytime’. Compared with other studies this need was also considered less important by nurses in a similar study by Bijttebier, et al. (2001). These findings are not surprising in view of current literature which indicates that nurses generally feel uncomfortable with family members’ presence. According to Stayt (2007), nurses regard family members as an obstacle to interventions and treatment of the patient. The nurses also disagreed with the need ‘to be alone anytime’ and ‘to talk to the same nurse everyday’.

In this study nurses scored high on assurance need category. Similar studies have demonstrated that the need for assurance as most important. A study by Takman & Severisson (2005) on comparison of Norwegian nurses and physicians perception of needs of significant others showed that nurses scored higher than physicians on the need for assurance.

Generally, there was no relationship between nurses’ training in critical care nursing. Of the 45 need statements only two statements demonstrated statistically significant difference ($p<0.05$). These statements were related to comfort category. Unfortunately, the current literature does not provide enough evidence to support or oppose the results. It is therefore important to replicate this study to confirm the findings.

Findings also demonstrated no relationship between nurses' experience and perceived needs ($p > 0.05$). These findings suggest that nurses' experience did not influence their perception of family needs in this sample. This is consistent with results of a similar study conducted in Italy. The study reported that no relationship existed between nurses' experience and perceived needs (Moggai, et al., 2005). However, the influence of experience on perception of the needs was reported in other studies. Verhaeghe, et al. (2005) indicated that nurses with more experience are less able to assess and identify family needs compared to nurses with less experience. Another study by Takman & Severinsson (2005) showed that nurses with more experience scored higher on the need for information and predictability compared to nurses with less experience.

The second objective was to elicit families' perception of family needs in intensive care unit.

Findings of this study showed that family members were also in agreement with most of the need statements. Majority (more than 50%) agreed with 42 out of the 45 need statements. The needs that were agreed by majority of family members included the need 'to feel there is hope', 'to be assured that the best possible care is being given', 'to know details concerning the patient's progress', 'to have questions answered honestly', 'to have explanations given that are understandable', 'to know the expected outcome', 'to know why the patient has to undergo various procedures', 'to feel that professionals care about the patient', 'to have directions as what to do at the bedside' and 'to feel accepted by health care professionals'.

These findings were similar to results of other studies. Omari (2009) conducted a study on perceived and unmet needs of adult Jordanian family members of patients in ICU. Out of the ten most important needs identified by the participants, seven needs were similar to the need statements that were most agreed by families in the current study. These needs were ‘to be assured that the best possible care is being given to the patient’, ‘to feel that professionals care about the patient’, ‘to feel there is hope’, ‘to have questions answered honestly’, ‘to know the expected outcome’, ‘to know details concerning the patient’s progress’ and ‘to know why the patient has to undergo various procedures’. According to Verhaeghe, et al. (2005) the need ‘to feel that health care professionals care about the patient’ is common among family members with trauma and neuro patients who can not survive without intensive care. It is difficult to confirm this explanation in the current study because the nature of the patients’ illness was not considered

The results of the current study also showed that six needs agreed by majority of the relatives were related to assurance need category. In addition, the two groups scored high on assurance category. Other studies have reported that the need for assurance is regarded as most important among family members (Lee & Lau, 2003; Al-Hassan & Hweidi, 2004). A more recent study was conducted by Omari (2009) in Jordan with a convenience sample of 138 families. The findings reported that the need for assurance was rated highly. According to Chien, et al. (2005) assurance about the patient’s condition helps to reduce anxiety and concerns of family members.

The other needs agreed by majority of family members were related to information, support and comfort categories. A review of literature by Verhaeghe, et al. (2005) indicated that information is viewed more important than other family needs. Most of the

studies in which the need for information emerged largely important were conducted within 72 hours of the patient's admission (Bijttebier, et al., 2001 & Schmollgruber, 2002). This is the most critical period in which family members experience high levels of stress. Information helps to alleviate this emotional turmoil. In another study Verhaeghe, et al. (2007) reported that information and hope are intertwined. Information that is accurate, complete and comprehensible facilitates the development of realistic hope among family members.

There are variations on how support, proximity and comfort categories were rated in previous studies (Lee & Lau, 2003 & Chien, et al., 2005). However, most studies indicate that the need for comfort is considered least important to family members (Bijttebier, et al., 2000). According to Verhaeghe, et al. (2005), family members prioritise needs related to a patient's health unlike their own comfort. However, Al-Hassan & Hweidi (2004) observed that the need for comfort is lowly scored because the Critical Care Family Needs Inventory does not capture the multidimensional definition of comfort. The instrument focuses on environmental needs of comfort omitting mental, spiritual and social aspects.

Majority of the family members (more than 70%) disagreed with the need 'to be alone anytime'. This was also reported by Omari (2009) as the least important need among Jordanian families. According to Eggenberger & Nelms (2007) family members prefer staying close to their relatives. By so doing they feel exceedingly strong to overcome the experience of critical illness.

Generally, demographic status did not influence family members' responses to the need statements. Only five statements were statistically significant ($p < 0.05$) in relation to gender, one statement was statistically significant ($p < 0.05$) in relation to previous critical care experience and three statements demonstrated significant difference ($p < 0.05$) in relation to population group.

Compared with current literature, gender, previous critical care experience demonstrated influence on perceived needs in similar studies. Generally, females rated most of the needs higher than males (Bijttebier, et al., 2000; Lee & Lau, 2003 & Chien, et al., 2005). In the study by Lee & Lau (2003), participants with previous experience of visiting the intensive care unit scored higher than those without such experience. These differences were conspicuous on the need 'to talk about feelings' and 'to know the expected outcome'.

The third objective was to compare nurses' and families' perception of family needs in the intensive care unit.

Comparison in relation to responses to need statements

Responses to the need statements were similar between the two groups. Both groups agreed with 42 statements out of the 45 need statements. The groups disagreed with three need statements namely, 'to be alone anytime', 'to visit anytime' and 'to talk to the same nurse everyday'. 30 out of 45 items were significantly different when compared between the two groups.

Comparison in relation to needs agreed by majority of both groups

Data were analysed to identify top ten needs agreed by majority in both groups. There were similarities between the two groups on seven needs. These statements were ‘to feel that health care professionals care about the patient’, ‘to know why the patient has to undergo various procedures’, ‘to have questions answered honestly’, ‘to know the expected outcome’, ‘to have explanations given that are understandable’, ‘to be assured that the best possible care is being given to the patient’ and ‘to feel accepted by health care professionals’. These need statements were related to assurance category (three need statements), information (two need statements) and support (one need statement) and comfort (one need statement).

Comparison in relation to need categories

Data were also analysed to determine nurses’ and families’ responses in relation to need categories. Nurses scored high mean score percentage on the need for assurance, followed by information, support, comfort and proximity. The families also scored high on the need for assurance, followed by information, proximity, support and comfort

These findings suggest that nurses’ and families’ responses to the family need statements were generally similar. This supports the evidence in literature that nurses’ and families’ perceptions of family needs in intensive care unit are similar. In a study by Bijttebier, et al. (2001) on needs of relatives as perceived by relatives, physicians and nurses at a University hospital in Belgium, relatives and nurses agreed on seven needs out of top ten needs regarded as important to relatives. The sample included 200 relatives, 38 physicians

and 143 nurses. Another study was conducted by Moggai, et al. (2005) with a study sample size of 290 nurses and 270 relatives from 43 Italian critical care units. Results showed that nurses and relatives held similar views on seven needs out of top ten priority needs. A similar study was also carried out by Maxwel, Stuenkel & Saylor (2007) with a convenient sample of 30 critical care nurses and 20 family members. The results showed similarities on how the needs were ranked by nurses and family members.

In this study, families scored higher than nurses in all need categories. Mean scores for two categories, proximity and assurance showed significant difference. In view of current literature on family needs, these finding are not unexpected. According to Paul & Rattray (2008), perceived family needs are influenced by local factors such as visiting hours. This study was conducted in units where relatives are allowed to visit their patient once a day between 3-5 pm. It is therefore not surprising that families scored higher on the need for proximity. Literature also indicates that nurses generally underestimate emotional needs of families (Verhaeghe, et al., 2005). This is possibly the reason why nurses' score for assurance was significantly lower than that of families.

5.4 LIMITATIONS OF THE STUDY

The following limitations in this study are worth noting:

- The use of convenience sampling plus a small sample.
- The use of level three intensive care units at one tertiary public sector hospital
- Relatives of discharged patients were not included

- Other factors which are known to influence perception of family needs were not considered. For example, nature of patient's condition.

In view of these limitations, generalisation of the findings is limited. However, findings could be applied to intensive care units of other public sector hospitals. It is important to repeat the study in other settings to challenge or support the findings.

5.5 CONCLUSION

This study was based on the belief that critical illness of a family member disrupts functioning of the entire family system. The purpose of this study was to elicit and compare nurses' and families' perception of family needs in intensive care unit.

The results showed similarities between nurses' and families' responses to family need statements. Both agreed with 42 statements out of the 45 statements. There were also similarities on seven out of top ten needs agreed by majority of the two groups. Most of these statements were related to assurance and information need categories. However, 30 out of the 45 need statements demonstrated significant difference. There was no statistically significant difference between the two groups in relation to some demographic characteristics. Both groups scored high on assurance and information need categories. However, family members' score on assurance and closeness or proximity was significantly higher than that of nurses.

Results of this study have strengthened the evidence in literature on similarities between nurses' and families' perception of family needs. However, most of the studies were

conducted in western countries. It is therefore important to replicate this investigation in other countries including the researcher's home country, Malawi. This is because different countries have different cultures.

5.6 RECOMMENDATIONS OF THE STUDY

The change from patient-focussed care to holistic approach requires critical care nurses to purposefully include family members in the plan of care. Nursing practice must be driven by the needs of patients and family members in order to achieve optimal outcome (Alspach, 2006). Based on findings of this study, the following recommendations are made:

5.6.1 Recommendations for Clinical Nursing Practice

Findings of the study showed that majority of both groups (nurses and family members) agreed with 42 out of the 45 need statements. The needs that were agreed by majority of both groups were related to assurance and information categories. These results are similar to findings of previous studies.

Previous studies have come up with the same message on assurance and information. Critical care nurses should assist family members to meet their assurance and information needs. Assurance and information help to reduce families' anxiety and give them a sense of trust in the caregiver (Morton & Fontaine, 2009). The introduction of family conferences and allowing family members to attend ward rounds can help to address these needs.

There is evidence that family members want to talk to nurses and doctors in relation to patient's condition (Bryan-Brown, 2007). Besides meeting the families' need for information, family conferences and ward rounds would give family members the opportunity to effectively contribute to patient care. This contribution includes giving information about the patient and making decisions on behalf of the patient for care planning.

The results also showed that families scored significantly higher than nurses on the need for assurance and proximity or closeness. This confirms reports from other studies that family needs are underestimated by caregivers (Verhaeghe, et al., 2005). Revising the current visiting policy which allows families to visit between 3 - 5 pm only can help to address the need for proximity. Previous studies have demonstrated that proximity of the family members helps to reduce anxiety experienced by patient and family members (Morton & Fontaine, 2009). The presence of family members gives a humane value and hope to the patient (Bryan-Brown, 2007).

5.6.2 Recommendations for Nursing Management

Planning of care based on good nursing assessment is essential for effective nursing care in ICU. The following recommendations can help to identify the complexities of family members' situation and their needs:

- Nurse Managers should facilitate development of protocols on family assessment and family care.

- Nurse Managers should organise and facilitate debriefing meetings for critical care nurses on family care.
- Nurse Managers should facilitate the introduction of nursing family conferences and lobby for the inclusion of family members during ward round. This can provide a forum for discussion with family members on patients' progress and care planning.
- Nurse Managers should consider in-service training and continuous professional development for nurses working in ICU.
- Management should lobby for review policies which relate to needs of family members, for example visiting time.

5.6.3 Recommendations for Nursing Education

Nursing education provides training for critical care nurses. The following recommendations are made to improve nurses' skill in family care:

- Critical care nursing education should emphasize holistic nursing care which includes family members. This creates a win win situation to the patient, family members and nurses.
- Critical care nursing education should emphasize family assessment during critical illness. Care of family members should not be generalised because each family is unique.

5.6.4 Recommendations for Nursing Research

Nursing is believed to be a discipline as well as a profession. The former cultivates knowledge while the latter uses the knowledge to respond to human needs (George, 2002). Research helps to generate knowledge which guides nursing practice.

The study was conducted at one institution. A repeat of the study in a different setting is necessary to confirm the findings. Although nurses' and families' perception of family needs was generally similar, it would be interesting to investigate whether the beliefs and views of the professional nurses are applied in the clinical environment.

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APPENDIX A

University of the Witwatersrand
Faculty of Health sciences
Department of Nursing Education
7 York Road
Parktown
2193.

The Chief Executive Officer
Johannesburg Hospital
5 Jubilee Road
Parktown
2193.

Dear Sir/Madam,

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT JOHANNESBURG HOSPITAL

I am a registered postgraduate student at University of the Witwatersrand pursuing Master of Science in Intensive and Critical Care Nursing. I would like to ask for permission to conduct research study at Johannesburg Hospital as one of the requirements of the programme. The title of the study is ***"Comparison of nurses' and families' perception of family needs in the Intensive Care Unit at a Tertiary Public Sector Hospital".***

Families of patients admitted to Intensive Care Unit experience emotional turmoil because of the critical condition of their patients. Although caring for critically ill patients is a stressful endeavour with a lot of burden, nurses are in a better position to assist family members meet their needs in order to adapt to the situation. However, a review of literature indicates that these needs are not adequately met as expected by the recipients. As a result families feel dissatisfied with quality of care and may fail to adapt to the situation.

This study therefore seeks to elicit and compare nurses' and families' perception of family needs in the Intensive care unit. The sample will be drawn from nurses and patients' family members in Intensive Care Unit. Participants will be expected to complete a questionnaire.

The proposed study has been approved by Human Research Ethics Committee (Medical) of the University of Witwatersrand. I want to assure you that names of personnel and patients' family members will not be revealed in the report and the information given will be treated with confidentiality.

Should you need more information, contact the undersigned on the following telephone number: **0766922520.**

Yours sincerely,

Rodwell Gundo

APPENDIX B

COMPARISON OF NURSES' AND FAMILIES' PERCEPTION OF FAMILY NEEDS IN THE INTENSIVE CARE UNIT AT A TERTIARY PUBLIC SECTOR HOSPITAL

NURSES INFORMATION LETTER

Dear……
(Name of nursing colleague)

My name is Rodwell Gundo and I am currently registered as a student at the University of the Witwatersrand in the Department of Nursing for the degree of Master of Science in Nursing (Intensive Care Nursing). I hope to conduct a research project and would like to ask you to consent to my including you in my sample with the nurses I hope to study in the Intensive Care Units. I would like to invite you to participate in this research study.

The purpose of the study is to elicit and compare nurses and families' perception of family needs in the Intensive Care Unit. The aim of the study is to compare your opinions of family needs during critical illness experience with the view of family members. Nurses are ideally positioned to meet family needs in the delivery of holistic care because of the close proximity to the patients in the Intensive Care Units. However, literature suggests where family needs are perhaps misunderstood and not adequately met this may lead to feelings of frustration, difficult relationships, and dissatisfaction with the quality of care.

Should you agree to participate, I will ask you to sign a consent form and complete a pre-designed questionnaire. It is anticipated that this would take 15-20 minutes of your time to complete the questionnaire. The interview will be conducted by me at a time that is most suitable and convenient to you. The interview will be conducted in a quiet area or office in the Intensive Care Unit.

Participation in the study is entirely voluntary. You may choose to participate or withdraw from the study at any time, which will not have any effects on the services that you provide or receive from the health care providers or administrators in this hospital.

I appreciate that you will derive no benefit from participating in the study. However, it is hoped that the completed study will clarify nurses understanding of family needs during critical illness period and improve our service delivery on family care. No reports in this study will identify you in any way. Results of the study will be given to you should you so wish.

The appropriate people and research committees of the University of the Witwatersrand, Johannesburg hospital have approved the study and its procedures.

Should you have any further inquiries you may also contact the Human Research Ethics Committee of the University of Witwatersrand on the following telephone number: 0117171234.

Thank you for taking time to read this information letter. Should you require any further information regarding the study or your rights as study participant you are free to contact me on the following number: **0766922520.**

APPENDIX C

COMPARISON OF NURSES' AND FAMILIES' PERCEPTION OF FAMILY NEEDS IN THE INTENSIVE CARE UNIT AT A TERTIARY PUBLIC SECTOR HOSPITAL

FAMILY MEMBER INFORMATION LETTER

Dear……
(Name of family member)

My name is Rodwell Gundo and I am currently registered as a student at the University of the Witwatersrand in the Department of Nursing for the degree of Master of Science in Nursing (Intensive Care Nursing). I hope to conduct a research project and would like to ask you to consent to my including you in my sample with the families I hope to study whilst their relative is in the Intensive Care Unit. I would like to invite you to participate in this research study.

The purpose of the study is to elicit and compare nurses and families' perception of family needs in the Intensive Care Unit. The aim of the study is to compare your opinions of family needs and nurses' view of family needs. As nurses are ideally positioned in close proximity to the patients in the Intensive Care Units they endeavour to meet the needs of family members in the provision of holistic care. However, literature suggests where family needs are perhaps misunderstood and not adequately met this may lead to feelings of frustration, difficult relationships, and dissatisfaction with the quality of care.

Should you agree to participate, I will ask you to sign a consent form and complete a pre-designed questionnaire. It is anticipated that this would take 15-20 minutes of your time to complete the questionnaire. The interview will be conducted by me at a time that is most suitable and convenient to you, and will be conducted in the visitor's room in the Intensive Care Unit where your relative is admitted.

Participation in the study is entirely voluntary. You may choose to participate or withdraw from the study at any time, which will not have any effects on the services that you or your relative may receive from this hospital or the health care providers.

I appreciate that you will derive no benefit from participating in the study. However, it is hoped that the completed study will clarify nurses understanding of family needs during critical illness period and improve our service delivery on family care. No reports in this study will identify you or your relative in any way. Results of the study will be given to you should you so wish.

The appropriate people and research committees of the University of the Witwatersrand, Johannesburg Hospital have approved the study and its procedures.

Should you have any further inquiries you may also contact the Human Research Ethics Committee of the University of Witwatersrand on the following telephone number: 0117171234.

Thank you for taking time to read this information letter. Should you require any further information regarding the study or your rights as study participant you are free to contact me on the following number: **0766922520.**

APPENDIX D

COMPARISON OF NURSES' AND FAMILIES' PERCEPTION OF FAMILY NEEDS IN THE INTENSIVE CARE UNIT AT A TERTIARY PUBLIC SECTOR HOSPITAL

NURSING STAFF CONSENT FORM

I…….. (Name)……. (Position) give permission to participate in the study.

I have read and understood the content of information sheet and I have been given the opportunity to ask questions, where deemed necessary, about the study and its procedures.

…… Date

……. Signature

APPENDIX E

COMPARISON OF NURSES' AND FAMILIES' PERCEPTION OF FAMILY NEEDS IN THE INTENSIVE CARE UNIT AT A TERTIARY PUBLIC HOSPITAL

FAMILY MEMBER CONSENT FORM

I…… (Name), the ……. (Relationship) of the patient give permission to participate in the study.

I have read and understood the content of information sheet and I have been given the opportunity to ask questions, where deemed necessary, about the study and its procedures.

…… Date

……. Signature

APPENDIX F

DATA COLLECTION QUESTIONNAIRE FOR NURSES

STUDY TITLE: COMPARISON OF NURSES' AND FAMILIES' PERCEPTION OF FAMILY NEEDS IN THE INTENSIVE CARE UNIT AT A TERTIARY PUBLIC SECTOR HOSPITAL

CODE NUMBER

PART 1: DEMOGRAPHIC DATA

Instruction: *Please indicate your response inside the box against each item.*

1.0 Age

2.0 Gender

3.0 Professional category

4.0 Training in Intensive and critical care (Y/N)

5.0 Years of experience in Intensive Care Unit (*Tick appropriate box)*

0-5 years	5-10 years	More than 10 years

PART 2: FAMILY NEEDS

Instruction: *The following statements relate to family needs in Intensive Care Unit. Please indicate the extent of your **agreement** or **disagreement** against each of the statements*

STATEMENTS ON FAMILY NEEDS	***Strongly Disagree***	***Disagree***	***Agree***	***Strongly Agree***
	1	**2**	**3**	**4**
Need for support				
1. To have explanations of the environment before going into the Intensive Care Unit for the first time.				
2. To have directions as to what to do at the bed side				
3. To talk about negative feelings such as guilt or anger.				
4. To have another person with you when visiting the Intensive Care Unit				
5. To have friends nearby for support				
6. To feel that health care professionals care about the patient				
7. To have someone concerned about your health				
8. To have someone to help with financial problems				
9. To be alone at any time				
10. To feel it is acceptable to cry				
11. To have clergymen available				
12. To be told about other people who could help with problems				
13. To be told about someone who could help with family problems				
14. To have a place to be alone while in the hospital				
Need for information				
15. To know which health care professionals could give what type of information				
16. To know what medical treatment the patient is receiving				
17. To know why the patient has to undergo various procedures				
18. To know exactly what is being done for the patient				
19. To talk to the doctor every day				
20. To be phoned at home about changes in patient's condition				
21. To know about the types of health care professionals taking care about the patient				
22. To have specific person to contact at the hospital when unable to visit				

23. To be informed about chaplain service				
Need for closeness or proximity				
24. To see the patient frequently				
25. To receive daily information about the patient				
26. To be told about the transfer plans while they are being made				
27. To have visiting hours changed for special circumstances				
28. To visit any time				
29. To have visiting hours start on time				
30. To help with patient's physical care				
31. To have waiting room near the patient				
32. To talk to the same nurse everyday				
Assurance				
33. To have questions answered honestly				
34. To know the expected outcome				
35. To have explanations given that are understandable				
36. To know details concerning the patient's progress				
37. To talk about the possibility of the patient's death				
38. To feel there is hope				
39. To be assured that the best possible care is being given to the patient				
Need for Comfort				
40. To feel accepted by health care professionals				
41. To have comfortable furniture in the waiting room				
42. To have a bathroom near the waiting room				
43. To have good food available in the hospital				
44. To be assured it is acceptable to leave the hospital for a while				
45. To have a telephone near the waiting room				

PART 3: OPEN ENDED QUESTION

Is there anything you wish to add?

APPENDIX G

DATA COLLECTION QUESTIONNAIRE FOR FAMILY MEMBERS

STUDY TITLE: COMPARISON OF NURSES' AND FAMILIES' PERCEPTION OF FAMILY NEEDS IN THE INTENSIVE CARE UNIT AT A TERTIARY PUBLIC SECTOR HOSPITAL

CODE NUMBER

PART 1: DEMOGRAPHIC DATA

Instruction: *Please indicate your response inside the box against each item.*

1.0 Age

2.0 Gender

3.0 Home language

4.0 Population Group

5.0 Level of Education

6.0 Relationship to patient

7.0 Patient's day of admission

8.0 Previous critical care experience (Yes/No)

PART 2: FAMILY NEEDS

Instruction: *The following statements relate to family needs in Intensive Care Unit. Please indicate the extent of your **agreement** or **disagreement** against each of the statements*

STATEMENTS ON FAMILY NEEDS	***Strongly Disagree***	***Disagree***	***Agree***	***Strongly Agree***
	1	**2**	**3**	**4**
Need for support				
1. To have explanations of the environment before going into the Intensive Care Unit for the first time.				
2. To have directions as to what to do at the bed side				
3. To talk about negative feelings such as guilt or anger.				
4. To have another person with you when visiting the Intensive Care Unit				
5. To have friends nearby for support				
6. To feel that health care professionals care about the patient				
7. To have someone concerned about your health				
8. To have someone to help with financial problems				
9. To be alone at any time				
10. To feel it is acceptable to cry				
11. To have clergymen available				
12. To be told about other people who could help with problems				
13. To be told about someone who could help with family problems				
14. To have a place to be alone while in the hospital				
Need for information				
15. To know which health care professionals could give what type of information				
16. To know what medical treatment the patient is receiving				
17. To know why the patient has to undergo various procedures				
18. To know exactly what is being done for the patient				
19. To talk to the doctor every day				
20. To be phoned at home about changes in patient's condition				
21. To know about the types of health care professionals taking care about the patient				
22. To have specific person to contact at the hospital when unable to visit				

23. To be informed about chaplain service				
Need for closeness or proximity				
24. To see the patient frequently				
25. To receive daily information about the patient				
26. To be told about the transfer plans while they are being made				
27. To have visiting hours changed for special circumstances				
28. To visit any time				
29. To have visiting hours start on time				
30. To help with patient's physical care				
31. To have waiting room near the patient				
32. To talk to the same nurse everyday				
Assurance				
33. To have questions answered honestly				
34. To know the expected outcome				
35. To have explanations given that are understandable				
36. To know details concerning the patient's progress				
37. To talk about the possibility of the patient's death				
38. To feel there is hope				
39. To be assured that the best possible care is being given to the patient				
Need for Comfort				
40. To feel accepted by health care professionals				
41. To have comfortable furniture in the waiting room				
42. To have a bathroom near the waiting room				
43. To have good food available in the hospital				
44. To be assured it is acceptable to leave the hospital for a while				
45. To have a telephone near the waiting room				

PART 3: OPEN ENDED QUESTION

Is there anything you wish to add?

APPENDIX H

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
Person No: 328667
PAG

Mr R Gundo
Karonga District Hospital
Private Bag 1
Karonga
Malawi

Dear Mr Gundo

Master of Science in Nursing: Approval of Title

We have pleasure in advising that your proposal entitled "*Comparison of nurses and families' perception of family needs in intensive care unit at a tertiary public sector hospital*" 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

Mrs Sandra Benn
Faculty Registrar
Faculty of Health Sciences

APPENDIX I

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Gundo

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER M081014**
PROJECT	Comparison of Nurses and Families' Perception of Family needs in Intensive Care Unit at a Tertiary Public Sector Hospital
INVESTIGATORS	Mr R Gundo
DEPARTMENT	Dept of Nursing Education
DATE CONSIDERED	08.10.31
DECISION OF THE COMMITTEE*	Approved unconditionally

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

DATE 08.11.28 **CHAIRPERSON** .....
(Professor P E Cleaton Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Dr G Langley

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 abovementioned 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...

APPENDIX J

Gauteng Department of Health

Office of the CEO
Enquiries: M. Motjelele
(011): 488-3792 / 3
(011) 488-3753

05th February 2009

Mr Rodwell Gundo
Department of Nursing Education
Wits

Dear Mr Gundo

RE: Permission to Conduct a Study re: "Comparison of Nurses and Families' Perception of family needs in the Intensive Care Units" at Charlotte Maxeke Johannesburg Academic Hospital.

Permission is granted for you to conduct the above research as indicated in your request provided:

1. The 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.

Yours sincerely

Dr. S. B. Mfenyana
Acting Chief Executive Officer

Charlotte Maxeke Johannesburg Academic Hospital

APPENDIX K

Dear Researcher,

Please find enclosed a copy of the *Critical Care Family Needs Inventory*. You have my permission to use and/or translate the tool to meet your research needs as long as credit is referenced in your work. The psychometric properties of the instrument are published in Leske, J.S. (1991). Internal psychometric properties of the Critical Care Family Needs Inventory, Heart & Lung, 20, 236-244. Please do not hesitate to contact me if you have any questions. Best wishes for a successful research project.

Sincerely,

Jane S. Leske PhD, RN