THE NURSING PROCESS AS A MEANS OF IMPROVING PATIENT CARE

by

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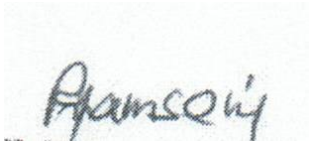
DECLARATION

I declare that **THE NURSING PROCESS AS A MEANS OF IMPROVING PATIENT CARE** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.



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ABSTRACT

Improvement of patient care in any hospital depends primarily on the quality of nursing care. Nursing care is enhanced by the nursing process, which outlines the nursing activities to be provided for a patient. The purpose of this study was to determine to what extent the nursing process could improve the quality of nursing care, and to explore the knowledge limitations of nursing staff in implementing the nursing process, nursing care planning and proper documentation.

Quantitative research, making use of an exploratory, descriptive and contextual design was conducted, utilising a structured questionnaire for data collection. Registered nurses (n=120) employed at a Referral Hospital in Tanzania served as the respondents. The findings revealed a lack of knowledge in understanding and applying the concepts of the nursing process, especially in formulating the nursing diagnosis. Recommendations pertaining to a focused in-service training programme, integrating theory and practice, were made to enhance the effective implementation of the nursing process.

Key concepts

Nursing process; nursing care plan; nursing documentation.

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List of abbreviations

NANDA	North American Nursing Diagnoses Association
KCMC	Kilimanjaro Christian Medical Centre
MOH	Ministry of Health
RN	Registered Nurse
SPSS	Statistical Package for Social Sciences
USA	United States of America
WHO	World Health Organization

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CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

The demand for quality care and the emergence of managed care have had a major impact on clinical nursing practice. The Nursing Council of Tanzania has established a strategy of ensuring that the nursing process is practiced in every consultant and regional hospital. In view of this, the Nursing Services Unit in the Ministry of Health has formulated guidelines known as the Tanzanian Nursing Practice Model. This is based on the nursing process to ensure the systematic provision of nursing care to all the patients. This guideline was first published in 2002 (United Republic of Tanzania. Ministry of Health 2002b).

Improvement of patient care in any hospital depends primarily on the quality of nursing care. Nursing care is enhanced by nursing care plans which outline the nursing activities to be provided for a patient. Nursing care plans are a set of actions the nurse will implement to solve the nursing problems identified for a particular patient**,** acts as a bridge to the nursing process. The nursing process was developed as a way of providing holistic patient care, and has globally been considered as a framework for nursing practice and nursing education.

According to Kozier, Erbs, Berman and Synder (2008:160), “the nursing process is a systematic patient centered method of structuring the delivery of nursing care”. The nursing process entails gathering and analysing data in order to identify patient’s health care problems as well as their strengths and potential for recuperation. It also supports the nurse in developing a continuous review plan of nursing interventions to achieve mutually agreed upon outcomes with the patient.

Apart from the fact that the nursing process involves documentation of the actions taken, the patient’s records serve as the basic source of information which provides evidence of the care that has been provided to a patient. Nursing care plans should be

closely followed otherwise nursing care tends to become fragmented and based predominantly on institutional routines and schedules. This could lead to patient dissatisfaction and complaints and may lead to some of the necessary treatment activities being overlooked. Observations have indicated that patients have been disadvantaged due to the omission of certain components of care because the nursing process was not followed.

In this chapter an orientation to the study is given including the background, problem statement, research objectives, research methodology and ethical consideration.

1.2 BACKGROUND

The United Republic of Tanzania is a union between the former Tanganyika and Zanzibar, which was formed in April 1964. Tanzania lies between the latitudes of 1^{o} and 12^{o} degrees south and longitudes of 30^{o} and 40^{o} degrees east. It is the largest country in East Africa, occupying an area of 945.087 square kilometers. It has common boarders with eight neighboring countries, Kenya and Uganda to the north, Rwanda, Burundi and the Democratic Republic of Congo to the west, Zambia, Malawi and Mozambique to the south.

Figure 1.1 Map of Tanzania

(United Republic of Tanzania. Ministry of Health 2002a)

1.2.1 The health care system in Tanzania

The health sector in Tanzania is understaffed, operating at less than the international standards. In Tanzania the number of physicians is 300 per density population of 10,000, which is less than 0.5 of the actual requirement. The number of nurses is 9,440 per density population of 10,000 which is less than two globally of the actual requirement (World Health Statistics 2010:122). Globally the number of physicians is 14 per 10,000 population, and nurses are 28 per 10,000 population (World Health Statistics

2010:1-3). The maternal mortality ratio and child mortality rates are relatively high. According to the World Health Statistics (2010:24-26), maternal mortality rates are 950 per 100,000 live births, and child mortality rates are 103 per 1,000 live births. Globally, maternal deaths are 27 per 100,000 live births, and child mortality rates are 67 per 1,000 live births (World Health Statistics 2010:13-14).

The primary health care services in Tanzania begin at the village level. There are dispensaries in each village, where minor problems could be attended to by Nurse Assistants and Clinical Officers. The Nurse Assistants are nurses who are oriented to the basic nursing activities for a period of two years after secondary education and the Clinical Officers are doctors oriented to medicine for a period of three years after secondary education. This is followed by the next level of care, which is a health center which is normally available within five kilometers from the dispensaries. Unresolved patient conditions are referred to District hospitals. District hospitals refer patients to Regional hospitals, and Regional hospitals refer patients to a Consultant referral hospital.

Tanzania is divided into four zones. The northern, southern and western highlands and the north-east zones. In each zone there is a Consultant Referral hospital whereby patients from Regional hospitals are referred to for expert care management. The Consultant Referral hospitals are equipped with highly qualified staff and advanced equipment to serve the needs of the referred patients. They have a bed capacity ranging from 500 to 1000.

There are three categories of nurses who function in the Tanzanian Health Services namely: Medical Attendants, Enrolled Nurses, and Registered Nurses. The nursing staff working in the health services consist of registered nurses who have undergone a four year integrated diploma nursing course. The integrated diploma nursing course enables nurses to learn all the disciplines of nursing, which are General nursing, Midwifery, Community Health, Research, Psychiatry and Leadership, so that they can attend to any situation. Subsequently they are awarded a Diploma on completion of their training. There is also a group of nurses with a Certificate in Nursing. This covers three years of training. The Diploma and the Certificate Nurses lead to different registrations on the register of the Nursing Council. The Diploma Nurses are registered and the Certificate Nurses are enrolled on the roll. The Certificate Nurses do not have

the components of research, leadership and community experience in their curriculum. The less experienced group is the medical attendant with a one year course of training which encompasses ward cleaning and patient hygiene.

There are a higher proportion of registered nurses in referral hospitals compared to regional and district hospitals. The ratio of registered nurses to patients in referral hospitals is usually 1 nurse to 8 patients, in the regional and district hospitals are mostly enrolled nurses and medical attendants employed at a ratio of one nurse to 20 patients. Fewer registered nurses are employed in regional and district hospitals, and are mainly responsible for supervision of nursing activities (United Republic of Tanzania. Ministry of Health. National Health Policy 1990:8-17).

1.2.2 Nursing situation at the referral hospitals

The Government of Tanzania has six referral hospitals. One is a national hospital situated in the capital city of the country. This hospital provides leadership in view of complex health problems, including transferring patients external to the country. Two hospitals among the referral hospitals deal with specialised conditions (such as Mental Health and Tuberculosis). The remaining three are Zonal referral centers. All the referral hospitals have the following three pillars: care, teaching, and research.

The specific referral hospital, where this study was conducted, has a bed capacity of 500, but daily census ranges from 500 to 550. There are 10 clinical departments, and three clinical diagnostic services. The clinical departments are: Paediatric and Child Health, Internal Medicine, General Surgeries, Orthopedics, Obstetric and Gynaecology, Eye, Ear Nose and Throat, Urology, Casualty and Out patients. The diagnostic services are a Clinical laboratory, Radiology, and a Research laboratory.

Nurses deal with people who are experiencing a transition in their health status and relationships while they are ill. Taking care of patients and handling these transitions requires nurses with sufficient knowledge and competencies. The holistic way of approaching patient problems is through the use of the nursing process (George 2002:192). The nursing process enables the nurse to extract important information from the patient. This in turn facilitates the development of a plan of care, and if appropriately documented then progressive holistic care of the patient and his/her condition could be

implemented. Saranto and Kinnunen (2009:465) on evaluating nursing documentation, state that “good nursing care depends crucially on access to quality information”. To obtain this information, nurses need to spend time with the patients and in doing so patients’ needs are identified and met, frustrations and complaints could be reduced, and improvement of care enhanced.

Subsequent to the first step in the nursing process, namely assessment, nursing care planning is an essential part in nursing practice that provides a written means of planning patient care to be communicated to members of health care team, and guide discharge actions based upon nursing diagnosis (Murray & Atkinson 2000:127) Planning is a crucial component in nursing care. A care plan also known as a plan of care, serves as a road map that guides all staff members who are involved in the care of a specific patient (Kluwer 2008:1).

1.3 PROBLEM STATEMENT

The nursing profession in Tanzania is experiencing a change towards more independent practice, where nurses are required to demonstrate an explicit knowledge of nursing care. In 2002 the Nursing Services division in the Ministry of Health of Tanzania made several regulations regarding nursing practice. Following these regulations the nurse has an obligation to implement the scientific nursing process and to document accurately and sufficiently, not only on the performed nursing activities, but also the rationale for implementation (United Republic of Tanzania. Ministry of Health 2008).

At the same time Tanzanian Nursing Practice Model was instituted. This prescribed the nursing process approach to be adopted in all the country’s health services, with the purpose of ensuring uniformity in the provision of holistic nursing care in all regional and consultant hospitals.

Despite these Ministerial efforts to improve the quality of nursing care, reports have indicated that there have been incidences which have resulted in nurses losing their jobs for not implementing the nursing process and/or as a result of not documenting the care actions taken or provided. For example, due to lack of documentation a patient resulted in having a craniotomy instead of a knee operation. The nurses were

suspended and some lost their jobs (United Republic of Tanzania. Ministry of Health 2008).

In a referral hospital every patient is supposed to have a nursing care plan. Observations have shown that in this referral hospital with more than 500 patients on a regular basis, the approximated 20 patients who are admitted in the Intensive care rooms have nursing care plans, while the majority of the other patients do not.

Observations have also demonstrated that most of the patient notes do not have nursing information other than implementation of actions conducted after physician's orders. This lack of appropriate and sufficient nursing records raises various problems, such as:

- Difficulty in knowing what care had been provided, resulting in loss of continuity of care.
- Ethical legal problems such as disciplinary action due to lack of evidence on sensitive issues, such as blood transfusion.
- Difficulty in performing retrospective audits and research activities.

Despite the Ministerial regulations prescribing the compulsory application of the nursing process for all patients in public and private hospitals, observations and Ministerial reports indicate that this is not the case, having negative consequences for patients. If the situation is allowed to continue there could be difficulty in evaluating patients' responses to care and their progress, loss of continuity of care resulting in loss of patient satisfaction, and lack of evidence to support nurses in case of complaints or litigation.

1.4 RESEARCH QUESTIONS

Based on the problem statement in view of the scientific nursing process not being followed and a lack of nursing care plans, the following research questions arise:

- Does the nursing staff understand the benefits and value of implementing the nursing process?
- Are the registered nurses able to develop and implement nursing care plans?

- What are the nurses' understanding of, and views about nursing care documentation in this hospital?

1.5 PURPOSE OF THE STUDY

The purpose of this study is to determine to what extent the nursing process and nursing care plans could improve the quality of nursing care, and to explore the knowledge limitations of nursing staff in implementing the nursing process, nursing care planning and documentation. Furthermore, to determine the nurses' knowledge and skills in applying the nursing process, thereafter an in-service training programme will be developed to enhance the application of the nursing process in public hospitals.

1.5.1 Study objectives

The objectives of this study are to:

- Ascertain the nursing staffs' understanding of the benefits and value of implementing the scientific nursing process.
- Determine to what extent the registered nurses are able to develop and implement nursing care plans.
- Determine the registered nurses' understanding of, and views about nursing care documentation.
- Develop an in-service training programme for nurses on the implementation of the nursing process and nursing care plans.

1.6 SIGNIFICANCE OF THIS STUDY

Patient records including the nursing records are considered legal documents, and have to comply with certain requirements. Planning of care and accurate and complete documentation are essential components in determining the patient's progress. Nursing care actions or treatment which are not documented cannot be considered to be true, or that they have been implemented. Furthermore, future development of nursing care depends on accurate nursing information in the patient's records, it is thus essential that nursing records be completed comprehensively and accurately. Another advantage of

accurate and complete recorded nursing information is that research studies can be conducted focusing on previous nursing information.

Application of the scientific nursing process in nursing care provision and accurate record-keeping can contribute to improving nursing outcomes, and thereby help to address patients' complaints regarding the quality of nursing care. This study will assist in determining the knowledge limitations of nursing staff in the implementation of the scientific nursing process, nursing care planning and documentation of the actions taken. The findings will help develop training guidelines in view of in in-service training for nurses and students.

1.7 THEORETICAL FRAMEWORK

Theory is the ultimate aim of science in that it transcends the specifics of a particular time, place, and group of people in the relationships among variables (Polit & Beck 2008:66). Theories and conceptual models are the primary mechanisms by which researchers organise findings into a broader conceptual context (Polit, Beck & Hungler 2001:144 cited in Cherry & Jacob 2005:51). A theory is generally considered an abstract generalisation that presents a systematic explanation about how phenomena are interrelated, whereas a conceptual model deals with concepts that are assembled because of their relevance to a common theme (Cherry & Jacob 2005:51). According to Cherry and Jacob (2005:51), the terms framework, conceptual models and nursing theories are often used interchangeably.

The theoretical framework for this research is the scientific nursing process. The nursing process is defined as a patient centered method for structuring the delivery of nursing care (Kozier et al 2008:160). According to Meleis (1997:113), the nursing process was developed as a tool for nursing practice, and was introduced into the field by Orlando (1961). It has become central to many publications as the scientific process for delivering nursing care.

The main purpose of the nursing process is to provide structured care to patients and in so doing, nurses gather information to asses patient problems and to evaluate the care that has been given (Parahoo 2006:106). The nursing process helps nurses function in a professional manner that is, using an established method and body of knowledge.

Therefore nurses should use the nursing process throughout their professional career as a means of striving for quality. The nursing process is divided into five phases, which are assessment, nursing diagnosis, planning, implementation, and evaluation.

The scientific nursing process is a systematic and rational method of planning which provides individualised care to patients, families, groups and communities. It is cyclic and dynamic in nature (Alfaro-LeFevre 2010:5).

1.8 DEFINING TERMINOLGY

- **Patient care**: A patient is a person who is ill or undergoing medical treatment for a disease. However, there is a considerable debate on how to use this term. Other words like client, resident or guest are also used (Keane 2003:1319). For the purpose of this study the word “patient” will be used. Care has been defined by Hall (1995), as cited in George (2002:113) as “the exclusive aspect of nursing that provides the patient with bodily comfort through the laying on of hands and provides an opportunity for closeness,” and by Leininger (1995:105) as cited in (George 2002:493) as a “phenomena related to assistive, supportive, or enabling behavior toward, or for another individual or group with evident or anticipated needs to ameliorate or improve a human condition or lifeway”. In view of the aforementioned, patient care is assistance to an individual who is sick and in need of a support.

- **Quality care**: Quality is the level of excellence or value of something. It is also the continuous striving for excellence and conforming to specific approaches or guidelines (Davis 1994 cited in Stanhope & Lancaster 2004:51). Quality care in the nursing professional context refers to the excellence of services provided by nurses to their clients/patients. Quality care in health care programmes is assessed by measuring to what extent the performance of individuals conform to the standards set by the accrediting agencies. Quality has four components: professional performance, efficient use of resources, minimal risk or injury to the client associated with care, and client satisfaction (Stanhope & Lancaster 2004:523).

- **Scientific nursing process**: Nursing is defined as including the maintenance of health, prevention of illness, care of a person during acute phases of illness, restoration of health and where all of these are not possible, helping to sustain the individual to a peaceful death (Keane 2003:1230). Process is defined as a series of operations or events leading to the achievement of a specific result (Keane 2003:1443). Barnum (1994) cited in (George 2002:5) states that a complete nursing theory is the one which contains context, content, and process. Context is the environment in which the nursing actions take place, content is the subject of the theory, and process is the method nurses use in applying the theory. The nursing process is a systematic, client centered method of structuring the delivery of nursing care (Kozier et al 2008:160).

- **Nursing care plans**: A nursing care plan is the written reflection of the nursing process as it applies to the nursing care extended to a patient (Gulanick & Myers 2007:3).

- **Documentation**: Documentation is the act of supplying documents or references (Collins 1990:245). Documentation is the written and legal recording of interventions that concern the patient, and it includes a sequence of processes (Walsh 2002:12). The registered nurse is responsible for ensuring that the legal requirements of documents are upheld.

- **Records**: Records are printed forms with pre-defined categories which aid in documenting the patient's medical history and background, and detailing the patient's problems in ways that are medically relevant (Mallik, Hall & Howard 2004:15). The role of the registered nurse in documentation and record-keeping is to facilitate information flow that supports continuity, quality, and safety of care (Hughes 2008:1).

1.9 RESEARCH METHODOLOGY

Research methods are the techniques used to structure a study, and to gather and analyse information in a systematic fashion (Polit & Beck 2008:765). Quantitative methods will be used to gather information for this study.

1.9.1 Research design

Research design is a plan according to which the research must be carried out (Stommel & Wills 2004:32). This study will be based on the quantitative approach, making use of an exploratory, descriptive and contextual design.

- **Quantitative research** encompasses an investigation of phenomena that lend themselves to precise measurement and quantification, often involving a rigorous and controlled design (Polit & Beck 2008:763). Through a structured questionnaire the knowledge of the nursing staff about the nursing process and nursing care planning will be determined.

- **Exploratory design** refers to the exploration of the full nature of a phenomena, the manner in which it is manifested, and the other factors to which it is related (Polit & Beck 2008:20). In this study the aim is to explore the nurses' knowledge about the benefits and value of the nursing process, and subsequent patient care planning up to the standards of patient record documentation. According to LoBiondo-Wood and Haber (2006:240), descriptive, exploratory or comparative surveys collect detailed descriptions of existing variables, and use the data to justify and assess current conditions and practices, or to make plans for improving health care practices.

- **Descriptive design** is aimed at observing, describing and documenting aspects of a situation as it occurs naturally, and sometimes to serve as a starting point for hypothesis generation or theory development. It tends to answer questions such as what, why, when, and how (Parahoo 2006:184). This design is appropriate for this study as it involves a description of the current situation of nursing knowledge and practice in view of the nursing process at a referral hospital in Tanzania.

- **Contextual design** describes the events within the concrete, natural context in which they occur (Mouton 2006:272). In this study the context is the clinical setting in a referral hospital in Tanzania. The nurses will be approached to provide information pertaining to their work scenario.

1.9.2 Population and sampling

Research is focused on a specific population, from which a sample is usually drawn to participate in the study.

1.9.2.1 Population

The population for a study is the group of subjects, usually of people about whom we want to draw conclusions (Mouton 2006:100). Apart from that, population could also be defined as all the elements (individuals, objects, or substances) that meet certain criteria for inclusion in a given universe (Kaplan 1964; Kerlinger & Lee 2000 cited in Burns & Grove 2005:40). The population for this study will be registered nurses with three and more years relevant work experience at this particular hospital.

1.9.2.2 Study sample

According to Burns and Grove (2005:750), a sample is a subset of the population that is selected for a study, and sampling includes selecting groups of people, events, behaviours or other elements with which to conduct a study. The criterion for this study is registered nurses with three or more years work experience at the hospital where the study is conducted. The sampling frame entails listing every member of the population based on the sampling criteria (Burns & Grove 2005:750). Simple random sampling was utilised.

1.9.3 Data collection

Permission was sought from the authorities before data collection was planned and implemented. Data is the pieces of information obtained in view of the objectives of the study (Polit & Beck 2008:751). Data collection is the precise, systematic gathering of information relevant to the research purpose, or the specific objectives, questions or hypothesis of a study (Burns & Grove 2005:733).

1.9.4 Data collection instrument

The data collection tool for this study was a structured questionnaire. The development, validity and reliability of the data collection instrument will be fully discussed in chapter 3.

1.9.5 Data analysis

Data consists of information obtained from the data collection process, and data analysis is the systematic organisation and synthesis of the research data (Polit & Beck 2008:751). The data will be analysed using descriptive procedures.

1.10 ETHICAL CONSIDERATIONS

Ethics is an academic discipline based in the philosophical and social sciences that is concerned with both descriptive and prescriptive questions of morality (Stommel & Wills 2004:373). In a discipline that involves research with human beings or animals, the researchers have to address a range of ethical considerations. This is in order to ensure the rights of those humans or animals being studied are protected.

The following ethical considerations will be observed in this study:

- **The right to protection from exploitation**

Freedom from exploitation in research means that the research study should not place people at a disadvantage or expose them to situations that they have not been explicitly prepared for (Polit & Hungler 1999:134). The nurses will be assured that the information which will be provided will be treated confidentially, and that it will not be used as a means of punishing them for failing to fulfill their duties correctly.

- **The principle of self-determination**

The principle of self determination, means that the prospective participants have the right to decide voluntarily whether to participate in a study, or not, without the risk of

incurring any penalties or prejudicial treatment (Polit & Hungler 1999:136). The nurses will have the right to voluntarily decide whether to participate or not.

- **The informed consent**

Informed consent is viewed as a process by which the researcher and the potential study participant communicate about the goals, benefits and risks of the research (Stommel & Wills 2004:387). The participants will be requested to participate freely, there will be no payment, the purpose of the study will be explained to them, the time involved, that confidentiality will be maintained, and that they will be requested to complete the questionnaire accurately. Furthermore, they are able to terminate participation at any time.

- **The right to anonymity**

Anonymity is when the researcher can not match a given response with a given respondent (Mouton 2006:523). The right to anonymity refers to protection of participants' confidentiality to such an extent that the researcher cannot link individuals with the information provided (Polit & Beck 2008:747).

The participants will be informed of their right to protection of their identity. The questionnaires will have code numbers, and participants will not write their names on the questionnaires.

- **The right to confidentiality**

The terms confidentiality and privacy are interrelated. Privacy refers to the right of an individual to control the personal information or secrets that are disclosed to others. Confidentiality demands non-disclosure of private or secret information with which one entrusted to another person (Burkhardt & Nathaniel 2008:67). While obtaining informed consent the participants will be told that their personal identity would not be disclosed. Their questionnaire would not have any identifier, but will be supplied with code numbers.

1.11 SCOPE AND LIMITATIONS OF THE STUDY

The study aims at gathering information from the nurses, through a questionnaire, in view of their understanding and utilisation of the nursing process and nursing care plan in one specific Referral Hospital. As the researcher is a leader in the selected hospital who supervises the nursing activities at the hospital, the respondents could be cautious in their responses.

1.12 LAYOUT OF THE DISSERTATION

The dissertation will be presented in the following chapters:

Chapter 1: Orientation to the study

This chapter provides an introduction to the nursing process. It also provides background information which includes information about Tanzania and the situation of the health services, the problem statement and the research question, purpose of the study, significance for the study, theoretical framework, including defining key words, research methodology and ethical issues.

Chapter 2: Literature review

Chapter 2 provides an overview of the relevant literature defining and explaining nursing, the nursing process, nursing care planning and the importance of documentation.

Chapter 3: Research methodology

Chapter 3 describes the research design and the methodology.

Chapter 4: Data analysis

Chapter 4 deals with the presentation and analysis of data.

Chapter 5: Conclusion and recommendations

Chapter 5 provides the conclusions and recommendations of the study.

1.13 CONCLUSION

Nurses are the backbone of any health service, and a hospital becomes reputable if the nursing care leads to patient satisfaction and vice versa. Documentation of any care which has been provided is a legal requirement and is being emphasised by the Nursing Services unit in the Ministry of Health (United Republic of Tanzania. Ministry of Health 2002b). Quantitative methods will be used to explore and describe the knowledge of the nursing staff in implementing the nursing process and nursing care plans in a specific context, namely a Referral Hospital in Tanzania. This chapter provided a background to the study, the problem statement was explained, the purpose and objectives of the study were indicated, and the research methodology was briefly described.

In the next chapter the literature review will be discussed.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review is an extensive, systematic and critical review of the most important published scholarly literature on a particular topic (LoBiondo-Wood & Haber 2006:572). The literature review for this study was conducted systematically using the concepts of the nursing process in order to obtain a deeper understanding of the nursing process, and different methods of improving patient care.

Both primary and secondary sources were reviewed. Primary literature is literature written by the person who has developed the theory, or conducted the research. Secondary sources are materials written by another person who refers to the work of the primary author (LoBiondo-Wood & Haber 2006:569). The key elements for this study namely; the nursing process, nursing care planning, and nursing documentation, are discussed in detail.

2.2 DEFINE NURSING

Historically nursing has been connected with religious orders and the military of which the influence is still positive and negative today (Chitty & Black 2007:74). Furthermore, there are aspects which have become liabilities with the passage of time including unquestioning obedience, which runs counter to the professional values of autonomy and self determination which mitigates against the fair economic value of the work of nursing.

2.2.1 Definition of nursing

The basic definition of nursing is that nursing is a practice of science and the art of the discipline of nursing (George 2002:4). Nursing is also recognised as an emerging profession with a unique perspective on people, environment and health (Walsh

2002:7). Furthermore, according to Walsh (2002:7), nursing involves the application of nursing knowledge to the promotion, maintenance and restoration of health for the individual and family through stressful events, which may include death and bereavement. Knowledge is a central component in nursing for the welfare of patients. According to George (2002:173), the patients' health needs can be viewed as problems, which may be overt as an apparent condition, or covert as a hidden or concealed one. Covert problems can be emotional, sociological, and interpersonal in nature and they might be perceived incorrectly.

According to Abdellah's (1973) theory, cited in George (2002:113) nursing is the use of a problem-solving approach in dealing with nursing problems related to the health needs of the people (George 2002:173). Abdellah notes that a nurse should be knowledgeable in order to approach patient's problems successfully.

According to Walsh (2002:7), there are four concepts central to nursing. These are the patient, the environment, health, and nursing.

- **Patient**

According to Murray and Atkinson (2000:1), the patient is defined as the recipient of nursing care. The patient could be a single individual, but also the family or the community could be the focus of the nursing care. The concept of the patient indicates that the patient being the recipient of nursing care, must always be seen as a person. The patient has a distinct identity in addition to being a member of a family and a community, and he or she is constantly interacting with their environment. They must always be informed of his or her health status, make informed decisions which are compatible with personal beliefs and values, and should actively participate in the care process (Walsh 2002:7).

According to Levine (1990) cited in George (2002:226), the condition of suffering is what makes it possible for a person to seek services of another person. The patient places their trust and dependence on the nurse for as long as the services are required. The goal of the nurse is to provide knowledge and strength so that the patient as an individual, can function as an independent person.

- **Environment**

Environment has been defined as the surrounding matters that influence or modify a course of development (Webster 1999 cited in George 2002:49). Environment represents the person's immediate surroundings, the community, or the universe and all that it contains.

The concept of the environment implies that there is a relationship between the individual and the environment which is dynamic and which influences the health and lifestyle of the individual. Nursing is directed towards managing the way the patient is interacting with the environment in promoting health, preventing diseases, and delivering care in illness (Walsh 2002:7).

Manipulation of the physical environment was found to contribute to the well-being of the patient, thus controlling the environment is a major component of nursing care. Florence Nightingale identified the condition of houses, ventilation and heating, light, noise variety, bed and bedding, cleanliness, rooms and walls, personal cleanliness, and nutrition as the major areas of the environment which the nurse could control to the advantage of the unwell person (George 2002:46).

Control of noise contributes to the health promotion of the patient. The patient should not be disturbed unless necessary and for the purpose of nursing or medical management. Florence Nightingale also believed that variety in the environment was a critical aspect which affects a patient's recovery (George 2002:48). This includes changes in colours, flowers and plants, which were found to calm the mind of the patient.

Bedding is an important part of the environment. Observations have demonstrated that an adult exhales three pints of moisture through the lungs and skin in a 24 hour period. This organic matter enters the sheets and remains there if not changed (George 2002:49).

The most significant part of nursing consists of preserving cleanliness. Ventilation can freshen a room which is stuffy (Nightingale 1859/1992:49 cited in George 2002:49).

Personal cleanliness prevents breakage of the skin. Nutritious and desired food consumed by the patient at the right time was found to promote health.

In view of the environment, Florence Nightingale thought that what the nurse has to do was to put the patient in the best condition for nature to take its course (Nightingale 1859/1992:72 cited in George 2002:51).

- **Health**

Health is a relative state in which one is able to function well physically, mentally, socially, and spiritually in order to express the full range of one's unique potential within the environment in which one is living (Keane 2003:780).

Nurse theorists King (1999) cited in George (2002:252) defines health as a dynamic life experience of the human being. This implies continuous adjustment to stressors in the internal and external environment through the optimum use of one's resources to achieve maximum potential for daily living (King 1989:152 cited in George 2002:252). King further states that health is a functional state, and illness is an interference with that functional state (King 1989:152) cited in George (2002**:**252).

The concept of health is perceived in nursing as a goal to be attained and maintained. The individual's health is measured against a set of standards. Apart from psychological and physiological problems, the nurse is also involved with subjective factors which contribute to the quality of life of the individual (Walsh 2002:8). The effects of unfavorable external environmental factors significant to health such as polluted air, water, noise, and adverse living conditions are often difficult to identify and change.

Nursing is concerned with subjective factors contributing to the quality of life, and that opportunity the individuals have to realise their potential. Health has also other important dimensions like social and psychological attributes (Walsh 2002:14). A philosophical way of viewing health is that of empowering people to fulfill their potential. From this perspective nursing can be viewed as a profession with the intrinsic reward of enabling individuals to reach their potential.

- **The concept of nursing**

The concept of nurse involves the context of the nurse-patient relationship, which is mainly a professional and therapeutic relationship (Walsh 2002:8). The relationship between the nurse and the patient is collaborative and should always meet the patient's goals. The nursing responsibility includes the art of being an advocate for the patients.

King (1981, 1990) cited in George (2002:253) defines nursing as the "nurse and the client using action, reaction, and interaction in a health care situation to share information about their perceptions of each other and the situation, and this communication enables them to set goals and choose the methods for meeting the goals".

The goal of the nurse is to help individuals maintain their health or to gain health (King 1990:3-4 cited in George 2002:253). The nursing domain includes promoting, maintaining, and restoring health and caring for the sick, injured, and dying.

2.2.2 The role of the nurse

The registered nurse, regardless of specialty or work setting, treats and educates patients and the public about various medical conditions, and provides advice and emotional support to patients' family members. Nurses record patients' histories and symptoms and help to perform diagnostic tests, analyse results, and administer treatment and medication, and help patients with follow up and rehabilitation.

Hinchcliff, Norman and Schober (2003:6) state that the nurse's function are to help individual**s**, families, and groups to determine and to achieve their physical, mental and social potential, and to do so in the context of the environment in which they live and work. The role of the nurse is to determine and achieve the welfare and the health of the patient. To foster this, a relationship is required between the nurse and the patient. Planning and discussion with the patient is essential in achieving quality care.

Furthermore, Kozier et al (2008:163) mention that the nurse is required to think critically and to be creative in solving the problems of the patient. Critical thinking in nursing practice is a discipline specific, reflective reasoning process that guides a nurse in

generating, implementing, and evaluating approaches for dealing with client and professional concerns.

Nurses have always been responsible for the care they delivered. Primarily the focus has been on the biomedical model focusing on illness only. The focus has now expanded to promote health both in the hospital setting and outside in the community, these changes in the health services are taking place during the twenty first century (Walsh 2002:5).

According to National Health Policy of the United Kingdom (National Health Service Reports. Nursing Care of the Sick 2009:1-6), nursing care of the sick encompasses the following nursing actions and functions:

- **The patient is at the centre of the nurse's concern**

Nurses care for the sick and injured in the hospitals, where they work to restore health and alleviate suffering. Some patients are discharged from hospital when they still need nursing care. Therefore nurses often provide home care which is similar to the care they provide to patients in the hospital. They also provide care to patients in clinics, health centers and hospitals with few doctors.

- **Care for the patient**

In hospitals nurses care for patients continuously on a 24 hour a basis. They help patients with activities of daily living such as feeding and bathing, which patients would do for themselves if they could. Nurses ensure that patients are able to breathe, see that they receive enough fluids and nourishments, help them rest and sleep, assure comfort, and assist them in eliminating wastes from their bodies. Nurses make independent decisions about the care of patients. Nurses also support the family and relatives of the patient.

- **Collaboration with the doctor to cure the patient**

Currently, nurses play a significant role in assessing patients, diagnosing, evaluating patients and detecting problems. They carry out prescribed treatment and oversee all the activities required to be performed on the patient.

- **Coordination of patient care**

In taking care of the patient, nurses collaborate with other multi-disciplinary members of the health care team. Nurses work closely with doctors, nutritionists, physiotherapists, and other professionals involved in patient care. Nurses plan and supervise the care provided by nurse assistants, and all other nursing activities. They also supervise house keeping staff, and monitor environmental conditions.

- **Protection of the patient**

The nurse has a responsibility of ensuring that the patient is protected from hospital infections due to their vulnerability as a result of being sick, ensuring a safe and clean environment, protecting dignity by ensuring privacy, and making sure that the patient is physically safe.

- **Teaching the patient and family**

Teaching is a major role of the nurse in restoring and promoting health and preventing illness. Nurses teach both the patient and the family about diseases, nutrition, hygiene and exercises.

- **Patient advocacy**

Nurses engage with people during the most critical times of their lives. Nurses interact with people when they are born, when they are injured or ill, and when they die. Patients share the most intimate details of their lives with nurses, they undress for nurses, and trust them to perform painful procedures. Therefore, nurses are trusted to speak on behalf of the patient, advocating for the protection and wellbeing of the patient.

2.3 THE NURSING PROCESS

The nursing process is a step-by-step method of providing care to patients whereby the nurse uses a variety of skills that are purposeful and promote systematic, orderly activities throughout the process. The process has been defined as a series of planned actions or operations directed toward a particular result or goal (Seaback 2001:1).

2.3.1 Definition of the nursing process

The nursing process is the framework for nursing practice in that it provides the mechanisms by which nurses use their beliefs, knowledge, and skills to diagnose and treat the client's response to actual or potential health problems (Iyer, Taptich & Bernocchi-Losey 1995:11).

The concept of the nursing process was developed in the United States of America (USA) in the 1960's and became associated with the books written by Yura and Walsh (1967, 1978, 1983) cited in Habermann and Uys (2005:3). It is a systematic rational method of planning and providing nursing care (Kozier et al 2008:1553). According to George (1995:15), the nursing process is the underlying scheme that provides order and direction to nursing care. The nursing process is the essence of nursing practice which is the tool guiding the nursing profession and helps nurses in decision-making and evaluation. It is a humanistic and intellectual activity in which nurses gather information and test it against personal and professional knowledge. Orlando's theory, which was developed in the late 1950s was established as an essential part of delivering improved nursing care through developing a nursing care plan (Michalopoulos & Michalopoulos 2006:53).

Nurse theorists such as Hall (1955), Johnson (1959), Orlando (1961), and Wildenbach (1963) cited in Kozier et al (2008:175) defined the nursing process as a systematic patient centered method for structuring the delivery of nursing care. It involves gathering and analysing data in order to identify patients' strengths and potential or actual health problems, and it is a continuous process of reviewing plans and interventions to achieve mutually agreed upon outcomes.

The nursing process is grounded in a problem-solving cycle, which usually includes, collecting information and assessing the patient, planning the care and defining the relevant objectives for nursing care, implementing actual interventions, and evaluating the care (Habermann & Uys 2005:3). This is shown in figure 2.1.

It is divided into five phases which are assessment, diagnosis, planning, implementation, and evaluation. It is a systematic and rational method of planning the provision of individualised care for patients, families, groups and communities. It is a cyclic and dynamic patient centered care approach (Alfaro-LeFevre 2010:5).

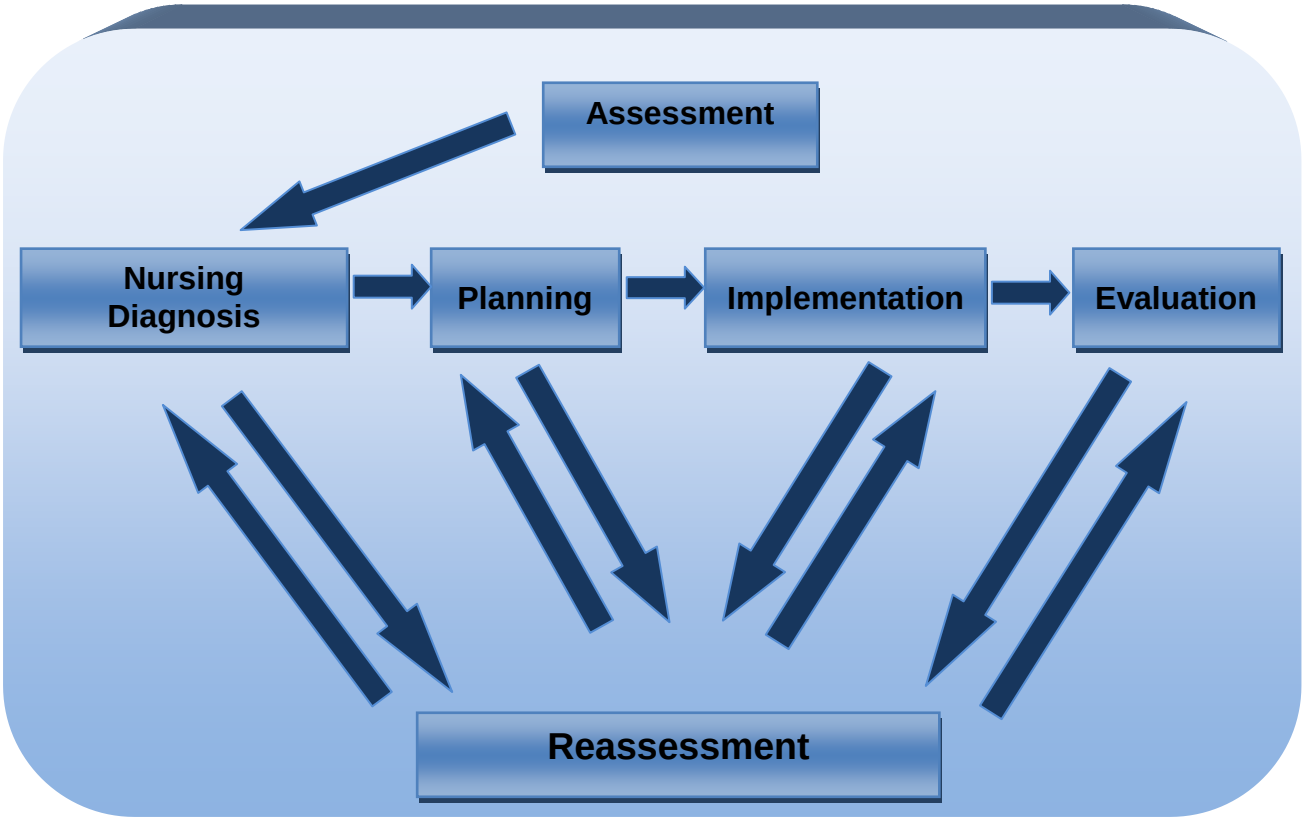

Figure 2.1 The nursing process

(George 2002:24)

The main purpose of the nursing process is to provide optimal care to patients. Thus, nurses gather information to assess the patient's problems and to evaluate the care given (Parahoo 2006:106). The nursing process has been described as being a problem-solving process which consists of a number of stages which are followed in

sequence namely assessment, problem identification, planning, implementation and evaluation.

The nursing process is concerned with individuals who suffer or anticipate a sense of helplessness (Orlando 1961, 1990:12 cited in George 2002:192). Orlando (1972) cited in George (2002:192) further defines a need as a requirement of the patient which if satisfied, relieves or diminishes the immediate sense of inadequacy or loss of well-being. In this process the nurse interacts with the patient in the same manner as would any other two persons. The nurse's function is to correctly identify and relieve the patinet's need.

The nursing process has two major impacts on clinical nursing practice, which is the emphasis on quality and the emergence of managed care as the dominant force in health care financing (Murray & Atkinson 2000:5). There is a significant demand for quality in the provision of nursing care, which emanates from patients themselves, accreditation agencies, consumers of health care and payers of health care. Insurance companies and sectors financing health care are competing for quality and cost effective care and this has driven nurses to seek ways to improve their practice, and to bring satisfaction to the patients they serve.

The nursing process develops confidence and job satisfaction in nurses, and it promotes professional growth. Professional growth is facilitated through the development and implementation of nursing care plans which provide an opportunity of sharing knowledge and experience. It also aids in staff assignments by assisting nurse managers, team leaders and nurse instructors in making the most appropriate patient assignment by showing the complexity involved in individual patient care plans (Murray & Atkinson 2000:8).

2.3.2 Steps in the nursing process

The nursing process consists of five steps namely, assessment, diagnosis, planning, implementation and evaluation (Alfaro-LeFevre 2010:5). The steps are cyclical rather than linear and each of the steps help to organise and prioritise patient care actions, keep the focus of what is important in view of the patient's health status, and form

thinking habits that help to gain confidence and skills needed to think critically in clinical, theoretical, and testing solutions.

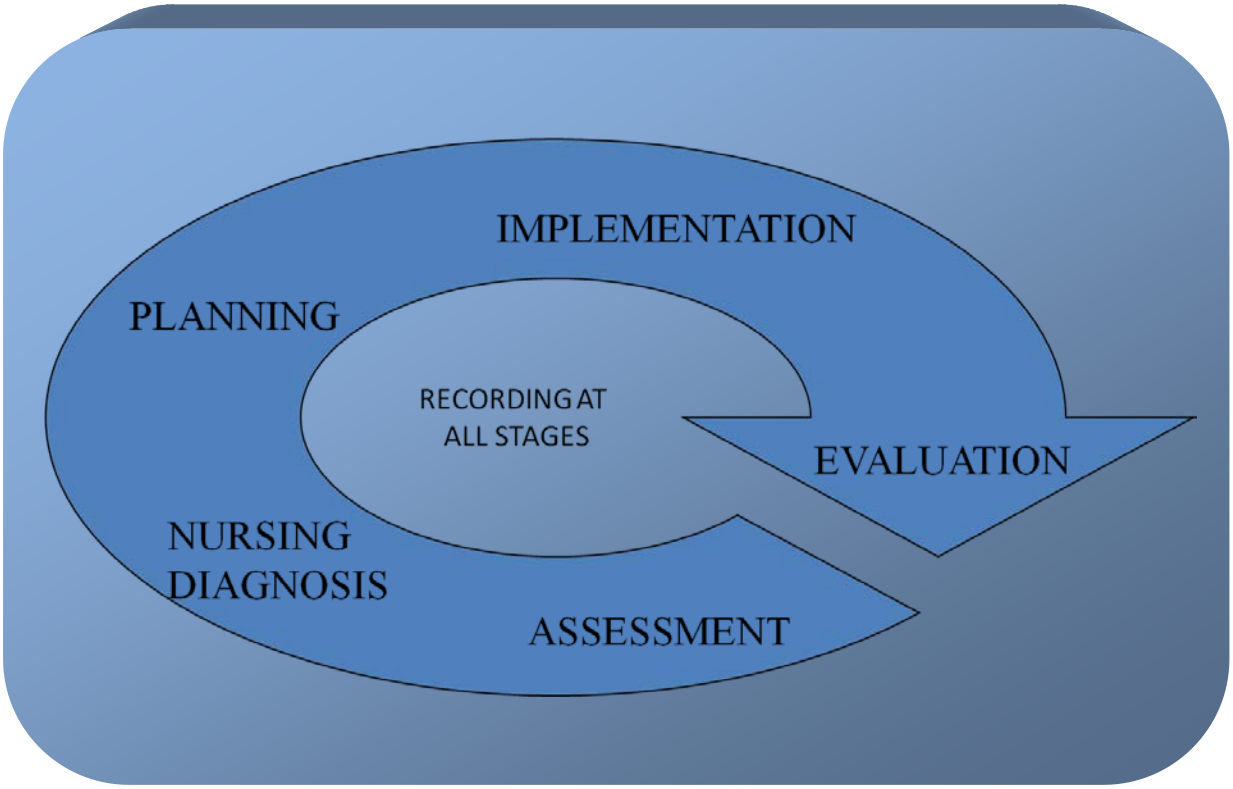

Figure 2.2 Circular nature of the nursing process

The steps of the nursing process describe the activities the nurse will perform when dealing with the patient. Although the terminology may differ between various theorists the meaning remains the same. The steps are:

- **Assessment**

The assessment phase involves the appraisal or evaluation of the patient's situation; it is conducted to gather information in order to make a judgment about the current health status of the patient. It is the first step in the nursing process and it involves the systematic collection of patient data (Kluwer 2008:8). In this phase the nurse takes the patient's history and discuses with the patient his/her health problems.

The assessment process includes inter alia, the reasons which have made the patient seek treatment or admission, pervious illness, allergies, social background including

support, spiritual welfare and also physical and psychological status. A comprehensive assessment gives the nurse a wide range of information related to the patient's health problems, aiding the crucial decisions that have to be made about patient care.

In assessment, the nursing model differs from the medical model whereby the medical model deals with diseases, and the nursing model offers the opportunity for decision-making and problem-solving by allowing freedom to deal with the effects of the health problems on daily living activities (Michalopoulos & Michalopoulos 2006:52).

Assessment is both the most basic and the most complex nursing skill. It is an ongoing process in any nursing intervention. Nurses seek information from the patients by using their five senses, and process it to identify changes in status and thereafter intervene appropriately (Murray & Atkinson 2000:25).

- **Nursing diagnosis**

A nursing diagnosis is a clinical judgment based on information obtained (Magnan & Maklebust 2009:86).

It is the second step of the nursing process and it requires the nurse to use the assessment data to formulate nursing diagnoses and to make clinical judgments about the patient's response to actual, or potential health problems. The term diagnosing refers to the reasoning process whereas the term diagnosis is a statement or conclusion regarding the nature of a phenomenon (Kozier et al 2008:196).

The nursing diagnosis focuses on an individual's health response to the health problem, while a medical diagnosis focuses on the health problem itself (Michalopoulos & Michalopoulos 2006:54). Nurses are empowered to make a nursing diagnosis and to recommend actions for dealing with the nursing diagnosis, despite the fact that some actions taken by nurses are interdependent patient management actions such as prescriptions or protocols ordered by the physicians. Nursing diagnoses are categorised by the North American Nursing Diagnosis Association (NANDA). There are thirteen domains, divided into 106 classes and 155 nursing diagnoses. The nurse can choose a nursing diagnosis from NANDA, which most closely describes the patient's problem (Michalopoulos & Michalopoulos 2006:54).

Table 2.1 Examples of NANDA

Domains	Classifications	Nursing diagnoses
Nutrition	Ingestion	Diagnostic concept
Elimination	Urinary system	Acuity
Perception/Cognition	Attention	Communication

(Kozier et al 2008:206)

- **Planning**

Planning is consciously setting forth a scheme to achieve a desired end or goal (Keane 2003:1377). It is an ongoing process that involves assessing a situation (Kozier et al 2008:1555). In planning the nurse prioritises the problems, formulates goals and considers the desired outcomes, selecting nursing interventions, and recording the nursing interventions.

The purpose of planning is to ensure that the correct combination of activities and resources are used to produce the desired result. Nursing planning is aimed at identifying patient centered goals and the ways and means of achieving the desired goals. The planning phase of the nursing process use problem-solving techniques in which strategies are developed to achieve the desired nursing outcomes.

The planned nursing interventions are communicated to other members of the nursing team on the patient's care plan to promote a consistent approach towards the achievement of outcomes (Murray & Atkinson 2000:127). The nursing interventions are written on the patient's care plan notes as the latter contains instructions for others to follow.

- **Nursing care plans**

The nursing care plan is a written reflection of the nursing process. According to Gulanick and Meyers (2007:5), a nursing care plan records all the information that the nurse collects about a particular patient during assessment, it records nursing

diagnoses, achievable goals, plans, interventions and evaluation (Kluwer 2008:87). Nursing care plans have three major components which are: nursing diagnoses, expected outcome, and nursing interventions (Kluwer 2008:87).

Table 2.2 Example of format for a care plan

Patient name				Patient hospital registration number				
Nursing diagnosis								
Date/ Time	Brief Assessment data	Expected outcome	Nursing interventions	Time	Sign	Evaluation	Time	Sign

(Kluwer 2008:164)

Planning is a crucial component in nursing care. A care plan, also known as a plan of care, serves as a road map that guides all staff members who are involved in patient care (Hoffman 2008:1). It functions as a means of communicating the patient care needs between members of the nursing team, doctors and other health professionals, to ensure those needs are met. It is a holistic tool in the sense that it collates information when the patient is admitted, improves the quality of patient care and forms the basis for discharge.

Planning and documenting enables future follow-up of nursing activities, however, nurses have been seen to spend much of their time in planning and documenting. According to a study conducted by Gugerty, Maranda, Beachley, Navarro, Newbold, Hawk, Karp, Koszalka, Morrson, Poe and Wilhelm (2007:6), it was noted that, “nurses routinely spend 15 – 25% of the work day documenting patient care and in some cases considerably more”. This time spent on documentation was considered too much, as it keeps the nurses away from the patient. Having electronic documentation facilities may improve the quality and completeness of patient records if nurses are computer literate and appropriate patient record systems are available. A survey conducted by Dobalian (2007:8) regarding end of life care indicates that among 815 nursing homes and 5,899 residents, 58% of the population (3,105 residents) had at least one advanced care plan. They were only able to record priority issues.

Nursing care plans are expected to be holistic in terms of patient care. Using the nursing process through nursing documentation provides a possibility of knowing the patient well. The nurse is given an opportunity to discuss the patient's situation/condition with other members of the health care team, such as fellow nurses, physicians, and physiotherapists. It improves the standards of care by providing meaningful steps to follow. A study conducted by Taylor and Wros (2007:211) states that nursing care plans can act as a concept map, and concept mapping supports and facilitates meaningful learning.

A study conducted by Lee (2005:345) regarding information systems, recommended that the objective of the hospital information system should be to improve patient care, integrate quality improvement programmes among departments, and increase the efficiency of hospital management. It is therefore anticipated that the nursing care plan can foster satisfaction for both the nurse and the patient by improving the quality of care.

Several studies have demonstrated patient satisfaction due to improved care plans, such as a study conducted by Hall (2009:4) which focused on the development and utilisation of care plans for type two diabetes patients. It was continuously emphasised that patients should be included in the treatment planning process of their condition. It was important to ask for the patient's input when identifying their problems, establishing outcomes, and in formulating the interventions. The diabetic patients involved in this study, demonstrated a sense of comfort and were free to call the nurses whenever a need arose, because they were involved in deciding and agreeing on the treatment plan for their own condition.

- **Implementation**

Implementation is the step of the nursing process where planned nursing care is actually delivered to the patient (Kozier et al 2008:233). It is the fourth step of the nursing process, and it refers to the prioritisation of nursing actions or interventions to be performed to accomplish a specific goal (Smith, Duell & Martin 2004:23). This phase describes the action component of the nursing process and it involves initiation of the identified care and treatment actions based on the assessment, diagnosis and identified problems. It links the medical and nursing treatment plan.

In the course of implementation the nursing interventions may be direct or indirect. Direct care interventions involve a direct interaction between the nurse and the patient, such as repositioning the patient. Indirect care intervention occur when the nurse delegates care to another person such as to a nurse assistant or consults with others such as a dietician.

Successful implementation requires nurses to have cognitive, interpersonal, and technical skills. In practice these skills are used in combination, depending on the required activity. Like the other steps of the nursing process, the implementation phase consists of activities such as validating the care plan, writing the care plan, giving and documenting nursing care, and continuing to collect data in relation to the patient's condition.

- **Evaluation**

To evaluate is to judge or to appraise (Kozier et al 2008:235). Evaluation is the final phase of the nursing process and it involves examination of the outcome of the nursing actions or the extent to which the expected outcomes or goals were achieved (Smith et al 2004:24). Evaluation is a continuous process throughout, while care is being given and it is based on the previous steps of the nursing process.

The purpose of evaluation is to determine whether the patient centered goals were met, it is primarily directed at evaluating the outcomes of care, and not the plan of care or the care delivered. Evaluation is an important aspect of the nursing process because conclusions drawn will determine if the nursing interventions should be terminated, continued, or changed, it is a continuous process (Kozier et al 2008:235). Evaluation at any setting whether it is in the hospital or during home care enables the nurse to make modifications and appropriate interventions.

Successful evaluation builds on the effectiveness of the previous steps. Evaluation usually overlaps with assessment, and if the assessment was accurate the desired outcomes are easily measured. Evaluation normally continues until the patient achieves the required health status or is discharged.

2.4 NURSING DOCUMENTATION

Nursing documentation in health facilities can be used to demonstrate compliance with quality standards (Johnson, Jefferies & Langdon 2010:832).

2.4.1 Definition

Documentation is the written and legal recording of interventions that concerns the patient, and it includes the sequence of processes (Mallik et al 2004:18). Documentation is a critical aspect of professional practice. It is one of the tools that are needed to support the continuous and efficient shared understanding of a patient's history, which simultaneously aids sound interdisciplinary communication and decision-making about the future care of the patient.

Effective nursing care depends on access to high quality information obtained from data collected by means of patient assessment, identification of patients' problems, plan of care, interventions, and evaluation of the outcome criteria. Advantages of good documentation are that it facilitates accurate structured information, and more focused communication between care givers (Bjoverl et al 2000; Ammenworth et al 2003 cited in Saranto & Kinnunen 2009:465). Another important aspect of nursing documentation is that it defines the nature of the nursing itself by documenting the outcome of patient care (Jefferies et al 2010:112). Nursing documentation is a repository of knowledge about the patient, and it is also verifiable evidence demonstrating how decisions were made and records the results of those decisions.

2.4.2 Types and format of nursing documentation

The action of documentation requires skills and knowledge as information is recorded in line with the steps of the nursing process of assessment, planning, implementation and evaluation.

There are several tools and formats for patient documentation. At the College of Registered Nurses of British Columbia (2010:6), these include:

- Worksheets and kardexes. Worksheets are used to organise care which has been provided and to manage time and multiple priorities. Kardexes are used to communicate current orders, upcoming tests or surgeries, special diets, or the use of aids for independent living.
- Patient care plans. Care plans outline the care for individual patients and form part of the patient's permanent health care record. They are usually written in ink, should be up to date, and clearly identify the needs and wishes of the patient.
- Flow sheets and checklists. These are used to document routine care and observation which are recorded on a regular basis, such as activities of daily living, vital signs, and intake and output charts.
- Care maps and clinical pathways. These outline what care will be provided and what outcomes are expected over a specified period of time for a patient within a certain type or group.
- Monitoring strips. These provide important assessment data and are included as part of permanent patient data. These are cardiac, fetal or thermal monitoring and blood pressure testing.

2.4.3 Legal requirements

Documentation of patient care is a legal requirement. The patient's record is a legal document and it is usually required in courts as evidence in case of litigation (Kozier et al 2008:247). In a few situations, the record is not required if the patient rejects such a request, and if the information being requested is confidential. The Tanzanian Nursing and Midwifery Practice Model (United Republic of Tanzania. Ministry of Health 2008) stress the importance of complete nursing documentation. This view is congruent with the American Hospital Association Patient's Bill of Rights number six which states that: "the patient has the right to expect all communications and records pertaining to his or her care to be treated as confidential by the hospital" (Bandman & Bandman 1995:322). The patient has the right to expect that the hospital will emphasise the confidentiality of their information when it is released to any other party for review.

Accurate documentation of correct information is important in patients' records because it can be required in the future. In most instances, patients require more follow-up for their diseases. If the patient documentation is well kept, information can be retrieved in the form of different reports and statistics. This promotes continuity of care, effective

decision-making and reduces unnecessary repetition of detailed past history and some tests.

Education about nursing documentation can result in a significant improvement in this activity. A study conducted by Friberg et al (2006) cited in Saranto and Kinnunen (2009:473) indicated that education about documentation strengthens the skills of nurses and nursing students which in turn, advances the quality of care. In contrast, inaccurate documentation could lead to a variety of problems. A study conducted by Votilainen et al (2004) cited in Saranto and Kinnunen (2009:473) states that inadequate and inaccurate nursing documentation presents a risk to patient safety and well-being and to the continuity of care.

Written communication provides a much wider platform for the storage of knowledge and it should be written in ink (Jefferies et al 2010:113). Nursing documentation should be clear, precise and specific. An incorrect entry should be cancelled by drawing a straight line across the incorrect entry. Ordering of scheduled drugs from the pharmacy, should be written using a red pen. Signatures in nursing reports and documentations should clearly identify the person and the names should be legible.

Documentation requires standardisation of terminology. A study conducted by Saranto and Kinnunen (2009:465) indicated that standardised terminology, classification and codes are crucial to the effective use of a patient record system and structured communication among professionals and patients. It should also be noted that patient records, nursing notes and nursing care plans are confidential documents. They should be given special consideration by keeping these documents in a locked cabinet or fully supervised area where they are only accessible to relevant and authorised personnel.

2.4.4 The nursing practice and record-keeping

A record of practice is an account in permanent form, especially in writing, preserving knowledge or information (Collins 1990:711). Nursing practice is structured by a number of texts such as procedure manuals, nursing policy documents, diagrams of techniques, and even the nursing process itself which is a scientific process of attending to patients' health needs (Mallik et al 2004:14).

Record-keeping is a critical part of medical care. Clinical note taking and record-keeping play an important role for all health care professionals including nurses and this has been emphasised in a public inquiry into health services Mallik et al (2004:15). Nurses carry a significant responsibility in both managing and implementing the interdisciplinary team's plan for the patient, as well as documenting the care and progress towards achieving the expected goals.

Nursing documentation covers a wide variety of issues, topics and systems. Researchers, practitioners and hospital administrators view record-keeping as an important element leading to the continuity of care, safety, quality of care and compliance. However, studies have revealed little evidence of the linkage between record-keeping and those outcomes. Berg (1996) cited in Mallik et al (2004:15) demonstrates that the record is not just an auxiliary feature of a clinic but that it is a material form of semi public memory reducing medical personnel's burden of organising and keeping track of the work to be done, and its outcomes.

The literature also reveals the tension surrounding nursing documentation. Issues include the amount of time spent on documenting, the number of errors in the records, the need for legal accountability, the desire to make nursing work visible, and the necessity of making nursing notes understandable to other disciplines (Hughes 2008:1). Nurses may face dilemmas in documentation. A study conducted by Currell and Urquhart (2004) cited in Hughes (2008:2) concluded that nurses experience tension between patient care needs and the obligation to document actions because of time consumption. However, a study conducted by Langowsk (2004) cited in Hughes (2008:2) found that the quality of documentation is improved with online electronic health care records which relieves the tension of documenting all actions and treatment.

2.5 IMPROVING NURSING CARE

Improving care or managed care is defined as patients receiving the right care, by the right provider, in the right amount, at the right time, in the right place (Murray & Atkinson 2000:10). Nurses have various important responsibilities. These include ensuring that patients are comfortable and that they receive the correct preparation for tests, diagnostic procedures, in the appropriate sequence, and that treatment is given as ordered, or discontinued if not needed.

2.5.1 Differentiating between nursing care and caring

Two aspects of care are at stake when patient care is considered. The first being the actions and responsibilities of providing nursing care to the patient in the process of treating and nurturing the patient, and the second is the way we care for the patient as a person. Therefore the need to clarify these concepts.

- **Defining nursing care/patient care**

Care, in view of patient care or nursing care, is at the core of nursing practice (Walsh 2002:7), and it comprises the services rendered by health professionals for the benefit of the patient (Keane 2003:296).

Caring and effective communication are essential elements of an optimal nurse patient relationship and leader manager role (Kozier et al 2008:442). Among the attributes of nursing are the expression of caring communication, and recognising and interpreting gestures and other kinds of body language or non-verbal communication. These often convey a more powerful and accurate message than mere words.

Nursing is recognised as a profession with a unique perspective on people, the environment and health (Walsh 2002:7). Furthermore, nursing care is based on the individual needs of each patient planned with the involvement of the patient and then evaluated. According to Meleis (2007:457), nursing requires knowledge, skills, and applied knowledge. Applied knowledge provides guidelines to maintain and develop changes, and to advocate and clarify issues related to care.

According to Kozier et al (2008:1553), nursing is influenced by the nurses' attributes, and characteristics, and actions of the nurse providing care on behalf of, or in conjunction with, the patient or client. Iyer et al (1995:4) define nursing as the diagnosis and treatment of human responses to actual or potential health problems. Furthermore, nursing care is the use of clinical judgment in the provision of care to enable people to improve, maintain, or recover health, to cope with health problems and to achieve the best quality of life, whatever their diseases or disability, until death. The terms 'nursing', 'nursing care' and 'care' are used interchangeably in the literature and clinical practice.

- **Defining caring**

Caring is defined as the “intentional action that conveys physical and emotional security and genuine connectedness with another person or a group of people” (Kozier et al 2008:1536).

Caring has always been considered a natural and integral aspect of nursing, and it is the core and essence of nursing (Chen & Chou 2010:86). Caring as the central concept in nursing has led to the development of several caring theories. Among them is the theory developed by Leninger in the 1970s, the theory of Cultural Care, and Jean Watson’s theory of Human Caring (McCance, McKenna & Boore 1999 cited in Vance 2010:1).

According to Vance (/2010:1), caring is a science that has humanitarian aspects, and a human science orientation, encompassing human science processes, phenomena and experiences. Recently, caring science has evolved as a field that is grounded in the field of nursing science.

Watson (1996) cited in George (2002:408) advanced a conceptual model known as the Transpersonal Caring Relationship which is defined as human to human connectedness. Transpersonal caring is an aspect of care which is of major value. This relationship relates to the manner in which the nurse interacts with the patient whereby each one of them is touched by the human centre of the other (George 2002:409).

The concept of a ‘transpersonal caring relationship’ describes the relationship occurring within a caring consciousness. In this scenario the nurse enters into the life space or phenomenal field of another person and is able to detect the patient’s condition of being at a spiritual or soul level, feels the condition within self, responds in such a way that the person being cared for has a release of feelings, thoughts and tension (Watson 1996:152 cited in George 2002:409). The aspect of human to human connectedness has an important value in caring and ten curative factors have been identified as guidelines for nurses to improve patient care. These factors involve:

- Enabling and sustaining faith and hope
- Being sensitive to self and others

- Developing a helping trusting caring relationship
- Promoting teaching
- Promoting and accepting the expression of positive and negative feelings and emotions
- Engaging in creative individualised, problem-solving caring processes
- Promoting learning
- Attending to supportive, protective and corrective mental, physical, societal, and spiritual environments
- Assisting with gratification of basic human needs while persevering human dignity and wholeness
- Allowing for and being open to existential phenomenological and spiritual dimensions of caring and healing that cannot fully be explained

These factors have been viewed as instrumental in creating a sense of harmony and dignity to the patient, and hence improving the nursing care of patients as individuals.

In understanding the concept of caring, it is necessary to comprehend the value of empathy, respect and compassion in truly caring for another person.

Empathy is emotional engagement of the nurse with the patient (Edelman & Mandle 2006:82). Furthermore, it is the ability to view a person's situation from another person's perspective. Empathy enhances trust and understanding between the patient and the nurse and it fosters a sense of security and reassurance (Edelman & Mandle 2006:8).

According to Collins (1990:727), respect is an attribute of deference, admiration or esteem, leading to a state of being honoured. Nurses are unique mediators between patients, doctors, and families therefore the principal of respect for a person among them is important (Searle & Pera 1998:136).

Compassion is a caring behaviour in nursing practice and it applies to all conditions of being human (Searle & Pera 1998:136). Compassion is not acquired by skills and techniques. It is a character or trait which defines a person. It is a sense of kindness in which the nurse will to do what the patient requires at any time.

Therefore in order to provide quality nursing care the nurse must not only have knowledge and technical skills and attitude, but must have a caring demeanour towards patients.

2.5.2 Standards of nursing care

The standard of nursing care is a measure that defines the expected and appropriate actions that should occur (Iyer et al 1995:328). According to Garner (2009) cited in Cartwright-Vanzant (2011:8), standards of care in the law of negligence, is the degree of care that a person should exercise, and Shandall et al (2007) cited in Cartwright-Vanzant (2011:8) argue that a standard of care refers to the rule against which the conduct of a health care provider such as a physician or nurse is measured.

According to Cartwright-Vanzant (2011:8), standards can be developed by both governmental and non-governmental committees and after public review, the recommendations become standards. Nursing standards are not laws, however, they help to prevent everyone from practicing differently and may reduce nursing negligence (Cartwight-Vanzant 2011:9).

2.5.2.1 Standards and criteria

It must be noted that the concepts of goals, aims, objectives, standards and criteria are defined and explained differently by the various sources. For the purpose of this study, standards are considered the broad goals from which several criteria are developed to asses whether the standard has been achieved. Criteria can be compared to objectives which are derived from broader goals.

- **Standards defined**

Standards are defined as “written statements of professionally agreed, evidence-based levels of performance and service delivery” (Patel 2010:30). Standards are the foundation of quality assurance programmes and are often written and kept neatly in a file as they are used to determine what the nurse should do, to reach the expected outcomes. All standards of practice or care provide a guide to the knowledge, skills, judgment and attitudes that are needed in practice. The standards are based on the

premise that the registered nurse is responsible for, and accountable to the individual patient for the quality of nursing care rendered. Standards of care provide a means of determining the quality of care which the patient receives regardless of whether the intervention has been provided by the registered nurse or other persons (Cherry & Jacob 2005:479).

Standards of care are considered to be the baseline for quality nursing care. These are used by the registered nurse practicing in any setting, and are governed by the practice of the licensee at all the levels of practice. The standards of care expected can be formulated in nursing guidelines or protocols. These guidelines can be nursing actions that relate to specific diagnoses (Smith et al 2004:35).

Nursing standards can be formulated to contain the list of usual nursing actions or interventions and the expected outcomes for each problem. The standards of care are controlled by the Nursing Council under the Nurse Practice Act. Nurse Practice Acts or legal acts for professional practice regulate the practice of nursing (Kozier, Berman & Synder 2012:8). Although nurse practice acts differ in various jurisdictions, they all have a common purpose which is to protect the public (Kozier et al 2012:8). The Nurse Practice Act of USA (1997) define professional nursing and recommends the actions the nurse can practice independently, interdependently and those which require physician order before completion (Smith et al 2004:4). In Tanzania, the Nursing and Midwifery Act No 2 (2010) has a series of statuettes enacted to regulate the practice of nursing (United Republic of Tanzania. Ministry of Health 2010). The standard of care describes the competent level of professional care and the required professional performance common to all nurses engaged in clinical practice. The National recommended standards of nursing practice in Tanzania are published in two sections. According to Act Supplement No 2, these are:

- The standards of care which describe the components of the nursing process; assessment, nursing diagnosis, planning, implementation, and evaluation.
- The standards of professional performance: quality of care, performance appraisal, evaluation, collegiality, ethics, collaboration, research and resource utilisation.

Nursing care plans are an effective tool for standardising patient care. There are two types of patient care plans. **Individualised care plans,** which are formulated by the nurse and the patient, and **Standard care plans** for a specific condition such as diabetes mellitus and hypertension, which are pre-printed standard care plans developed for the most common diseases or conditions. They contain a list of the usual nursing actions or interventions and the expected standard outcomes of each problem. The standard care plans can be individualised to meet the needs of each patient.

- **Criteria defined**

According to the *Collins Paperback English Dictionary* (Collins 1990:200), a **criterion** is a standard by which something can be judged or decided. In practice, a standard stipulates in broad terms what should be accomplished, whereas, criteria derived from the standard, specifically indicates how actions should be performed to meet the standard. This is confirmed by Booyens (1998:607) who state that "once standards have been set, it is necessary to determine how judgments are to be made as to whether they have been met. Judgments are based on predetermined criteria. Thus, standard formulation not only involves setting the standards themselves, but also establishing the criteria which will apply to ascertain whether or not a standard has been met."

Criteria should be concrete and specific, and serve as guideline for the collection and evaluation of data. Characteristics of sound criteria are easily remembered by the acronym SMART:

- S: Specific
- M: Measurable
- A: Applicable
- R: Realistic
- T: Time related

Learnmarketing (http://www.learnmarketing.net/smart.htm accessed on 20/02/2012) provide the following diagram and table to explain the characteristics of a criterion (which is similar to an objective) (SMART objectives [S.a.]).

Figure 2.3 illustrates the five characteristics which objectives and criteria have to adhere to, in order to be effectively applied in meeting the set goal or standard.

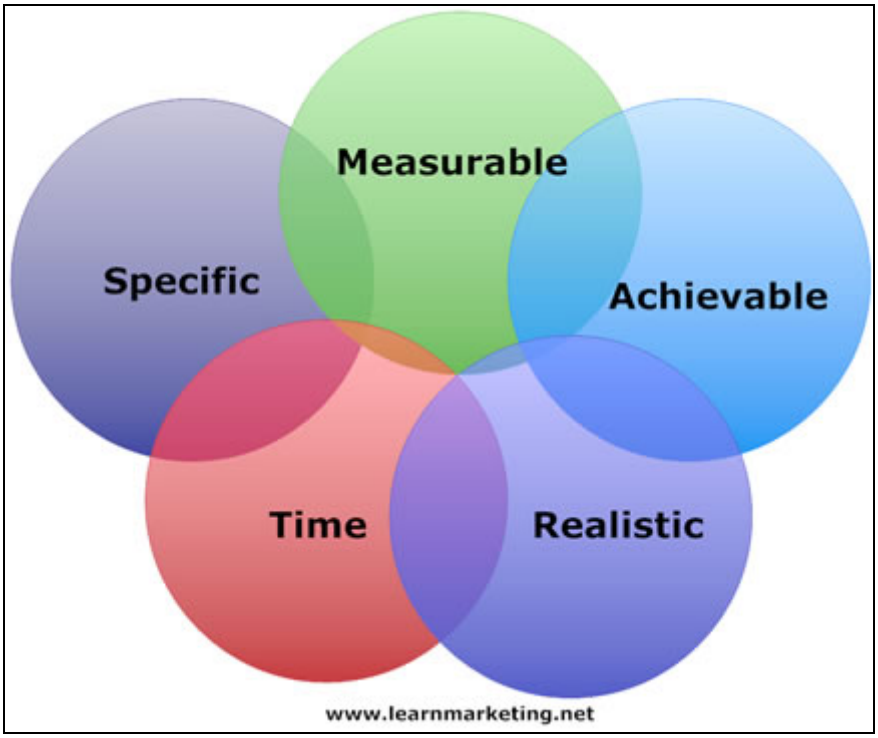

Figure 2.3 SMART objective/criterion
(SMART objectives [S.a.])

In table 2.3 the five characteristics are explained and a business example is given to illustrate the application of each characteristic.

Table 2.3 Example of SMART objectives/criteria

SMART meaning	Examples
Specific – Objectives should specify what they want to achieve.	For example a soft drinks company may want to achieve 3% market share in 12 months.
Measurable – You should be able to measure whether you are meeting the objectives or not.	A 3% market share over 12 months means that each month market share targets can be measured against a specific goal.
Achievable – Are the objectives you set, achievable and attainable?	Is the 3% objective for the 12 months achievable? Does the company have the resources, man power and finances to achieve it?
Realistic – Can you realistically achieve the objectives with the resources you have?	Is the 3% objective over a 12 month period realistic or does the company need longer? Does the company have the skills and resources to achieve this over the time period set.
Time – When do you want to achieve the set objectives?	In our example the company has set themselves a period of 12 months to achieve the 3% market share target.

According to Stuart (2005:206), some of the criterions which could be used to improve the care of patients could be:

- Ethos whereby channels of communication and staff attitude could be observed.
- Organisation of care, which takes into consideration philosophy and approach to care.
- Organisation of workload so as to improve continuity and team nursing.
- Supervision, effectiveness of supervision and fulfillment of contact hours.
- Research, evidence-based care.

2.5.2.2 Types of standards

Nursing quality can be evaluated in terms of structure, process, and outcome (Donabedian 1982 cited in Wu & Lee 2006:182). The following are the three types of standards which encompasses all the facts required to provide quality patient care.

- **Structure standards**

Agencies, organisations and institutions have a vision, values, philosophy, and goals which serve to define the structural standards. Structural components are the physical facility, human resources, equipment and supplies, and policy and procedures. In the United States of America standards of structure are defined by the licensing or accrediting agency and the evaluator determines whether the agency is adhering to the stated philosophy and goals, its vision and stated values (Stanhope & Lancaster 2004:532). Standards and criteria for quality assurance begin with writing the philosophy and the goals of the organisation. The goals should define the intended results of nursing care, description of patients' behaviour, and/or change in health status to be demonstrated on discharge (Stanhope & Lancaster 2004:532).

- **Process standards**

Process standards relate to the quality of care and activities being given by agency providers such as nurses (Stanhope & Lancaster 2004:533). A variety of methods could be used to determine criteria for evaluating the activities of the service provider such as

conceptual models. Areas included in process standards are professional standards application, nursing process application, nursing care procedures, outcome, and personnel performance evaluation (Stanhope & Lancaster 2004:533).

- **Outcome standards**

Outcome standards are the evaluation of results of nursing care (Stanhope & Lancaster 2004:533). These include identifying changes in the patient's health status which has resulted from the nursing care provided. Other areas include patient disposition, personnel/patients safety, patient/personnel satisfaction, malpractice suits, documentation of care, effectiveness, and efficiency of services (Stanhope & Lancaster 2004:533).

The three types of standards for quality nursing care, which are structure, process, and outcome standards play an important role in facilitating the implementation of the nursing process which entails the activities of assessment, nursing diagnosis, planning, implementation and evaluation. Despite the theoretical setting of standards, aspects in the practical field may hinder the appropriate provision of care. These are outlined in table 2.4.

Table 2.4 Hindrances to the realisation of standards

Structural issues	**Problems**	**Result**
Objectives	Unclear definition	Poor nursing care
Equipment and supplies	Insufficient and non functional	Lack of quality assurance
Policy and procedures	Lack of policies and procedures	Lack of quality assurance
Human resources	Insufficient number and lack of qualifications	Poor nursing care
Process issues	**Problems**	**Result**
Professional standards application	Undefined professional standard	Poor nursing care
Nursing process application	Inappropriate, incomplete and timely care	Poor nursing care and patient dissatisfaction
Nursing care procedures	Lack of clear procedures	Lack of quality assurance
Outcome issues	**Problems**	**Results**
Documentation of care	Lack of documentation	Lack of quality assurance and follow up
Change of patient health status	Development of hospital infection	Poor quality of nursing care

(Kozier et al 2008:239)

2.5.2.3 Monitoring and evaluation

The setting of standards and criteria in itself, is not sufficient to ensure the provision of quality nursing care. The achievement of criteria and the subsequent standards need to be continuously monitored and evaluated to ensure meeting the projected outcomes.

To **monitor** is to constantly check a given condition or phenomenon (Keane 2003:1139). **Evaluation** refers to a critical appraisal or assessment, a judgment of value, worth, character or effectiveness of something, or measurement of progress (Keane 2003:623). Although the tools for monitoring and evaluation are used together, in principal they are tools which are different in nature, and they are used at different stages of the process.

A **monitoring system** can be defined as an observation system for project managers to verify whether the project activities are happening according to plan and whether means are used in a correct and efficient manner to accomplish the goal. In hospitals and other health facilities, registered nurses are required to establish monitoring mechanisms to ensure that the planned patient care has been given accordingly.

Evaluation is the assessment of actions and processes to determine whether they have contributed to, or have met the goal/standard planned for. It assesses the patients' progress towards accomplishing established goals and outcomes as well as evaluating the components of the patient management process (Cherry & Jacob 2005:459). Evaluation is an essential part of professional accountability and nurses and other health care providers work together as a multidisciplinary team focusing on improving patient care (Kozier et al 2008:239).

2.5.2.4 Ways to improve patient care

Patient care could also be improved through standardised processes known as 'best known methods or best practices' (Cherry & Jacob 2005:479). According to Cherry and Jacob (2005:481), the best methods for standardising nursing care in health care settings are; clinical guidelines or critical pathways, case management, and clinical protocols or algorithms.

- **Clinical guidelines**

A clinical guideline or critical pathway defines the optimal sequence and time of interventions by the physician, nurses or other health practitioners (Cherry & Jacob 2005:481). Clinical guidelines are developed through collaboration among the health care team members and the benefits include:

- Reduction in variation of the care provided
- Facilitation and achievement of expected clinical outcomes
- Reduction in care delays and ultimate length of stay in the patient setting
- Improvement in the cost effectiveness of the care, and increasing patient and family satisfaction

- **Clinical protocols**

Clinical protocols are tools which may be used to standardise clinical practice (Cherry & Jacob 2005:482). They might be used to provide a decision path which a practitioner may take during an episode of need. They could be used in the treatment of hypertension, provision of both basic and advanced life support, and in general diagnostic screening.

- **Case management**

Case management is another method of improving patient care whereby the nurse case manager coordinates the patient care throughout the course of the patient's stay in the hospital. It has also been defined as a "dynamic, systematic and collaborative approach used to provide and coordinate health care services to a defined population" (Cherry & Jacob 2005:457). Case management is both clinically and business oriented, aiming at achieving specified patient outcomes. Case management has five major components: assessment, planning, implementation, evaluation and interaction. It therefore has all features of the nursing process.

- **Record-keeping**

A record is a written communication which provides formal, legal documentation of a patient's progress (Kozier et al 2008:1558). Patient records serve multiple purposes such as to meet legal requirements, accreditation, accountability, and financial billing (Hughes 2008:2). Patient records are valuable instruments for enhancing patient related communication and the planning of patient care.

In the case of **communication** the patient records serve as a vehicle for use by different health professionals who interact with and about the patient. Through records, discussions can take place and fragmentation of care can be avoided.

In the case of **planning patient care** the health professionals use patient data to plan care. Care providers can decide to alter treatment after noticing changes on the patient's observation charts.

- **Audits**

The audit is a major tool used to evaluate quality of care and it is defined as a rigorous procedure for measuring and improving the quality of care or clinical outcomes against an agreed standard at local or national level (Gerrish & Lacey 2010:528). According to Stuart (2003:206), it is widely accepted that quality of health care provision can be achieved and maintained through the use of audits. Furthermore, the outcome of audits and monitoring are the dissemination of good practice results for joint action planning between the different providers. Clinical audits, practice development and service evaluation are primarily concerned with generating information that can inform local decision-making (Gerrish & Lacey 2010:6). There are two types of audits namely; concurrent and retrospective.

The **concurrent audit** is a process audit which evaluates the quality of care by looking at the nursing process (Stanhope & Lancaster 2004:527). Concurrent audits are conducted at the time the care is being provided to the patient or clients by means of observation, interview of the patient or the client, review of the open charts or in conference with groups of consumers and providers of nursing care. This allows for correction of any identified problem.

A **retrospective audit** is the evaluation of the patients' records after being discharged from the hospital (Kozier et al 2008:240). The procedure includes studying the patients' closed charts and the nursing care plans, questionnaires, interviews and survey of patients and families.

- *Audit committee*

The audit committee consists of a group of people, staff or peer reviewers with specific goals for achieving quality assurance (Stanhope & Lancaster 2004:527). The goals of an audit committee pertain to identifying problems between the provider and patient, to intervene in areas where problems have been identified, to provide feedback regarding interactions between patients and providers, and to provide documentation of interactions between patient and provider (Stanhope & Lancaster 2004:527).

Nursing audits are conducted to ensure that patients are given safe, reliable and dignified care, in order to direct them to recovery (Patel 2010:28). Audits of services are needed to ensure coordination of services and treatments that are 'fit for purpose', and that staff adhere to professional standards.

- **Research**

Research and surveys focuses on obtaining information that could improving patient care (Polit & Hungler 1999:716). The information contained in the patient's records can be a valuable source of data for conducting research. Research findings can be applied to alter patient management, and facilitate the care and treatment of patients with difficult health conditions.

- **Institutional strategies**

For the improvement of health service delivery, quality is a central issue in all institutions. According to the Tanzania Quality Improvement Framework for health care, Quality means, "Performance according to standards" or doing the right thing, the right way at the right time (United Republic of Tanzania. Ministry of Health 2011:1). Both consumers and service providers have a vested interest in the quality of health care

systems (Stanhope & Lancaster 2004:517). To achieve quality different approaches could be followed by the institution such as quality improvement and quality assurance teams.

- *Quality improvement*

These are efforts of evaluating and improving the quality of health care based on internal assessment by health care providers so that medical and nursing errors are minimised or prevented (Kozier et al 2008:239). Quality improvement in institutions is the ability of health providers to provide care that will address the patients' needs in effective, responsive and respectful manner on a continuous basis (United Republic of Tanzania Ministry of Health 2011:1). The aim of quality improvement is to identify, implement and maintain best clinical and organisation practices which will ensure better care for patients in order to achieve positive health care outcomes. Different approaches could be used in view of quality improvement to address the care of patients such as:

- Conducting small scale research studies on patient safety and health care quality measurement, reporting and improvement.
- Developing and disseminating reports and information on patient care quality measurement, reporting and progress.
- Collaborating with management and other stakeholders to implement evidence-based practices.
- Assessing own practices to ensure continuous learning and improvement.

- *Quality assurance*

A quality assurance programme is an ongoing systematic process designed to evaluate and promote excellence in the care which has been provided to patients (Kozier et al 2008:239). According to Stuart (2003:206), quality assurance can be viewed as comprising all the activities in an organisation which help to identify and promote good practices and prevent poor practices. Quality assurance guarantees that certain standards of excellence are being met in the delivery of patient care (Stanhope & Lancaster 2004:519). Quality assurance focuses on three areas which ar**e** to set standards of care, to evaluate care provided on the basis of the standards, and to take

action which will bring changes when care does not meet the standards. Nursing tools such as nursing care plans and check lists can provide evidence for nursing auditing procedures as a means of quality assurance.

2.6 SUMMARY

The literature review involved consideration of relevant information about improving the quality of patient care by using the nursing process. The nursing process, nursing care plans and the role of the nurse were discussed in detail. The steps of the nursing process were narrated. The importance of nursing documentation was noted. Mechanisms for improving patient care and appropriate standards of care including auditing systems were elaborated on.

In the next chapter the research methodology will be discussed.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes the quantitative methods which were adopted for this study, as well as the data collection and analysis methods. As described in chapter 1 the purpose of the study was to determine to what extent the nursing process and nursing care plans could improve the quality of nursing care in a referral hospital, and subsequently to develop an in-service training programme for enhancing the application and utilisation of the nursing process and nursing care plans.

The study objectives were to:

- Ascertain the nursing staff's understanding of the benefits and value of implementing the nursing process.
- Determine to what extent the registered nurses are able to develop and implement nursing care plans.
- Determine the registered nurses' understanding of, and views about nursing care documentation
- Develop an in-service training programme for nurses on the implementation of the nursing process and nursing care plans.

3.2 RESEARCH DESIGN

Research design is the overall plan for addressing a research question, including specifications for enhancing the study's integrity (Polit & Beck 2008:765).

In this study quantitative methods were used to gather information about the nurses' knowledge of the nursing process, nursing care plans and documentation, based on an exploratory, descriptive, and contextual design. The focus of the study was to explore

what the nurses' understanding is of the nursing process and its application, by requesting them to provide the necessary information in a survey.

3.2.1 Quantitative methods

Quantitative research is the investigation of phenomena that lend themselves to precise measurement and quantification, often involving a rigorous and controlled design (Polit & Beck 2008:763). Quantitative research usually uses traditional methods whereby a general set of orderly, disciplined procedures are used to test the phenomenon under consideration. In this case, the knowledge, skills and practice in utilising the nursing process and the nursing care plans are being explored.

Tools for quantitative research, involves the use of data collection methods such as questionnaires, structured interview, and structured observations (Parahoo 2006:49). Methods of data collection such as the questionnaire or the interviews do not belong exclusively to particular paradigms, selection could be done. The choice could reflect the particular belief and value of the researcher in relation to the phenomena of investigation (Parahoo 2006:49).

3.2.2 Exploratory design

Exploratory design refers to the explanation of the full nature of phenomena, the manner in which it is manifested and the other factors to which it is related (Polit & Beck 2008:20). Exploratory design is conducted to explore a topic or to provide a basic familiarity with that topic (Mouton 2006:79). With this method the nurses' knowledge on utilising the nursing process will be explored. Another key issue in exploratory design is to take a look at something which has not been investigated before. Utilisation of the nursing process and nursing care plan has not been investigated at this referral hospital before. Among the reasons for adopting on exploratory design is to satisfy the researcher's curiosity and desire for better understanding, and to test the feasibility of undertaking a more extensive study (Mouton 2006:80).

3.2.3 Descriptive design

The descriptive design was aimed at observing, describing, and documenting aspects of a situation as it occurs naturally, and sometimes to serve as a starting point for hypothesis generation or theory development. It tends to answer questions such as “what?”, “why?”, “when?” and “how?” (Parahoo 2006:184). This design is appropriate for this study as it involves a description of the current situation of nursing knowledge and practice at a referral hospital in Tanzania.

3.2.4 Contextual design

Contextual design describes the events within a concrete, natural context in which they occur (Mouton 2006:272). In this study the context is the clinical setting in a referral hospital. In particular the nurses working in this hospital will be approached to provide information regarding their understanding of the nursing process and patient care planning, which should be evidenced in the patient care documentation.

3.3 METHODOLOGY

The design of a study is the end result of a series of decisions made by the researcher concerning how the study will be implemented (Burns & Grove 2005:211) and this is called methodology. It refers to the practices and techniques which will be used to, identify the population, determine sample size, methods of sampling, and the means of collecting, processing and analysing data (Bowling 2005:143). The following are the methods which were used for this study:

3.3.1 Population

The population of a study is the group of subjects, usually of people, about whom we want to draw conclusions (Mouton 2006:100). Population could also be defined as all the elements (individuals, objects, or substances) that meet certain criteria for inclusion in a given universe (Kaplan 1961; Krelinger & Lee 2000 cited in Burns & Grove 2005:40).

3.3.1.1 Target population

In this study the population refers to all the registered nurses with work experience, of three years and longer, within the selected hospital.

The registered nurses have acquired a Diploma, or Advanced Diploma in Nursing, or a Degree in Nursing. The Diploma registered nurses have undergone a four year integrated nursing course whereby they were exposed to all the nursing fields of medical and surgical nursing, pediatric nursing, midwifery, leadership and research. The Advanced Diploma registered nurses have undergone the four year diploma plus two additional years for specialty training in either pediatric, ophthalmic, midwifery, or theater nursing. The nurses with a degree have undergone three additional years of study after completing the Diploma or the Advanced Diploma. The total number of nurses who were working in the units which admit patients were 248.

3.3.2 Sampling method

According to Burns and Grove (2005:750), a sample is a subset of the population that is selected for a study, and sampling includes selecting groups of people, events, behaviours or other elements with which to conduct a study.

The participants were to meet the following criteria of inclusion:

- A registered nurse with at least a Diploma or Advanced Diploma.
- Nursing work experience of three years or more at this particular hospital.

Probability sampling is a random sampling technique in which each member (element) in the population should have a greater than zero opportunity to be selected for the sample (Burns & Grove 2005:747). It is also the primary method for selecting large representative samples for social science research (Mouton 2006:166). Random selection is a selection process in which each element of the population has an equal independent chance of being included in the sample (LoBiondo-Wood & Haber 2006:570).

Systematic random sampling was used and the duty roster was the sampling frame. Systematic sampling can be conducted when an ordered list of all members of the population is available thus allowing the selection of every second individual on the list (Burns & Grove 2005:242)

3.3.2.1 Sampling plan

The sampling plan is the formal plan specifying a sampling method, a sample size and procedures for recruiting participants (Polit & Beck 2008:765). According to Burns and Grove (2005:346), a sampling plan describes the strategies that will be used to obtain a sample for a study. The sampling strategy for this study involved listing all the registered nurses from the selected clinical units. According to Mouton (2006:190), in systematic sampling, every second element in the total list is chosen systematically for inclusion in the sample. The duty roster was used to identify these nurses because they are listed according to their seniority. Nurses who were on duty during the sampling period were selected randomly through systematic sampling, whereby every second nurse on the duty roster was selected and requested to participate in the study. There are eight admitting units with more than thirty nurses each. Fifteen nurses were selected randomly from each department making a total of 120 nurses to participate from a total population of 248 nurses, thus almost (48%) representing 50 percent of the population.

3.3.3 Data collection instrument

Data is the information collected by researchers during the course of a study (Parahoo 2006:467), and an instrument is the device that a researcher uses to collect data, such as questionnaires, tests, or observation schedules (Polit & Hungler 1999:704).

The data collection instrument for this study was a structured questionnaire (annexure 5). The questions were structured using the concepts of the nursing process. The structured questions were combined with open questions. The questions were developed to capture the knowledge of nurses in view of the value of the nursing process, its content and implementation, while the open questions provided room for the respondents to provide additional information.

The purpose of using structured questions was to ensure comparability of responses and to facilitate analysis. According to Bowling (2002:308), closed-ended questions with pre-coded responses are preferable for topics about which not much is known. Their advantage is that they are cheaper and quicker to analyse than responses to open questions.

- **Reliability and validity**

Reliability and validity of the instrument are indicators which are used to ensure accurate results. According to Bowling (2002:147), psychometric validation is the process by which an instrument is assessed for reliability and validity through the mounting of a series of defined tests on the population group for whom the instrument is intended. LoBiondo-Wood and Haber (2006:571) define reliability as the consistency or constancy of a measuring instrument, and validity as the determination of whether a measurement instrument actually measures what it is supposed to measure.

- ***Reliability***

LoBiondo-Wood and Haber (2006:571) define reliability as "the consistency and constancy of a measuring instrument. It is the extent to which it yields the same results on repeated measures". Reliability is concerned with consistency, accuracy, precision stability, equivalence and homogeneity. Reliability plays an important role in the selection of a scale for use in a study (Burns & Grove 2005:374). The groups of response alternatives for the different questions were *'agree', 'strongly agree', 'disagree' 'strongly disagree'* and '*always', 'sometimes', 'rarely'* and '*not at all'*.

According to Burns and Grove (2005:374), **stability** deals with the consistency of repeated measures of the same attribute with the use of the same scale. A reliable instrument should therefore give the same results when measuring the same phenomena. **Consistency** in giving the same data over repeated testing indicates reliability of the instrument.

Equivalence in the context of reliability assessment is concerned with the degree to which two or more independent observers or coders agree about the scoring on an instrument (Polit & Beck 2008:455). An instrument is said to exhibit equivalence if the

tool produces the same results when equivalent or parallel instruments or procedures are used.

Homogeneity of an instrument means that all the items in a tool measure the same concept or characteristic. According to Burns and Grove (2005:376), tests of instrument homogeneity are used primarily with paper and pencil tests, to addresses the correlation of various items within the instrument. The variables or the instrument should have similarity.

- ***Validity***

Polit and Hungler (1999:418), Burns and Grove (2005:376) and Polit and Beck (2008:457) describe validity as the degree to which an instrument measures what it is supposed to be measuring. Validity discussed in the literature could be of the following types: content, face, criterion-related, and construct validity. Content and face validity are applicable to this study.

Content validity of an instrument is concerned with whether the major themes of the study that are being measured are included in the instrument. Content validity in this study was ensured through the literature review and by giving the instrument to colleagues to read for appropriateness and accuracy. Face validity is when a particular empirical measure may or may not conform to common agreements concerning a particular concept (Mouton 2006:122). According to Lo-Biondo-Wood and Haber (2006:339), a subtype of content validity is face validity. This is a rudimentary type of validity which verifies that the instrument gives the appearance of measuring the concept. In this aspect the colleagues were asked to read the instrument and evaluate the contents in terms of whether it appears to reflect the concept the researcher intends to measure. This procedure helped to determine readability and clarity of the content.

3.3.3.1 The questionnaire

Data collection from the respondents could be done through various methods. The method chosen for this study was a questionnaire. A questionnaire could be defined as paper and pencil instrument, designed to gather data from individuals (LoBiondo-Wood & Haber 2006:570), or a method of gathering self report information from respondents

through self-administration of questions in a paper and pencil format (Polit & Hungler 1999:712).

The self-administered questionnaire offers a number of advantages although on the other hand there could also be some drawbacks. The advantages are:

- Cost: Questionnaires, relative to interviews, are generally cheaper, and require less time and energy to administer. Furthermore, they could be administered in a group.
- Anonymity: Questionnaires offer the possibility of complete anonymity. As a researcher you do not need to be present when the questionnaires are being completed.
- Bias: Respondents are at liberty to be as objective as possible as they don't have the interference of the interviewer (Polit & Hungler 1999:349).

Despite the advantages the questionnaire could have the following disadvantages:

- Response rate: People may be reluctant to complete the questionnaire and take time to respond.
- Audience: Some people simply cannot fill out a questionnaire due to various reasons such as young children, being blind, elderly or illiterate.
- Order of questions: In an interview the researcher has strict control over the order of presentation of the questions. Questionnaire respondents are at liberty to skip from one section of the instrument to another. In this manner it is possible that a different ordering of questions from the originally intended could bias the responses.
- Sample control: Interviews permit greater control over the sample in the sense that the interviewer will know whether the person being interviewed is the intended respondent. If it occurs that the respondent has passed the instrument to somebody else, then someone else could complete the questions for them (Polit & Hungler 1999:349).

3.3.3.2 Outline of the questionnaire

The questionnaire was designed in line with the key objectives to ensure exhaustive data collection.

The questionnaire was divided into the following sections:

Section A. Requested the participants to give their biographical information which included their age, academic profile and work experience.

Section B. Included questions about the nursing process, testing their knowledge and understanding of this process.

Section C. Included questions on the assessment of patients

Section D. Contained questions on the nursing diagnoses.

Section E. Contained questions on the planning phase.

Section F. Dealt with the implementation of the nursing process.

Section G. Contained questions about evaluation of care plans.

Section H: Contained questions on nursing documentation.

Section I: This section contained a summary question regarding the most difficult activity pertaining to the nursing process in providing patient care.

3.3.4 Pre-testing of the data collection instrument

Pre-testing of the data collection instrument refers to testing the instrument prior to the actual collection of data (Polit & Beck 2008:67). The instrument was given to research assistants to read and to test it. Pre-testing in research serves a number of purposes which will assist the researcher as follows:

- To provide adequacy of study methods and procedures.
- It ensures likely success of participant recruitment.
- It ensures appropriateness and quality of the instrument.
- It strengthens the relationships between the key variables.
- To assist in identification of potential problems such as loss of participants during the course of the study.
- It also gives focus on time to spend in completing the questionnaire and reliability and validity of the questions (Polit & Hungler 1999:320).

In this study a pre-test of the data collection instrument was conducted by submitting the questionnaire to five nurses with an Advanced Diploma in nursing who were not part of the major study. These nurses did not experience any uncertainties in answering the questions. The pre-test was conducted to ensure understanding of the questions. The data participants were not included in the main study to avoid bias.

3.3.5 Data collection

Before data collection could take place, permission was sought from the relevant health authorities to do the study (annexure 1), and a request for ethical clearance was submitted at the same time (annexure 2), both requests were granted (annexures 3 and 4). Data collection is the precise, systematic gathering of information relevant to the research purpose, or the specific objectives, questions or hypothesis of a study (Burns & Grove 2005:733).

The data collection for this study was conducted by research assistants. Four nurses with the Advanced Diploma in Nursing were requested to collect the data. A briefing session about the study was held with the research assistants. The purpose and objectives of the study were explained and the questions were read together for purposes of clarification. Each of them was given thirty questionnaires for distribution, supervision and collection from the participants in each of the selected departments. The respondents were individually approached by the research assistants and the purpose of doing the research was explained to them. The respondents' participation was requested by using the consent form (annexure 6). The respondents were requested to complete the questionnaire at the end of their shift and to retain it for collection by the research assistants.

3.3.6 Data analysis

Data are the pieces of information obtained from the data collection process, and analysis is the systematic organisation and synthesis of research data (Polit & Beck 2008:751). The data was statistically analysed with the assistance of a statistician. Descriptive statistics were presented in tables, histograms and pie charts.

3.3.7 Ethical considerations

Ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal, and social obligations in view of the participants (Polit & Beck 2008:753). The following ethical principles were observed:

- **The right to protection from exploitation**

This means that involvement in a research study should not place participants at a disadvantage or expose them to situations for which they have not been prepared for, or to penalise them (Polit & Beck 2008:171). The nurses were assured that the information provided will be treated confidentially and will not be used to punish them for not fulfilling their duties correctly.

- **The principle of self determination**

The participants have the right to decide voluntarily whether to participate in the study or not, and they also have the right to ask questions, to refuse to give information or to withdraw from the study. The nurses were given the right to decide voluntarily whether to participate or not.

- **The informed consent**

This means that the participants have adequate information regarding the research, are capable of comprehending the information, and have the power of free choice to consent or to decline participation voluntarily (Polit & Hungler 1999:140). Accurate and

sufficient information regarding the purpose of the study was given to the nurses, so that they could make an informed decision to participate or not.

- **The right to anonymity**

The right to anonymity refers to protection of participants' identity to such an extent that even the researcher cannot link individuals with the information provided (Polit & Beck 2008:747). The nurses were assured of the protection of their identity. The questionnaires had code numbers and respondents did not have to write their names on the questionnaires.

- **The right to confidentiality**

Confidentiality demands non-disclosure of private or secret information about another person with which one is entrusted (Burkhardt & Nathaniel 2008:67). The participants were assured that the information provided will be treated confidentially.

3.4 LIMITATIONS OF THE STUDY

The researcher is a leader supervising the nursing services at the hospital where the study was conducted. This could have influenced the responses from the respondents. Therefore the questionnaires were distributed by research assistants.

3.5 SUMMARY

The research methodology for this study encompassed a quantitative approach, with an exploratory, descriptive, and contextual design. The research methodology was outlined and discussed being the population, study sample, and data collection instrument. The main concepts of reliability and validity were discussed. In reliability the areas of stability, consistency, equivalence and homogeneity were discussed. Pre-testing of the data collecting instrument and data analysis were discussed. Issues of ethical considerations were outlined.

In the next chapter, the data analysis and presentation of the research findings will be discussed.

CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

Data analysis is the systematic organisation and synthesis of the research data (Polit & Beck 2008:751) in order to elicit meaning. This chapter aims to analyse, interpret and describe the collected data. The statistical information presented is derived from 120 questionnaires distributed to 120 nurses in a Consultant Referral Hospital. All the questionnaires were completed and returned, giving a response rate of 100 percent.

The completed questionnaires were submitted to a statistician for data processing and analysis. The questionnaire consisted of the following sections: Biographical information, Nursing process, Assessment, Nursing diagnoses, Planning, Implementation, Evaluation, Nursing documentation, and Summary questions.

The results will be discussed in accordance with these sections.

4.2 DATA ANALYSIS

The computer program used for the data analysis was the Statistical Package for the Social Sciences (SPSS). The descriptive data is presented as frequencies and percentages in pie charts, tables and bar charts. Percentages are rounded off to the first decimal point.

The following five response alternatives *strongly agree, agree, uncertain, disagree,* and *strongly disagree* were reduced to three categories namely *agree*, *neutral* and *disagree* in order to facilitate the discussion process. Another set of response alternatives included the following options *always*, *sometimes, rarely* and *not at all*.

4.3 RESULTS

The results are presented based on the data gathered by means of the questionnaire.

4.3.1 Biographical information

The biographical information sought in this section includes variables such as age, current position, period of service, and professional qualifications.

4.3.1.1 Age

It was important to ascertain the age of respondents in order to obtain a broad indication of their years of experience as a nurse. This was important as understanding of the nursing process varies according to level of experience.

Table 4.1 Age distribution of respondents (n=120)

Age	**n**	**%**
20 – 30 years	18	15
31 – 40 years	42	35
41 – 50 years	36	30
51 – 60 years	24	20
TOTAL	120	100

According to table 4.1 the majority of the respondents (n=102) were above 31 years of age (85%), with 18 (15%) being 30 years or younger. It is thus evident that most of these nurses were chronologically mature.

4.3.1.2 Current position

It was essential to establish the positions held by the respondents. This was important because some of the questions focused on leadership. It was therefore necessary to distinguish between the nurses conducting bedside care, and those nurses holding leadership positions in charge of wards or departments.

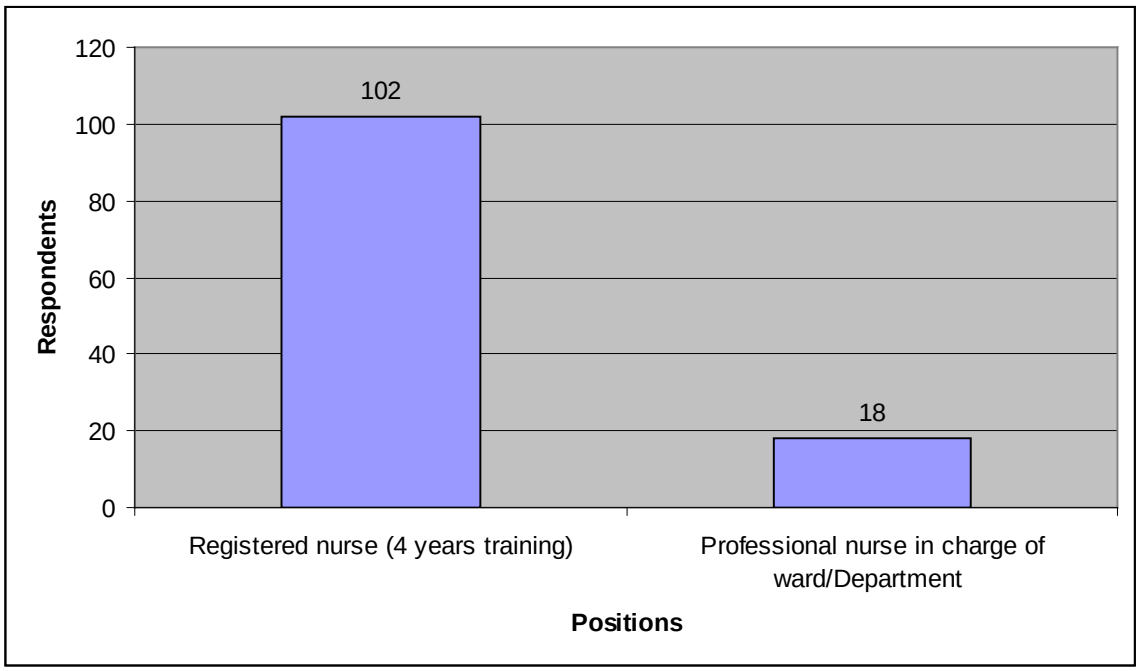

Figure 4.1 Positions held by the respondents (n=120)

Figure 4.1 illustrates that the majority of respondents (n=102; 85%) were employed as registered nurses doing bedside nursing. Only 18 (15%) respondents served in leadership roles in charge of wards or departments. The registered nurses are the key implementers of the nursing process.

4.3.1.3 Period of service in current position

Respondents were requested to indicate the period of service in their current position with the aim of establishing their experience in the provision of patient care.

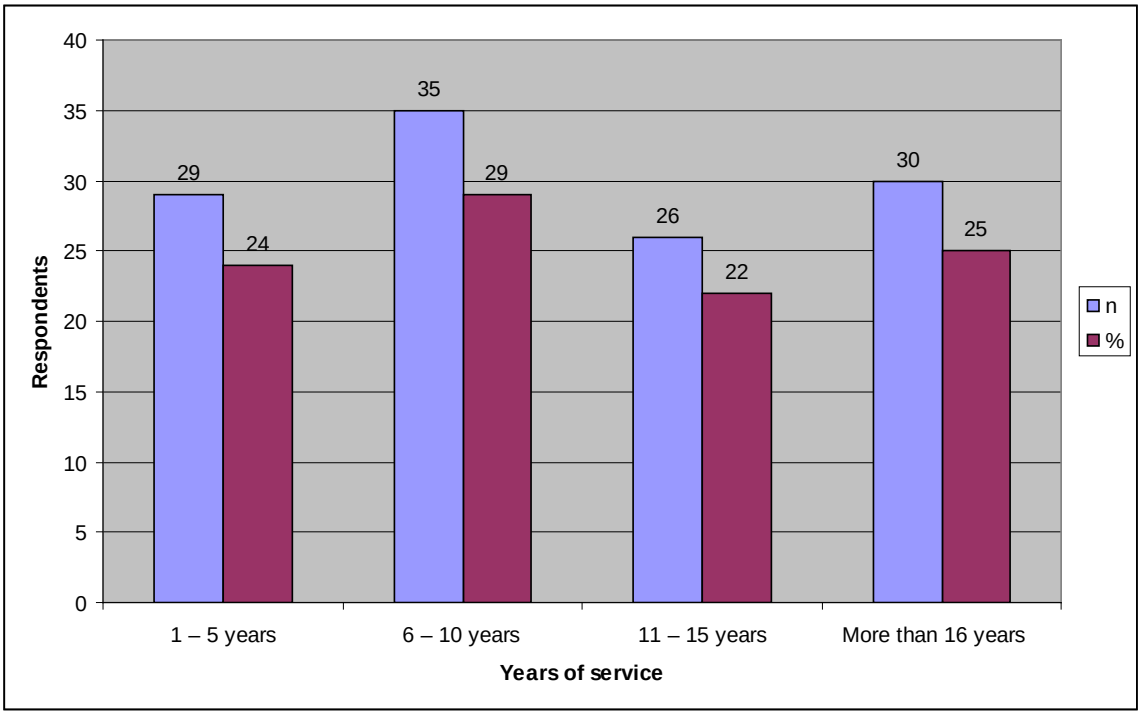

Figure 4.2 Respondents' years of service in their current position (n=120)

According to figure 4.2 the period of service at this hospital was lead by the 6-10 years group representing thirty-five (29%) respondents. However, there was not a great variance in the representation of the different time intervals. The majority (n=91; 76%) of the respondents had six or more years of work experience in their current positions.

4.3.1.4 Professional qualification

The professional qualifications of the respondents were identified, in order to determine their level of training and exposure to the nursing process and nursing care planning.

Table 4.2 Highest professional and academic qualification in nursing (n=120)

Professional qualification	**n**	**%**
Diploma (4 years education)	83	69
Advanced Diploma (2 years more of training)	19	16
Bachelor of Science in Nursing (3 years more of training)	18	15
Total	**120**	**100**

According to table 4.2 the majority of the respondents (n=83; 69%) were Diploma level nurses (4-year programme). Eighteen (15%) respondents acquired the Advanced

Diploma (2 years additional training). Advanced diploma holders have a 4-year diploma in nursing plus an additional 2 years of study in either ophthalmology, pediatrics, theater nursing, general nursing or midwifery. The Bachelor of Science nurses have a diploma or advanced diploma, and have undergone an additional three-year degree progamme. The respondents' qualifications corresponded to the inclusion criteria stipulated, and did not include any sub-professional care workers.

4.3.2 The nursing process

The questions in this section aimed at measuring the knowledge and understanding of the respondents regarding the nursing process.

4.3.2.1 Training on the nursing process

It was important to ascertain whether the respondents received training on the nursing process, a yes or no response was required.

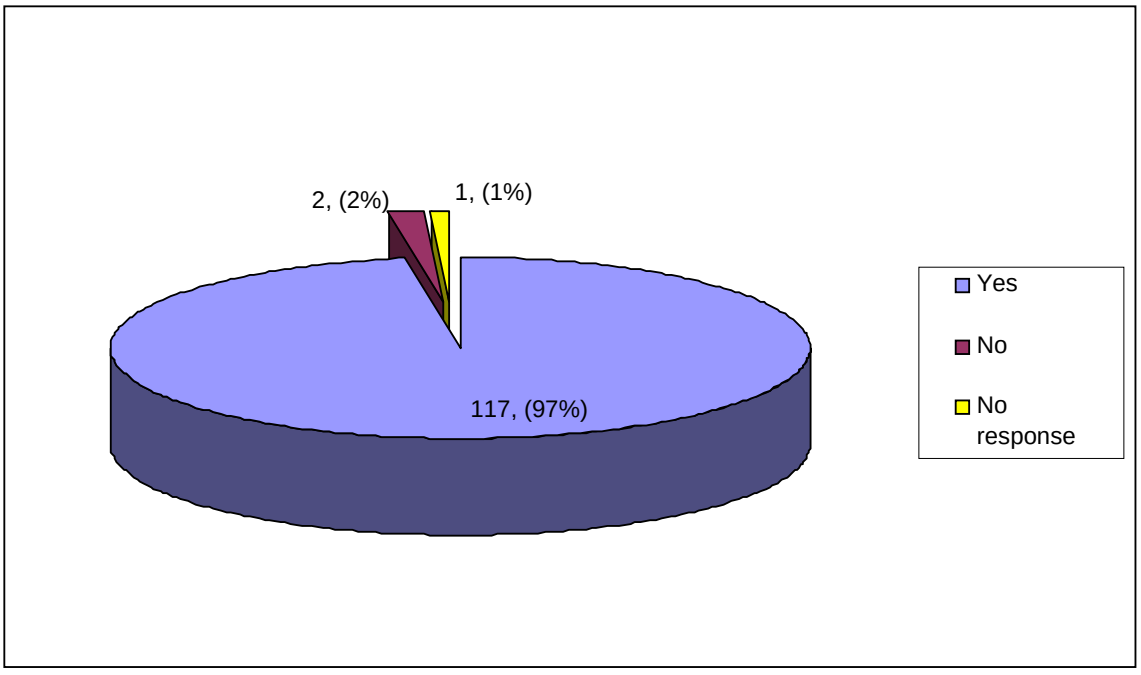

Figure 4.3 Training received on the nursing process (n=120)

It is evident from figure 4.4 that the greater majority (n=117; 97%) of the respondents indicated that they received training on the nursing process. This question did not differentiate between the length or type of training.

4.3.2.2 Type of training received on the nursing process

Those respondents who indicated that they received training on the nursing process in the previous question (n=117; 97%) were requested to indicate the type of training they received.

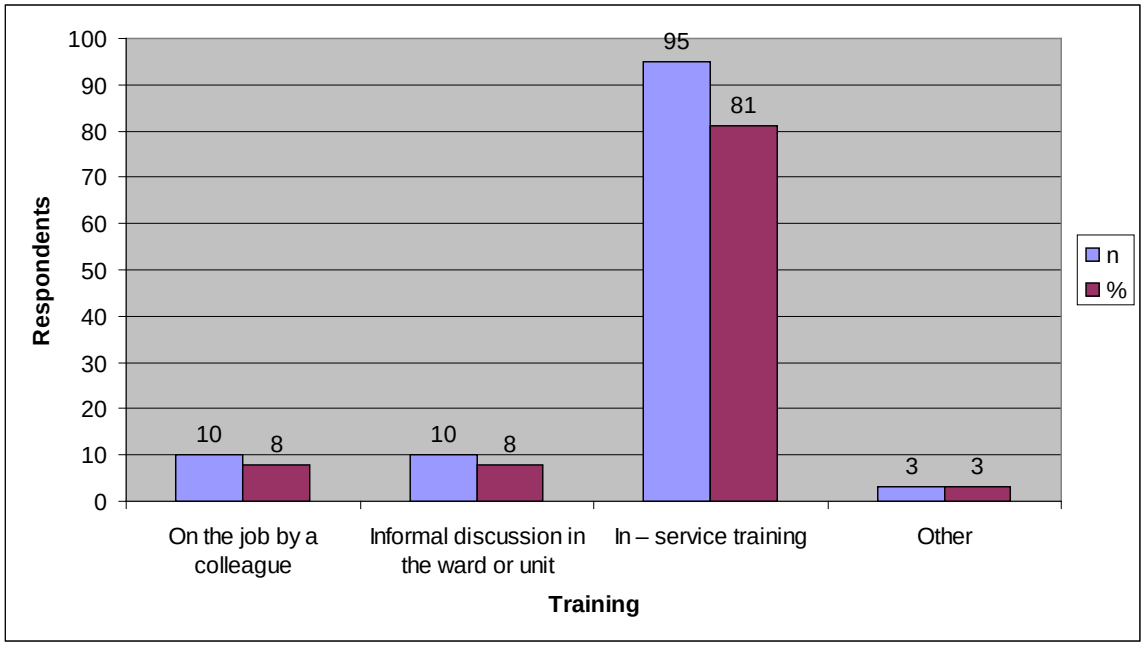

Figure 4.4 Type of training received on the nursing process (n=117)

According to figure 4.4 the majority of the respondents (n=95; 81%) who received training on the nursing process, received focused training by means of in-service training. This means it was taught and incorporated in the nursing curriculum for the majority of the respondents. From these results it is clear that 81% of the respondents received nursing process training in the clinical field where theory and practice is integrated.

4.3.2.3 Confidence in implementation of the nursing process

Determining the respondents' confidence in implementing the nursing process after receiving training on the topic was necessary in order to identify gaps or difficulties related to the implementation of the nursing process. Confidence is assumed to be the result of adequate professional development (Murray & Atkinson 2000:7), but cannot be taken as a direct indicator of competence.

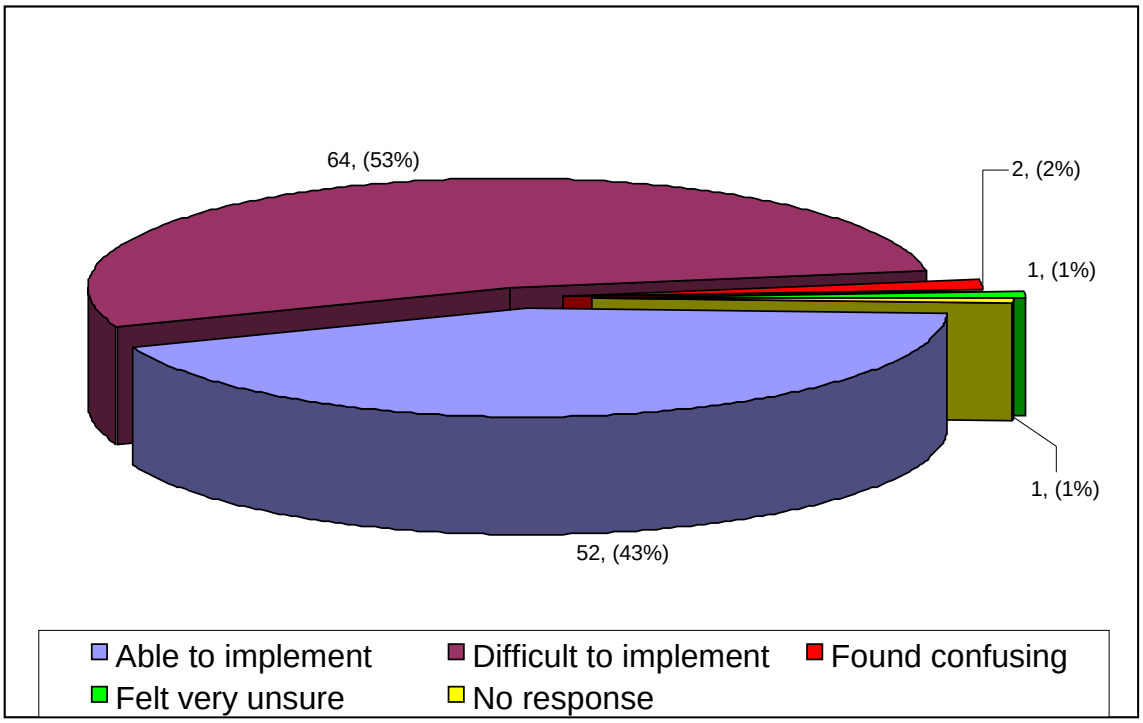

Figure 4.5 Confidence in implementing the nursing process (n=120)

According to figure 4.5, only 52 (43%) of the respondents were *able to implement* the nursing process. It was reported to be *understood but difficult to implement* by more than half of the respondents (n=64; 53%). Only one (1%) respondent felt *very unsure* and two (2%) found it confusing. It is disconcerting to note that a total of 68 (57%) respondents were not comfortable in implementing the nursing process. According to Kluwer (2008:70), some nurses have difficulty in writing nursing diagnoses because of the complexity of terminology from the North American Nursing Association (NANDA) such as having difficulty in combining the domains and the classes. For example the domain of self perception has three classes which are self concept, self esteem, and body image from which several nursing diagnoses could be formulated (Kluwer 2008:70). Furthermore, they find the taxonomy confusing. Those who are not familiar

with these concepts may spend a significant amount of time searching for appropriate wording, thus prohibiting them from applying the nursing process.

4.3.2.4 The purpose of the nursing process

The respondents were required to indicate what they considered the purpose of implementing the nursing process to be.

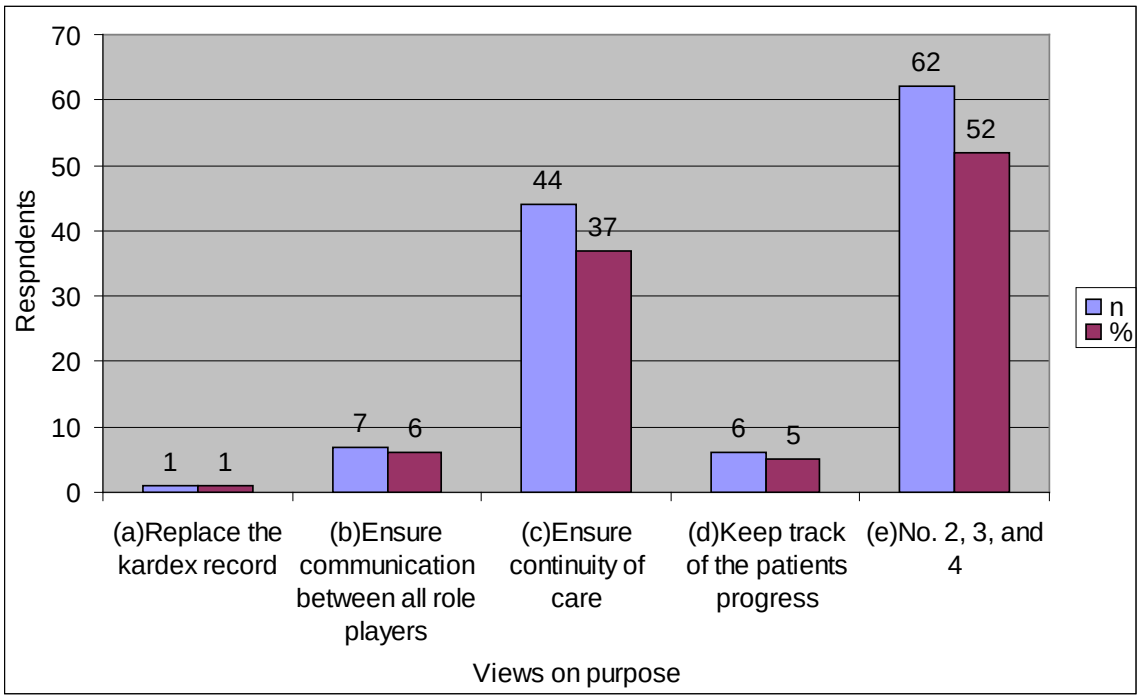

Figure 4.6 Respondents' view on the purpose of the nursing process (n=120)

From figure 4.6 it is clear that just more than half of the respondents (n=62; 52%) indicated that ensuring communication between all role players, ensuring continuity of care, and keeping track of patients' progress form part of the purpose of the nursing process. Forty-four (37%) of the respondents noted that the purpose of the nursing process is to ensure continuity of care, whereas 7 (6%) were of the opinion that it enhances communication between all the role players, and 6 (5%) felt that it served to keep track of patient's progress. According to Habermann and Uys (2005:3), the nursing process is supposed to enhance systematic care and to operate as a vehicle for communication, fostering continuity and visibility of care. Option (e) which includes options 2(b), 3(c), and 4(d) was therefore the correct answer, which was identified by

just more than half of the respondents who appeared to understand the aim of the nursing process as a method of providing nursing care.

4.3.2.5 The number of steps of the nursing process

Determining the respondents understanding of the steps of the nursing process would provide evidence that the respondents were familiar with the implementation of the nursing process.

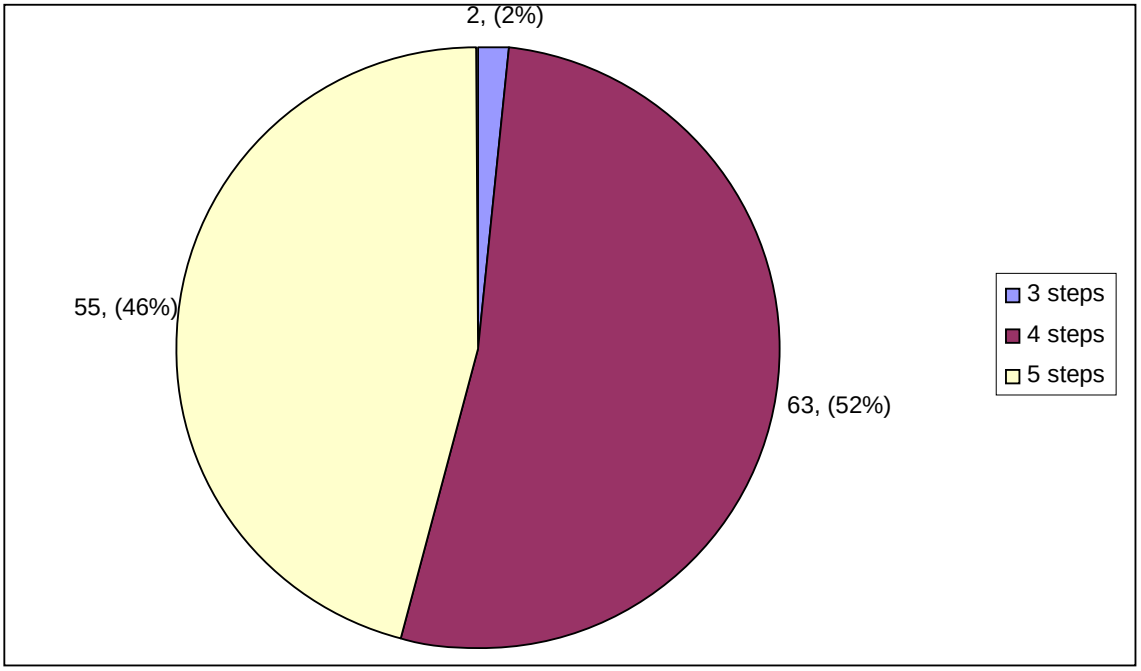

Figure 4.7 The number of steps of the nursing process (n=120)

According to figure 4.7, 63 (52%) of the respondents indicated that the nursing process has four steps, and 55 (46%) indicated five steps. According to Kluwer (2008:5) and Smith et al (2004:22), the nursing process has five steps namely assessment, nursing diagnosis, planning, implementation, and evaluation. The latter finding correlates with the 52 (43%) respondents who previously indicated that they were able to implement the nursing process. It is thus evident that less that 50% of the respondents knew how many steps were incorporated in the nursing process (n=55; 46%) and only 52 (43%) were comfortable in implementing the nursing process.

4.3.2.6 Parties involved in developing the nursing care plan

The respondents were required to name the parties involved in the development of the nursing care plan in order to determine whether the respondents realised that the patient was a key player in the process.

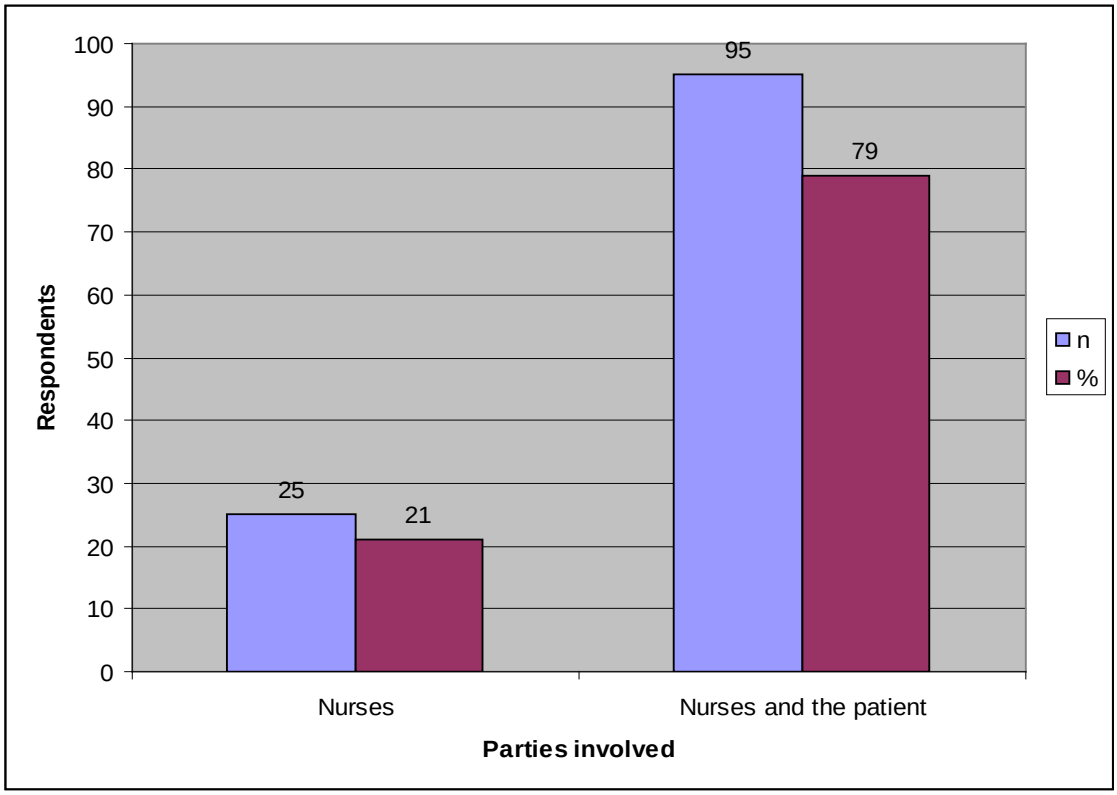

Figure 4.8 Parties involved in the development of a nursing care plan (n=120)

Ninety-five (79%) of the respondents correctly indicated that the parties involved in the development of the nursing care plan were the nurses and the patient. Whereas 25 (21%) were of the opinion that only nurses should be involved in developing the nursing care plans. According to Smith et al (2004:23), patients should be involved in the planning phase to ensure that the patients' and the health care team members' goals are congruent. It is therefore evident that the majority of the respondents involve patients in the planning of their care.

4.3.3 Assessment

The questions in this section were aimed at assessing the knowledge, skills and practice of the respondents in performing patient assessment. Patient assessment is the first step in the nursing process which every nurse should be conversant with when applying the nursing process. It should be conducted before performing any activity or procedure on the patient as it provides the background information to the patient's condition and establishes a baseline upon which future assessment and progress will be built.

In this section four questions were asked**,** two of the questions were attempting to identify the level of understanding, and two questions aimed to determine the practice of assessment.

4.3.3.1 The assessment phase of the nursing process

The respondents were given options to indicate what the assessment phase of the nursing process entails. This question was asked to explore their understanding of the key aspects of the assessment phase of the nursing process.

Table 4.3 Assessment phase of the nursing process (n=120)

Assessment phase	**n**	**%**
It is the first step of the nursing process	82	68
It establishes data for a specific patient	35	29
Involves the patient and relatives	3	3
Total	**120**	**100**

According to table 4.3, 82 (68%) of the respondents confirmed that assessment is *the first step of the nursing process* and 35 (29%) indicated that *assessment establishes data for a specific patient*. This provides evidence that the nurses were familiar with the purpose of the of the assessment phase. According to Kozier et al (2008:175), assessment is considered the first step of the nursing process. However, it is also carried out continuously during the implementation and evaluation phases, and provides patient specific data.

4.3.3.2 Requirements of the assessment phase

The respondents were requested to select the activities contained in the assessment phase, from a list of five activities.

Table 4.4 Activities contained in the assessment phase (n=120)

Requirements of the assessment phase	n	%
Taking and recording vital signs	6	5
Assessing and interpreting observations	96	80
Administering medication	2	2
Involving doctors and relatives	2	2
Taking the patient's medical history	14	12
Total	**120**	**100**

According to table 4.4, 96 (80%) of the respondents correctly indicated that the assessment process entails *assessing and interpreting observations* and *taking the patient's medical history* (n=14; 12%). According to Kozier et al (2008:191), during the assessment phase the nurse should verify data to confirm that it is accurate and factual and make interpretations or conclusions that are relevant.

4.3.3.3 Nurses and patient assessment

The respondents were required to verify the statement that nurses do not conduct patient assessment, as they depend on doctors' assessment. The aim of this question was to determine whether the respondents in actual fact perform nursing assessments or do they depend on the doctors' assessment. During assessment the nursing model differs from the medical model, whereas the nursing model deals with decision-making and problem-solving (Michalopoulos & Michalopoulos 2006:52). The medical diagnoses deal with disease and treatment (Murray & Atkinson 2000:77).

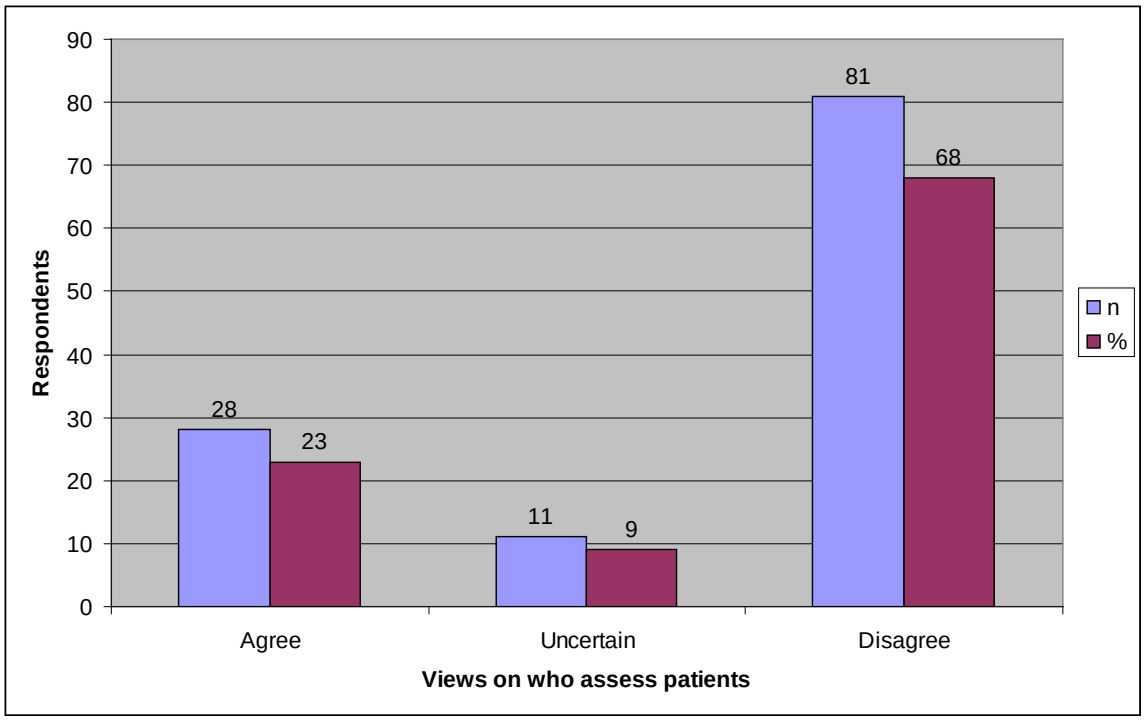

Figure 4.9 Respondents' view about who assesses patients during the assessment phase of the nursing process (n=120)

Figure 4.9 illustrates that 28 (23%) of the respondents *agreed* to the statement that nurses do not conduct patient assessments they depend on the doctors assessments. However, 81 (68%) respondents disagreed with this statement and 9% (n=11) were *uncertain*. There is a reason for concern if 39 (32%) of the nurses do not asses their patients as the first step of the nursing process.

4.3.3.4 Taking history from a patient during admission

The respondents were required to indicate to what extent they take a history from the patient when they are being admitted for elective surgery. Establishing whether nurses spend time taking history from patients during admission, especially for elective surgery, was important as this could provide evidence whether patient assessment was performed.

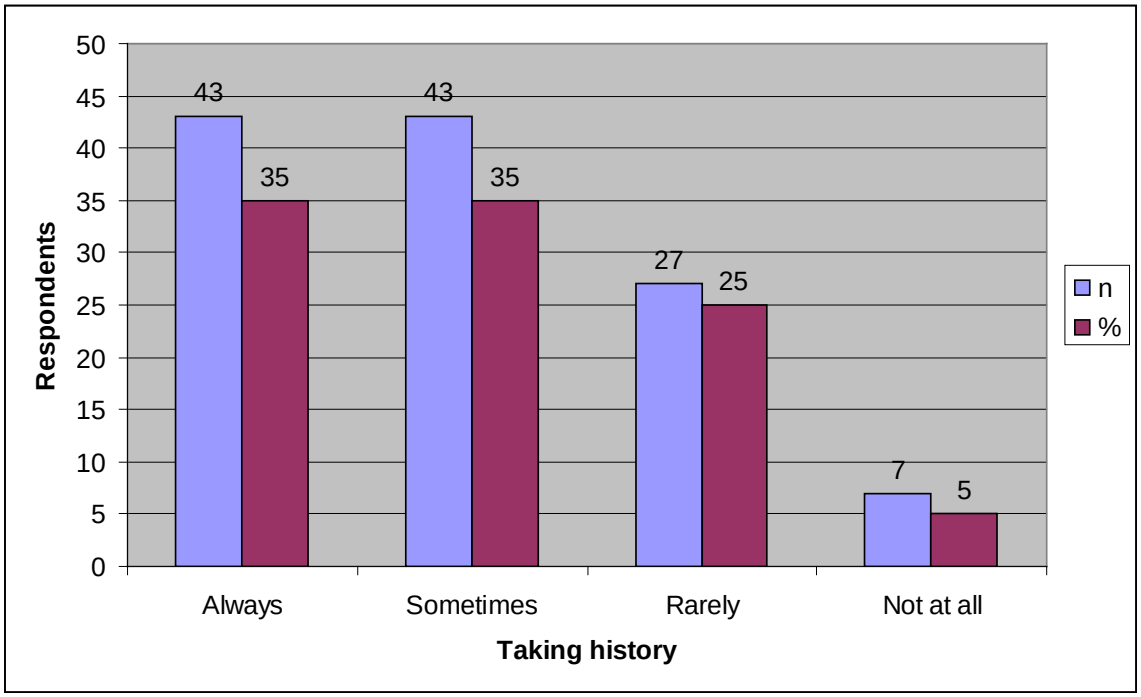

Figure 4.10 History taking during admission for elective surgery (n=120)

Figure 4.10 indicates that 43 (35%) of the respondents *always* took their patient's history during admission for elective surgery, while another 43 (35%) *sometimes* took a history from a patient being admitted for elective surgery. The remaining 27 (25%) *rarely* did so, and 7 (5%) *not at all*. It is a great concern that 77 (69%) of the respondents did not regularly take patients' history when they were being admitted for elective surgery. It is thus evident that history taking for patients admitted for elective surgery was only performed regularly by 43 (35%) of the respondents.

According to Murray and Atkinson (2000:51-52), the registered nurse should initiate the pre-operative assessment through history taking before surgery. This will facilitate a critical pathway which will enable planning a post-operative care to the patient.

4.3.3 Nursing diagnoses

The definition of nursing diagnosis states that the problems the nurse chooses to address are within the scope of the legal practice of nursing (Murray & Akinson 2000:77). The aim of this section was to investigate whether the respondents knew how to make nursing diagnoses and to establish whether they were practicing within their scope of practice.

4.3.4.1 Examples of medical diagnosis

This question required the respondents to differentiate between medical and nursing diagnoses. The respondents were required to indicate which of the options given are classified as medical diagnoses.

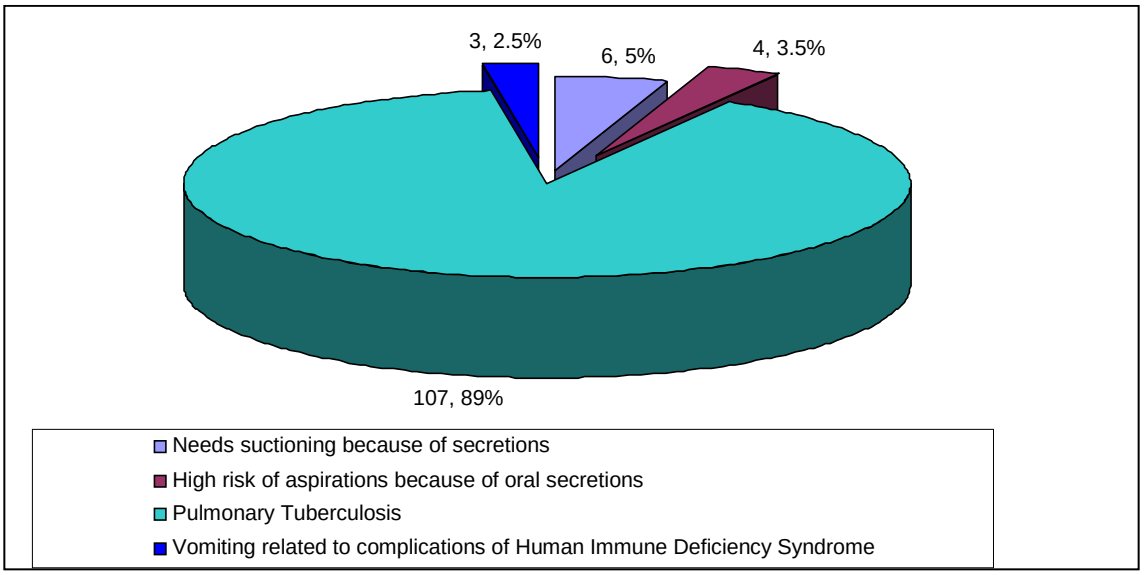

Figure 4.11 Respondents' identification of medical diagnoses (n=120)

Figure 4.11 illustrates that 89% (n=107) of the respondents correctly classified Pulmonary Tuberculosis as a medical diagnosis, while only a few respondents incorrectly labeled *needs suctioning because of secretions*, (n=6; 5%), *high risk of aspirations because of oral secretions* (n=4; 3.5%), and *vomiting related to complications of Human Immune Deficiency Syndrome* (n=3; 2.5%) as medical diagnoses. According to Kluwer (2008:9, 77) and Smith et al (2004:27), medical diagnoses are focused on the medical diseases and conditions. Pulmonary Tuberculosis is thus the correct example of a medical diagnosis in this case.

4.3.4.2 Examples of nursing diagnoses

This question is a follow up of the previous question, seeking to establish whether the respondents were able to select the nursing diagnoses from the four listed options. A nursing diagnosis is not the same as a medical diagnosis, though it may involve the medical diagnosis or treatment as a basis (Murray & Atkinson 2000:77).

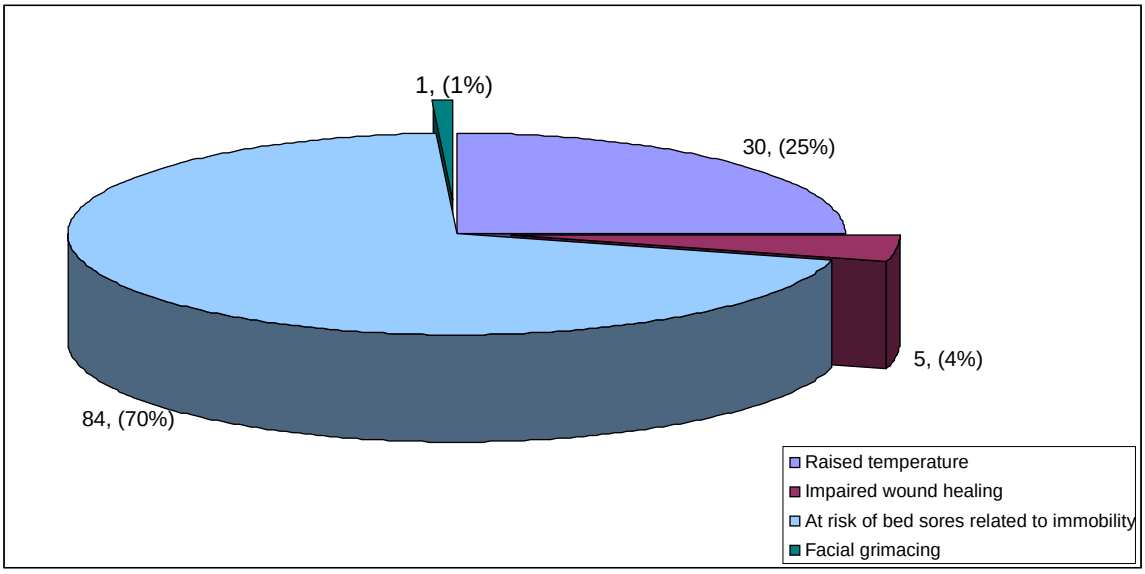

Figure 4.12 Respondents' identification of nursing diagnoses (n=120)

The findings in figure 4.12 indicate that 84 (70%) of the respondents identified *at risk of bed sores related to immobility* as a nursing diagnosis, also *raised temperature* by 30 (25%), *impaired wound healing* by 5 (4%), and *facial grimacing* by 1 (1%) of the respondents. According to Kozier et al (2008:198), medical diagnoses refer to disease process specific pathophysiologic responses that are fairly uniform from one patient to another, while in contrast, the nursing diagnoses describes the human response, a patient's physical, socio-cultural, psychological and spiritual responses to an illness or a health problem. A nursing diagnosis should include a "related to" clause, which makes *at risk of bed sore related to immobility,* the correct example of a nursing diagnosis in this example, which was identified by the majority of the respondents.

4.3.4.3 The effect of high patient numbers on the formulation of nursing diagnoses

When wards are very busy with high numbers of patients, there often is no time to perform all activities as they ideally should be executed. The respondents were thus required to indicate whether high patient volumes prevented them from formulating nursing diagnosis for their patients.

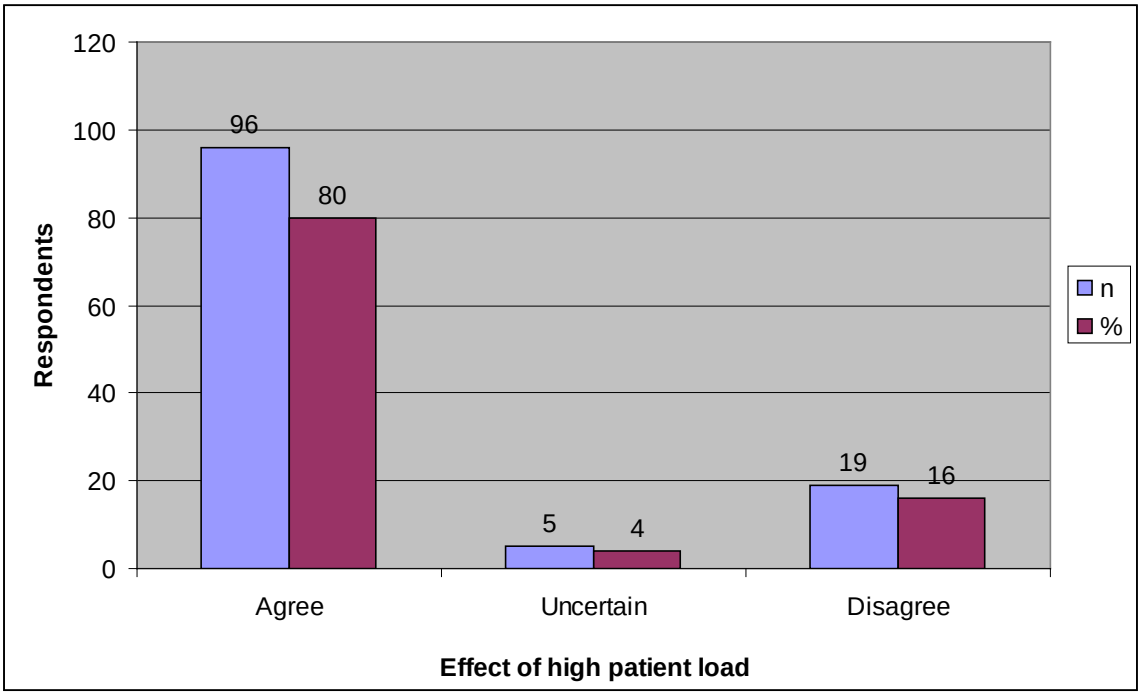

Figure 4.13 Effect of high patient load on formulating nursing diagnoses (n=120)

The majority (n=95; 80%) of respondents *agreed* to the statement that high patient numbers prevent nurses from formulating nursing diagnoses, but 19 (16%) *disagreed* that this was the case. Refer to figure 4.13. According to Kluwer (2008:90), the process of developing a nursing diagnosis consists of three activities namely, data analysis, problem identification, and the formulation of the nursing diagnosis. Nurse patient ratios at this specific hospital is supposed to be 1:8 but more often the ratio is 1:20 thus bringing about a very heavy work load for nurses, which could prevent them from applying the nursing process correctly due to a shear work overload.

4.3.4.4 Provision of communication link through nursing diagnoses

The respondents were required to indicate their views as to whether the nursing diagnosis is documented to serve as a communication link between all health care practitioners involved in the patient's care and treatment.

Table 4.5 Nursing diagnoses as a communication link between health care practitioners (n=120)

Documentation of nursing diagnoses	n	%
Yes	113	94
No	4	3
Uncertain	3	3
Total	120	100

In table 4.5, most (n=113; 94%) of the respondents responded positively, supporting the documented nursing diagnoses as a means of communication between all health care practitioners regarding the patient's health status. According to Smith et al (2004:28), the nursing diagnoses provides a means of synthesising and communicating nurses' observations and judgments to all members of the health care team.

4.3.4.5 The intervals for evaluating the nursing diagnosis

The respondents were required to specify the intervals at which the nursing diagnosis should be reviewed in order to make adjustments to the care plans as the patient's condition changed. Refer to figure 4.14.

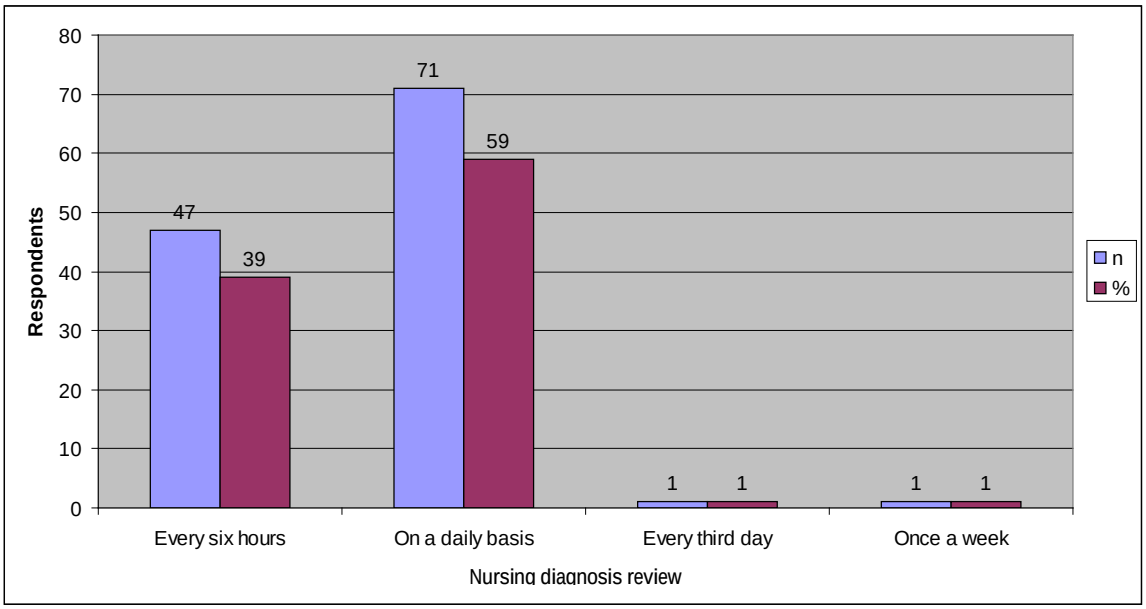

Figure 4.14 Intervals at which the nursing diagnoses was reviewed (n=120)

Forty seven (30%) of the respondents indicated that they re-assess the nursing diagnosis *every six hours,* and 71 (59%) do so *on a daily basis.* According to Kluwer (2008:154), updating the care plan begins with determining whether the patient has achieved the desired outcomes which might affect the nursing diagnosis, therefore, updating usually start by determining whether the patient has achieved the outcomes. If the outcome is not fully met the nursing diagnoses could be reviewed.

4.3.5 Planning

The outcome of planning during the nursing process is patient care plans. The aim of this section was to determine the respondents' understanding and skills of nursing care planning and the development of nursing care plans.

4.3.5.1 The components of planning

The respondents were required to select from four possibilities the major components of planning.

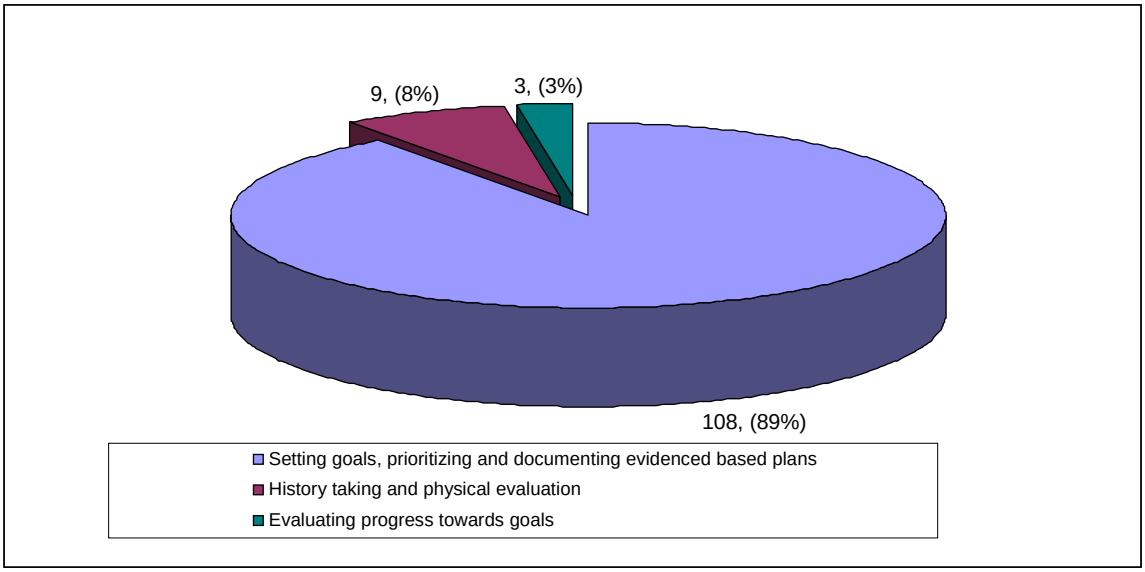

Figure 4.15 Respondents' views on the major components of planning (n=120)

According to figure 4.15, from the given options, *setting goals, prioritising and documenting evidence-based plans* was selected by 89% (n=108) of the respondents as the major component of planning. The options of *history taking and physical*

evaluation was indicated by 9 (8%) and *evaluating progress* towards goals was indicated by 3 (3%) of the respondents. Another option was *discharging patients* which was not selected by any of the respondents.

According to Chitty and Black (2007:200), planning begins with identification of patient goals and determination of ways to reach those goals. The majority of the respondents therefore selected the correct option as the major component of the planning process. History taking and physical evaluation are components of assessment.

4.3.5.2 Definition of planning

The respondents were required to select the most appropriate definition of planning from four given options.

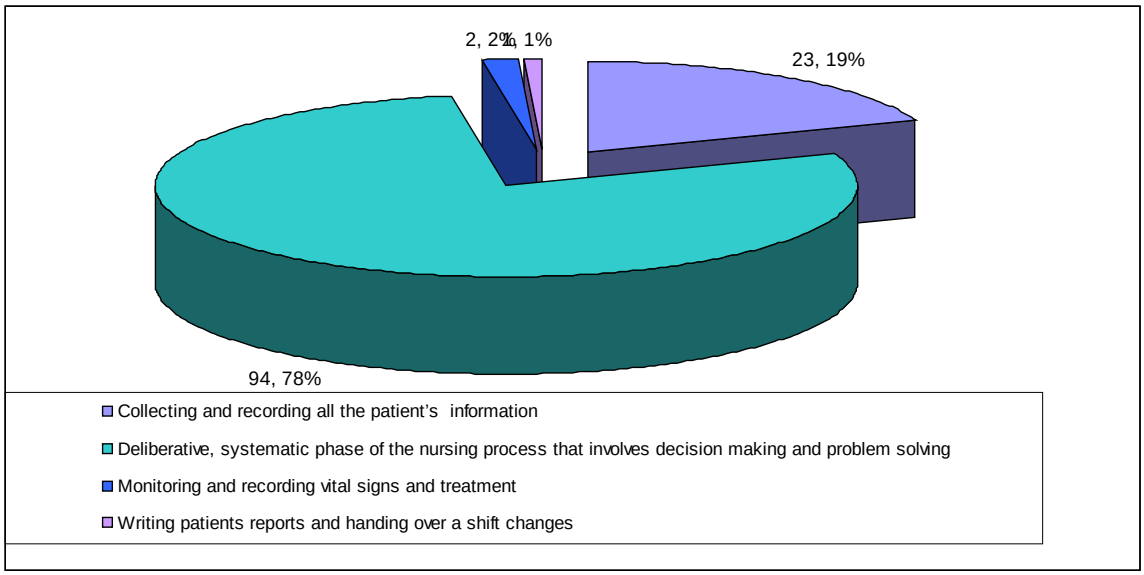

Figure 4.16 Definition of planning (n=120)

From figure 4.16, it is clear that the option of *deliberative, systematic phase of the nursing process that involves decision-making and problem-solving* was correctly indicated by 94 (78%) of respondents. The options of *collecting and recording patient information* was selected by 23 (19%), *monitoring and recording vital signs and treatment* by 2 (2%), and *writing patients' reports and handing over at shift changes* by only 1 (1%) of respondents.

Kozier et al (2008:211) confirms that planning is a deliberative, systematic phase of the nursing process which involves decision-making and problem-solving. Keane (2003:1377) states that planning is consciously setting forth a scheme to achieve a desired end or goal. The majority of the respondents selected the correct component of the planning phase which shows that they understand the essence of the planning phase.

4.3.5.3 Nursing care plans

The respondents were required to consider a number of aspects in relation to nursing care plans in order to determine their understanding of the nature of the care plans.

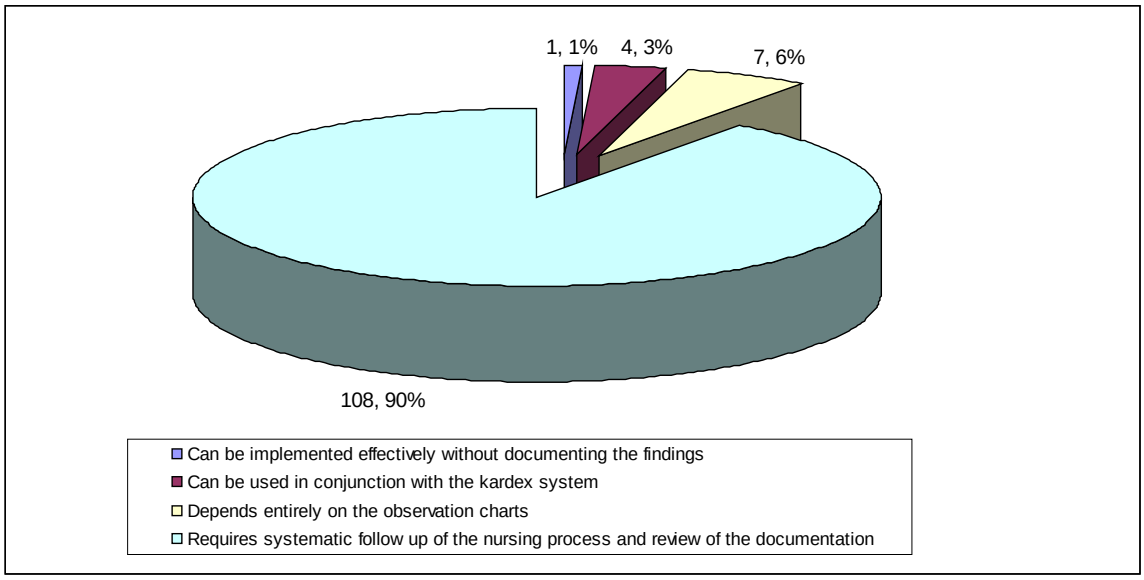

Figure 4.17 Respondents' views about aspects relating to nursing care plans (n=120)

The findings illustrated in figure 4.17 indicates that 90% (n=108) of the respondents correctly indicated that *nursing care plans require systematic follow up of the nursing process and review of the documentation.* This is substantiated by Kozier et al (2008:212) who are of the opinion that nursing care plans include the actions the nurse must take to address the patient's problems, and that they are constantly updated throughout the patient's stay in response to changes in the patient's condition and evaluation of goal achievement. The option of it *can be implemented without documenting findings* was selected by only 1 (1%) respondent, it *can be used in*

conjunction with the kardex system was selected by 4 (3%), and *it depends entirely on the observation charts* as indicated by 7 (6%) of the respondents.

4.3.5.4 Standardised care plans to improve nursing care

This question was asked to determine if the respondents consider standardised care plans as a tool for improving the quality of patient care.

Table 4.6 Standardised care plans as a means of improving the quality of nursing care (n=120)

Standardised care plans help to improve care	**n**	**%**
Agree	115	96
Disagree	5	4
Total	**120**	**100**

The majority (n=115; 96%) of the respondents *agreed* that standardised plans could help to improve the quality of patient care, while only 5 (4%) d*isagreed* with the statement. Refer to table 4.6. McMahon (2010:1) postulates that all standards of practice provide a guide to judge the knowledge, skills, judgment and attitudes that are needed to practice. Therefore patients with common conditions such as diabetic, head injuries or comatose patients could benefit from standardised care plans as the major components of their nursing care would be common to all patients suffering from the same condition.

4.3.5.5 The effect of time constraints on the implementation of care plans

The respondents were required to indicate their agreement, or not, of time being a restrictive factor in the implementation of nursing care plans.

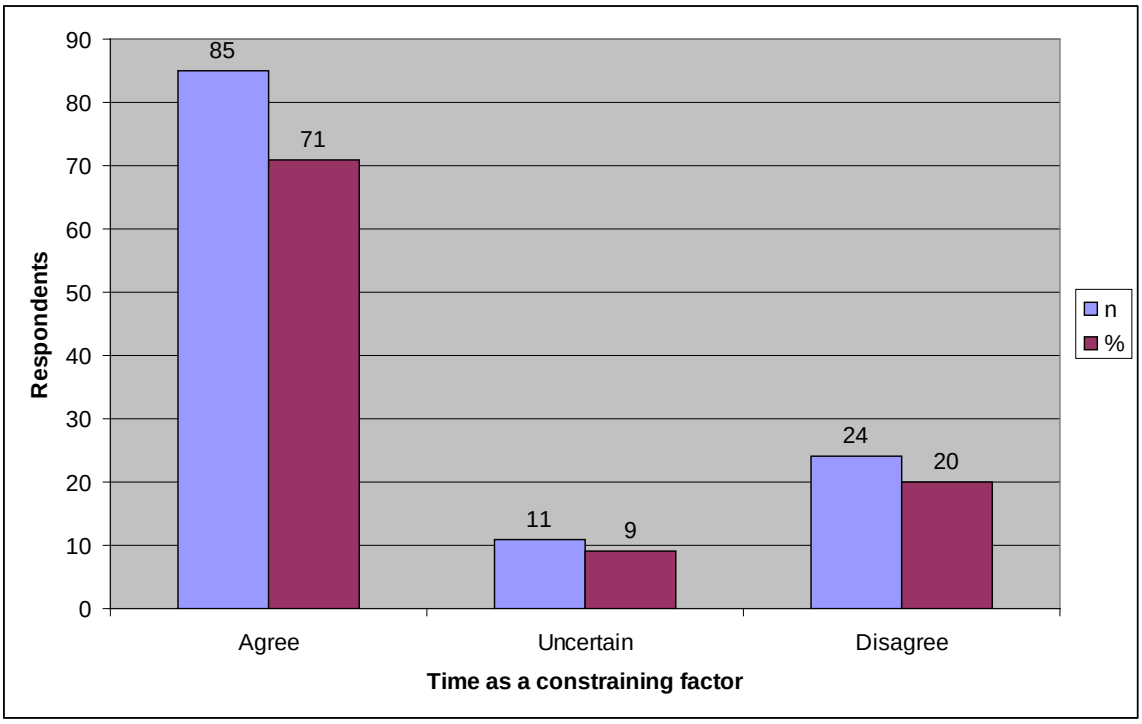

Figure 4.18 Time as a constraining factor in the implementation of nursing care plans (n=120)

The majority (n=85; 71%) of the respondents *agreed* that time is a constraining factor in the implementation of nursing care plans, 24 (20%) *disagreed* and 14 (9%) were *uncertain.* Refer to figure 4.18. It thus appears that high patient volumes, increasing the workload of nurses, is a deterrent to the formal implementation of nursing care plans.

4.3.5.6 Nursing care plans serves as a road map

The respondents were required to indicate their level of agreement with the statement that nursing care plans are part of the nursing process, and that they serve as a road map that guides the nursing staff in the care of their patients.

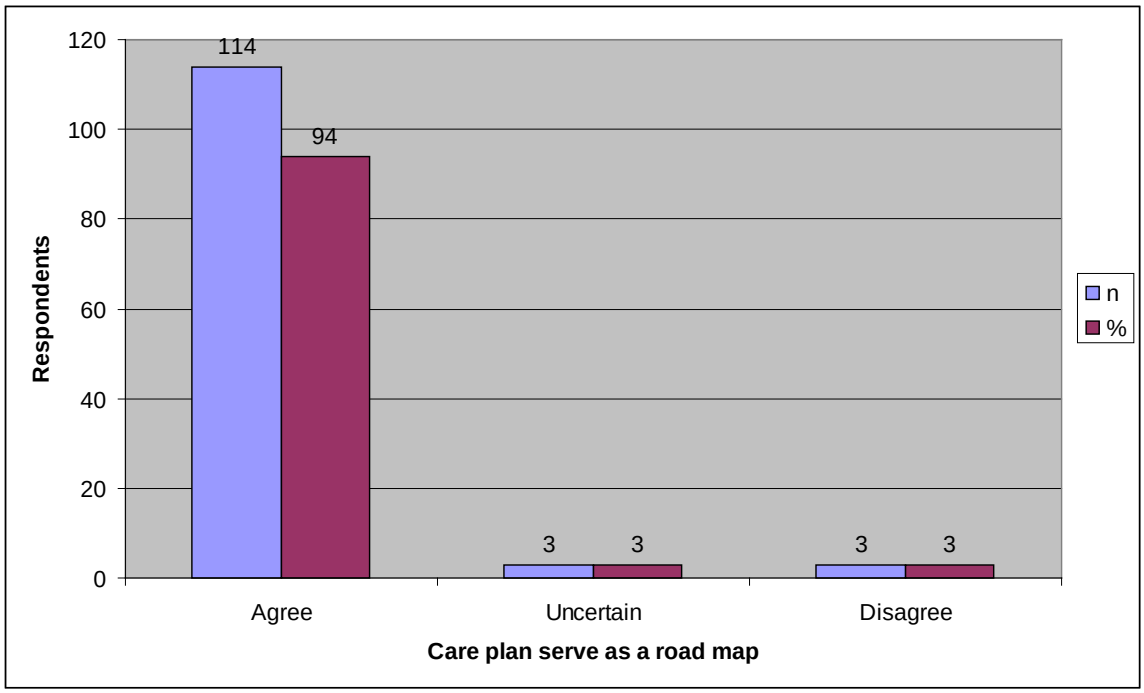

Figure 4.19 Nursing care plans serve as a road map (n=120)

According to figure 4.19, the majority (n=114; 94%) of respondents *agreed* that nursing care plans are part of the nursing process, and that they serve as a road map to the provision of patient care. Three (3%) respondents *disagreed*, and another 3 (3%) were *uncertain* as to whether this was so. A study conducted by Taylor and Wros (2006:212) indicated that care plans help to organise assessment and to modify the plan of care in a nonlinear strategy whereby the data is organised around a central nursing diagnoses and brings the different components of nursing care together. Kluwer (2008:67) states that if nurses use a concept map to plot out the patient's assessment data then the map can be used to help define the best nursing diagnoses. It is therefore evident that nursing care plans could serve a positive role in guiding nursing staff in the care of their patients.

4.3.5.7 Individualised care plans

The respondents were required to indicate their level of agreement with the statement that every patient is unique, and will therefore require an individualised care plan.

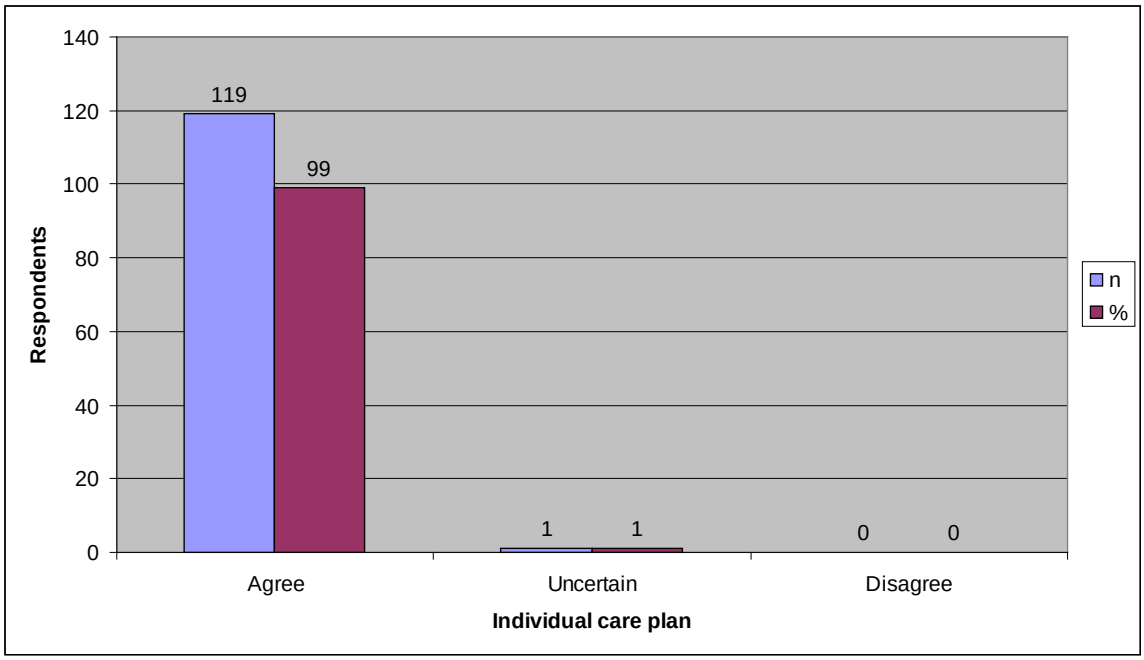

Figure 4.20 Individualised care plan (n=120)

From figure 4.20, it is evident that all but one (n=119; 99%) respondent, were of the opinion that every patient is unique and will need an individualised care plan. According to Smith et al (2004:35), all patients must have individualised plans of care, even though the standard care plan is used as a bases. Despite the common activities contained in standardised care plans, individualised adjustments are required to make provision for each patient's unique problems and needs.

4.3.5.8 Handing over care plans during shift changes

The respondents were required to indicate whether nursing care plans were being handed over during shift changes. Establishing the handing over of the nursing care plans during shift changes is important as this would facilitate the continuity of care.

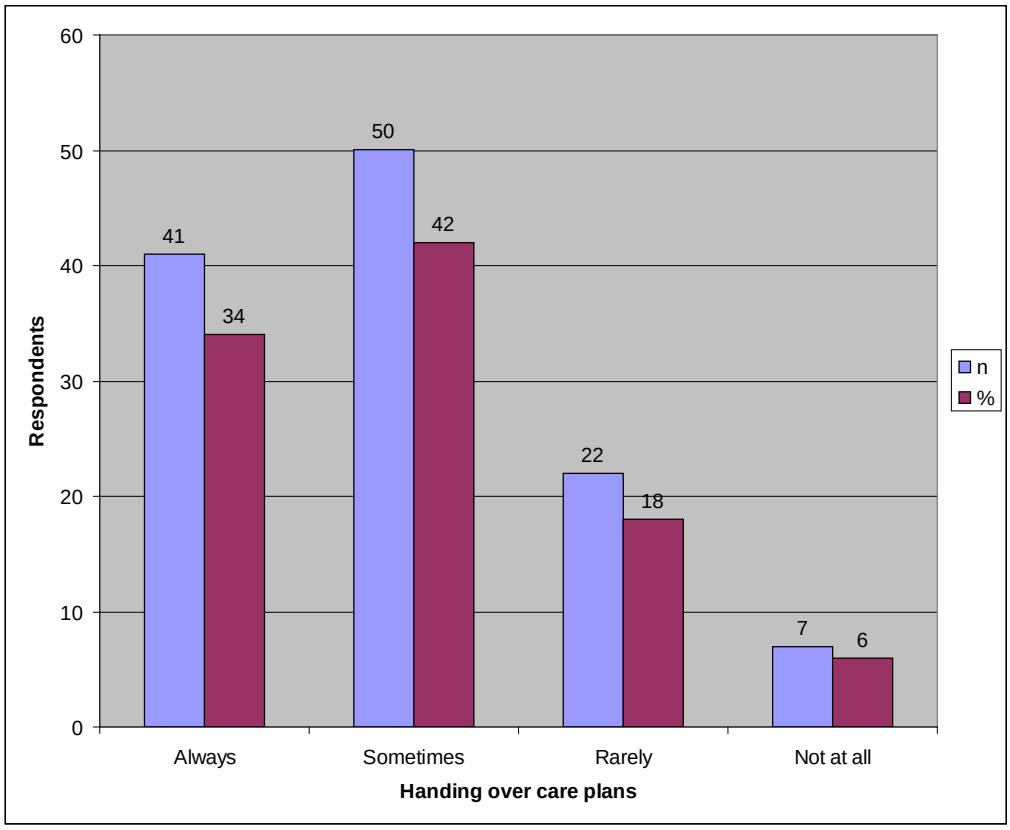

Figure 4.21 Handing over of the care plans during shift changes (n=120)

It is apparent from figure 4.21, that just more than a third (n=41; 34%) of the respondents stated that hand over of care plans during shift changes was *always* performed, *sometimes* by 42% (n=50), *rarely* by 10%, (n=22) and *not at all* by 6% (n=7). It is disconcerting that 79 (66%) of the respondents indicated that nursing care plans are not routinely handed over during shift changes, which places doubt on the respondents' insight into the dynamics of the nursing process.

According to Murray and Atkinson (2000:127), the planned nursing interventions should be communicated to other nurses on the patient's care plan to promote a consistent approach toward the achievement of an outcome.

4.3.5.9 Provision of nursing care without care plans

The respondents were required to disclose whether when there were high volumes of patients in the wards, nursing care was provided without care plans.

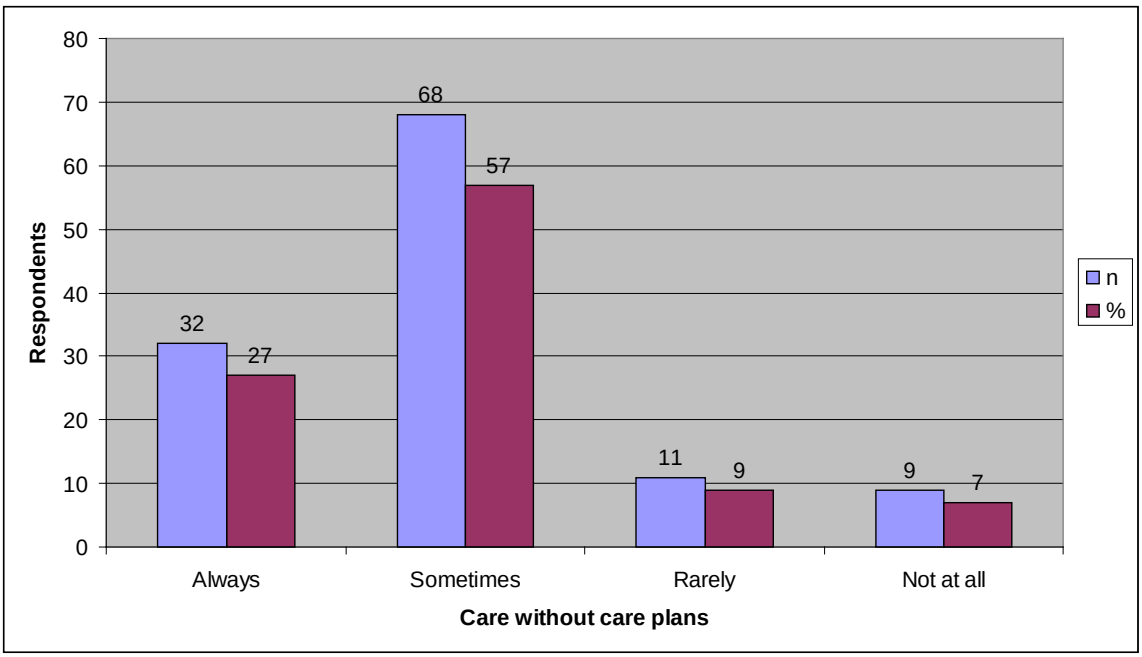

Figure 4.22 Provision of nursing care without care plans (n=120)

Thirty two (27%) of the respondents noted that the provision of patient care was *always* performed without care plans, *sometimes* by 60 (57%), *rarely* by 11 (9%) and *not at all* by 9 (7%) respondents. Refer to figure 4.22. According to Habermann and Uys (2005:4), research results and professional reports stress the fact that the nursing process is not well accepted by practitioners who have to put the system into practice and this has resulted in poor implementation of the nursing process. It is therefore evident that continuity of patient care would be impaired if care plans were not developed and implemented for each patient in a systematic manner.

4.3.5.10 Discussion of nursing care with patients

The respondents were required to indicate the frequency of discussing care plans with their patients. The aim of asking this question was to ascertain whether patients were involved in the planning of their care, and if so, with what frequency.

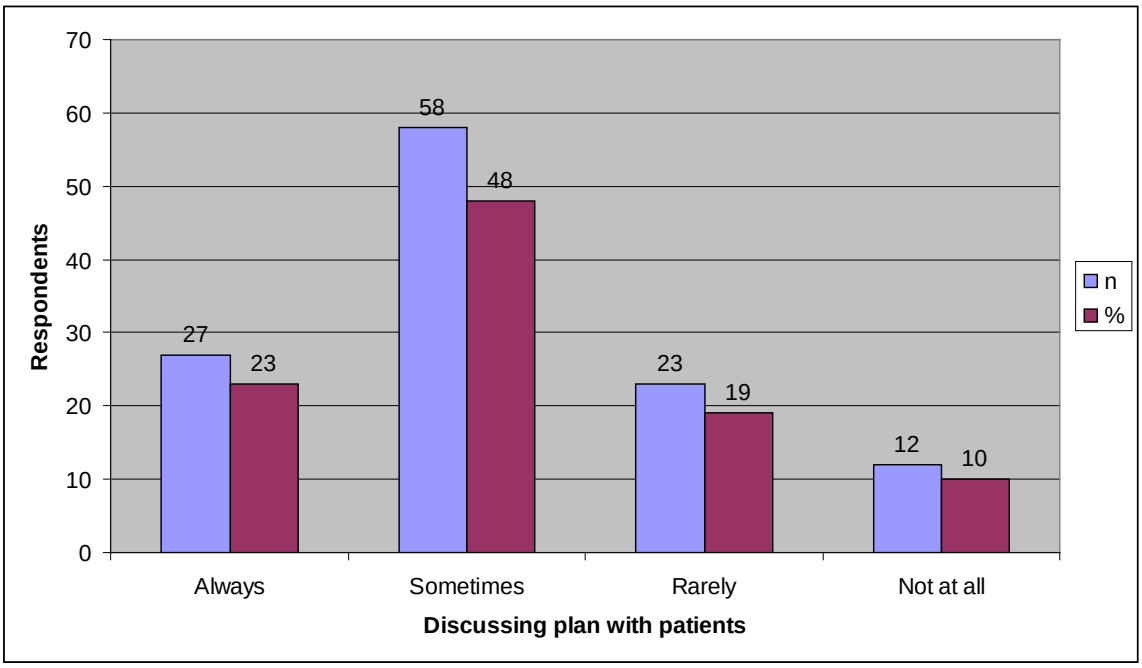

Figure 4.23 Discussing nursing care plans with patients (n=120)

From figure 4.23, 27 (23%) of the respondents indicated that the frequency of discussing care plans with patients was *always*, s*ometimes* by 58 (48%), *rarely* by 23 (19%) and *not at all* by 12 (10%) of the respondents. According to Kluwer (2008:96), discussing the care plans with the patient and keeping them informed about their progress and needed changes can be mutually beneficial. It is thus regrettable that care plans were not discussed with the individual patients on a regular basis.

4.3.6 Implementation

This section aims at exploring the respondents' knowledge and understanding of implementing the planned nursing care, and especially the responsibilities and factors associated with the hindrance of implementing care plans.

4.3.6.1 Implementation phase of the nursing process

The respondents were required to indicate which of the number of listed activities were relevant to the implementation phase of the nursing process.

Table 4.7 Activities contained in the implementation phase of the nursing process (n=120)

Item	Activities	n	%
1	Monitoring and recording the vital signs of a patient	10	8
2	Prioritising nursing actions and documenting plans	41	34
3	Bathing of patients	6	5
4	Providing comfort post operatively	1	1
5	1 and 2 above	62	52
Total		**120**	**100**

The findings from table 4.7 illustrate that 10 (8%) of the respondents selected *monitoring and recording the vital signs of a patients* as an activity of the implementation phase*, prioritising nursing actions and documenting plans* by 41 (34%), *bathing of patients* by 6 (5%), and *providing care post operatively* by 1 (1%) respondent. The option of *monitoring and recording the vital signs of a patient* and *prioritising nursing actions and documenting plans* was selected by 63 (52%) of the respondents. According to Smith et al (2004:23), implementation deals with prioritising nursing actions and interventions performed to accomplish a specified goal. An inconsistency is noted in the responses of respondents with regard to the first two items in the table and the fifth item. Fifty one (42%) respondents selected either the first or second item, whereas 62 (52%) selected the combination of these two items.

4.3.6.2 The basis for implementing the nursing process

The respondents were required to select the aspect on which the implementation of the nursing process was based. This question was asked to find out whether the respondents could distinguish between nursing activities and those of doctors.

Table 4.8 Basis for implementing the nursing process (n=120)

Basis of nursing process	n	%
The medical diagnosis	5	4
Accurate and complete nursing assessment, analysis, nursing diagnoses and strategies to achieve goals	111	93
The current patient vital signs	3	3
The doctors orders as recorded in the patient's notes	1	1
Total	**120**	**100**

The findings in table 4.8 indicate that the greater majority (n=111; 93%) of the respondents correctly indicated *accurate and complete nursing assessment, analysis, nursing diagnoses and strategies to achieve goals* as the basis for implementing the nursing process. *The medical diagnosis* was indicated by 5 (4%), *the current vital signs* by 3 (3%) and *the doctor's orders as recorded in the patient's notes* by 1 (1%) respondent. According to Smith et al (2004:24), the implementation phase of the nursing process is based on accurate and complete assessment, interpretation of data, identified client needs, goals and outcomes, analysis, nursing diagnosis and strategies to achieve goals.

4.3.6.3 Involvement of nurse leaders in non-nursing duties

The respondents were required to indicate if nurse leader's involvement in non-nursing duties (such as house keeping issues and organising repairs) contributes to poor implementation of the nursing process. This question was asked to determine if respondents consider the ineffective implementation of the nursing process to be due to a lack of supervision.

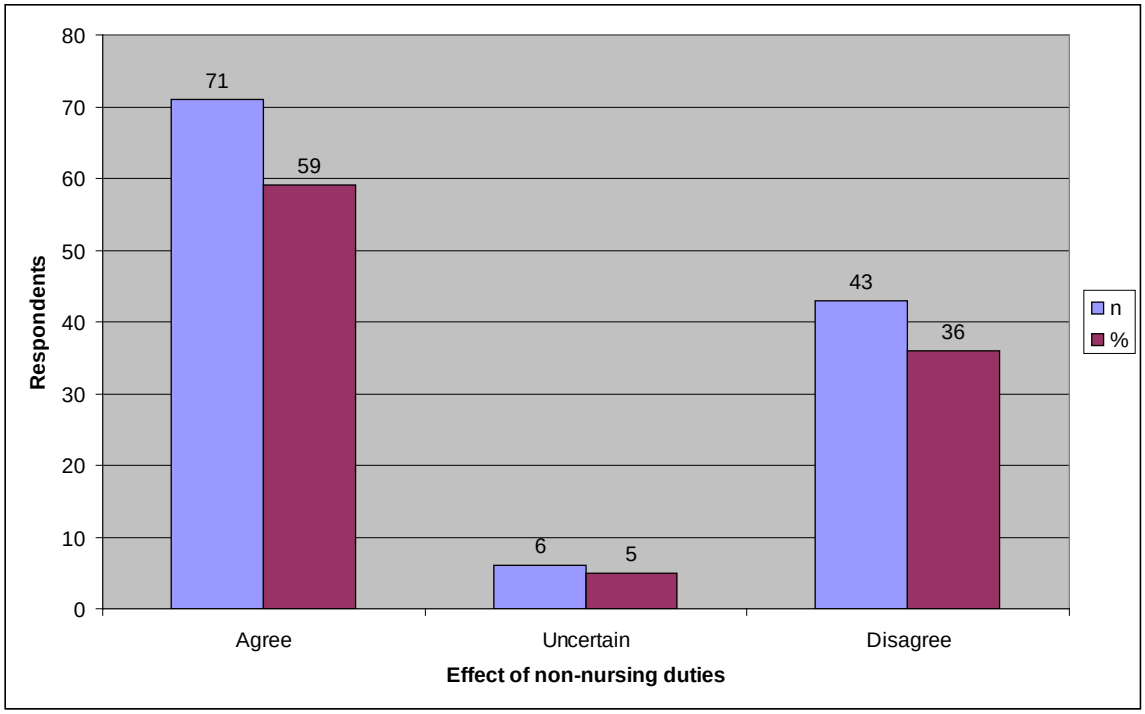

Figure 4.24 Effect of non-nursing duties on the implementation of the nursing process (n=120)

Seventy one (59%) of the respondents *agreed* that the involvement of nurse leaders in non-nursing duties contributed to poor implementation of the nursing process, whereas 43 (36%) *disagreed*, and 6 (5%) were *uncertain*. Refer to figure 4.24. According to Kozier et al (2008:235), a nurse responsible for patient care must ensure that nursing activities are implemented according to the care plan. It is therefore evident that if a nurse leader is responsible for other non-nursing duties which might take her away from the patients, supervision over the implementation of the nursing process may be negatively affected.

4.3.6.4 Patients' progress in the absence of care plans

The respondents were required to indicate whether they agree that patients do not make satisfactory progress if care plans were not implemented.

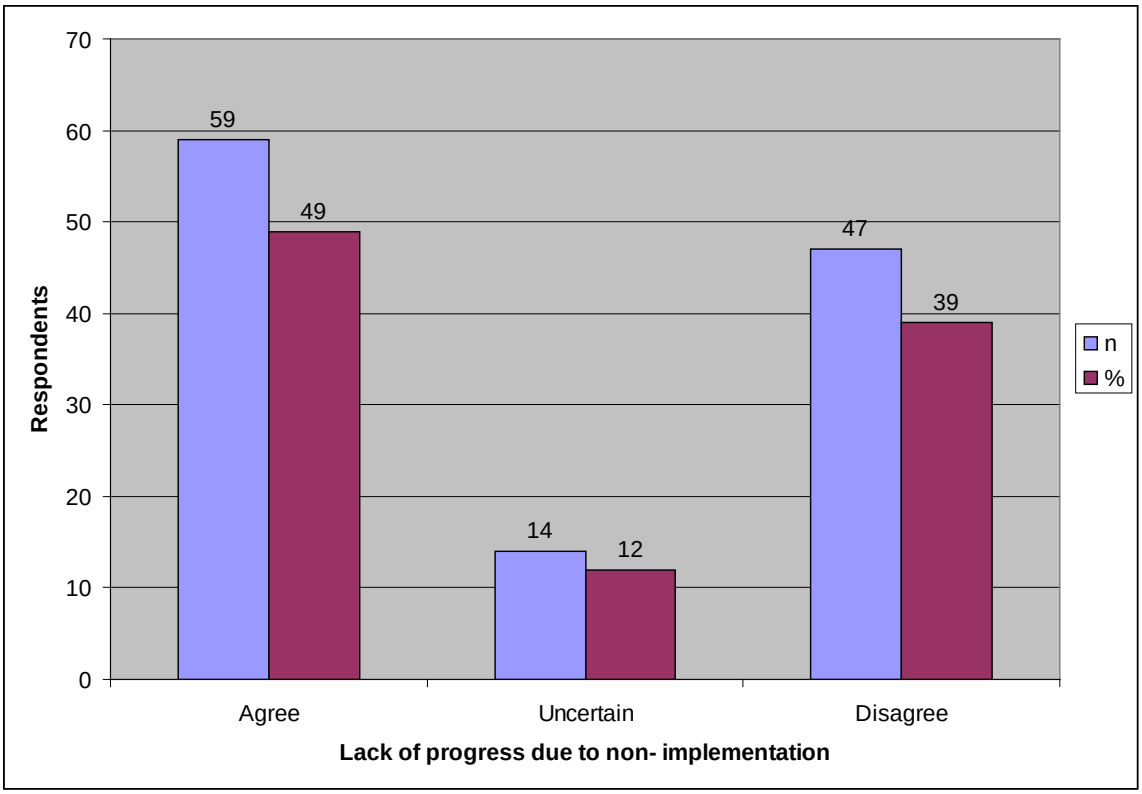

Figure 4.25 Lack of patient progress due to non-implementation of care plans (n=120)

Fifty nine (49%) of the respondents *agreed* that patients do not make progress if care plans were not implemented, while 47 (39%) *disagreed,* and 14 (12%) of the respondents were *uncertain*. Refer figure 4.25. Smith et al (2004:35) and Kluwer (2008:120) stipulates that patient care plans are an essential part of providing nursing care and without them, quality and consistency of patient care may not be obtained. The performed planned activities have to be communicated to other interdisciplinary team members. This view is also substantiated by Kozier et al (2008:233) who state that the implementation phase provides the actual nursing activities, and the patient responses that are examined in the final phases of evaluation. It can therefore be expected that patients will not make optimal progress if care plans are not implemented.

4.3.6.5 Factors which hinder the implementation of the nursing process

The respondents were required to indicate whether they agree that the implementation phase of the nursing process is hindered by lack of practical skills and knowledge of the nursing staff.

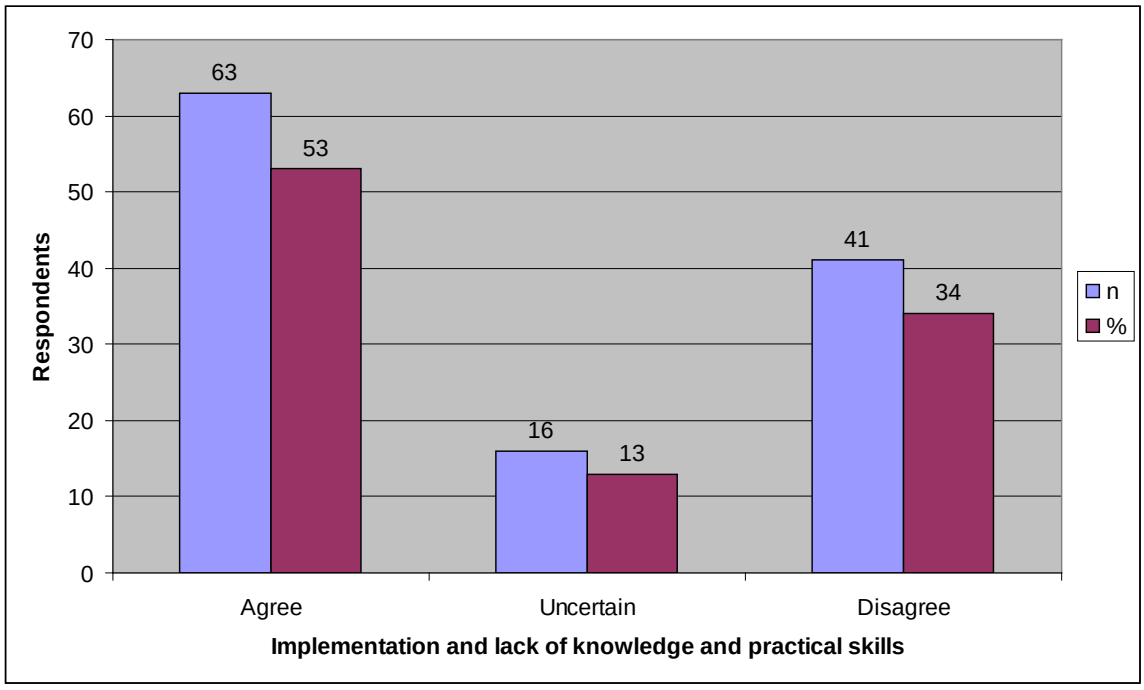

Figure 4.26 Lack of knowledge and practical skills of nursing staff in implementing the nursing process (n=120)

Sixty three (53%) of the respondents *agreed* that in actual practice, implementation of the nursing process is hindered by the lack of knowledge and practical skills of nursing staff, 41 (34%) *disagreed*, and 16 (13%) were *uncertain*. Refer figure 4.26. According to Kozier et al (2008:233), the successful implementation of care plans requires the nurse to have the necessary cognitive, interpersonal, and technical skills. In practice the nurse uses these skills in combination depending on the circumstances, to plan implement and assess the care he/she provides. Nurses' lack of knowledge and practical skills could therefore negatively impact on the implementation of the nursing process.

4.3.6.6 Aspects which hinder the implementation of the nursing process in units

The respondents were required to identify aspects which hinder the implementation of individualised patient care based on the principles of the nursing process in their units.

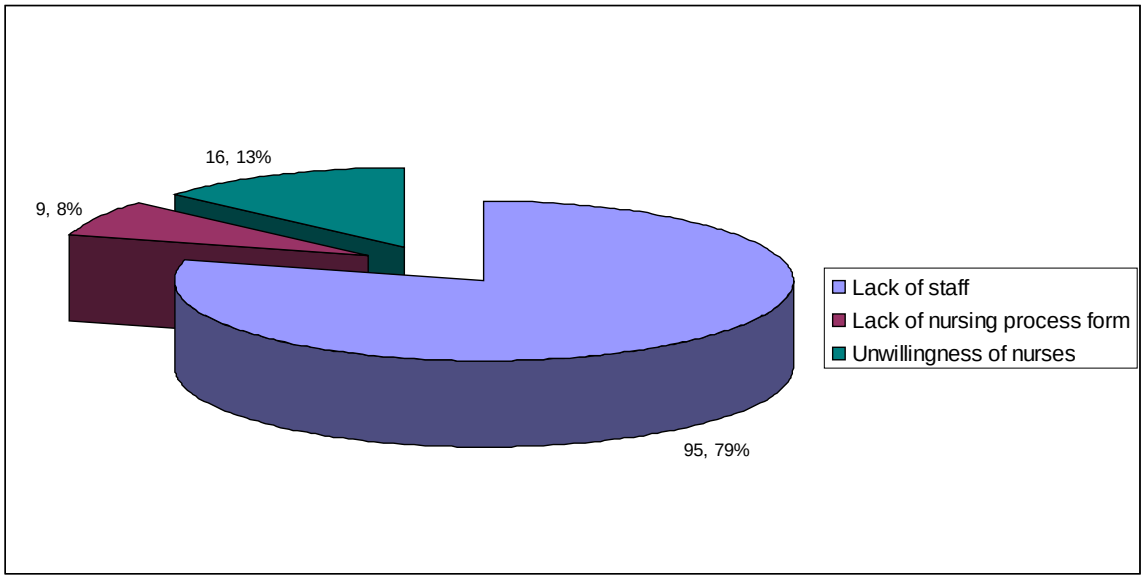

Figure 4.27 Aspects which hinder implementation of the nursing process in units (n=120)

According to figure 4.27, 95 (79%) of the respondents indicated *that lack of staff* hinders the implementation of the nursing process in the units, *unwillingness of the nurses* was indicated by 16 (13%) and *lack of nursing process forms* by 9 (8%) respondents. The major finding is congruent with the work of Habermann and Uys (2005:127) who found

that some of the difficulties experienced in implementing individualised patient care were related to unrealistic staff to patient ratios.

4.3.7 Evaluation

The questions in this section aimed at determining the knowledge and understanding of the respondents with regard to evaluation in terms of the nursing process.

4.3.7.1 Evaluation of the patient care

The respondents were required to select a statement which to them represented the evaluation off patient care.

Table 4.9 Meaning of evaluation in terms of patient care (n=120)

Evaluation	**n**	**%**
To provide comfort to the patient	25	21
To judge or to appraise the care given	94	78
To monitor and record the patient's vital signs	1	1
To provide physical exercises to the patient	-	-
Total	**120**	**100**

The majority (n=94; 78%) of the respondents correctly selected *to judge or to appraise the care given* as the intent of patient care evaluation, *to provide comfort to the patient* was indicated by 25 (21%) and *to monitor and record vital signs* by 1 (1%) of respondent. Refer table 4.9. According to Kozier et al (2008:235) and Smith et al (2004:66), to evaluate is to examine, judge or to appraise the care given. It is also a planned, ongoing, purposeful activity in which patients and health care professionals determine patients' progress towards achievement of goals.

4.3.7.2 Evaluation of the nursing activities

The respondents were required to identify the aim of evaluating nursing activities from a given list of alternatives.

Table 4.10 Aim of evaluating nursing activities (n=120)

Aim of evaluation	n	%
To assist the patient	13	11
To form opinion or judgment on which to base the next step	104	86
To assist the doctors to discharge patients	1	1
To support the physiotherapists to perform physical exercises	2	2
Total	**120**	**100**

Table 4.10 shows that the majority (n=104; 86%) of respondents selected *to form an opinion or judgment on which to base the next step* as the aim of evaluation in this case, which is the correct option. *To assist the patient* was indicated by 13 (11%) respondents. Kozier et al (2008:235) postulate that evaluation done during, or immediately after, implementing a nursing activity enables the nurse to make on the spot modifications to an intervention if it is required.

4.3.7.3 The need for patient re-assessment

The respondents were required to indicate whether they agree that re- assessment of the patient was not necessary after treatment had been given. This question was asked to determine whether the respondents understood the necessity of continuous re-assessment of patient progress in order to amend the care.

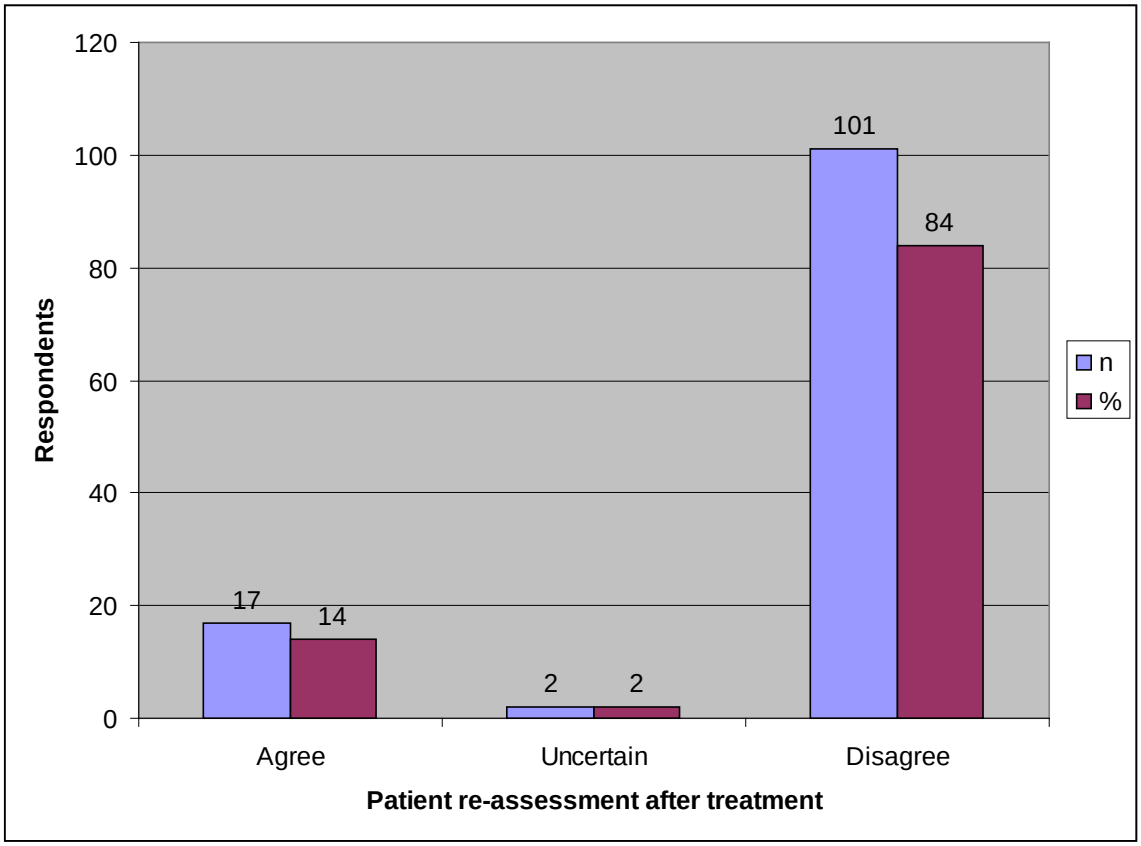

Figure 4.28 No need for patient re-assessment after treatment had been given (n=120)

From figure 4.28, it is clear that the majority (n=101; 94%) of respondents *disagreed* that re-assessment was not necessary after treatment had been given. However, 17 (14%) respondents *agreed* with this statement, which raises a concern about their understanding of the dynamics of treatment and care. Kluwer (2008:144) states that re-assessment is a necessary part of evaluation, it helps to determine whether the patient's condition is improving or not.

4.3.7.4 Evaluation and the steps of the nursing process

The respondents were required to indicate their level of agreement with the statement that evaluation of the patient could be difficult to perform if the steps of the nursing process were not followed. This question was asked to ascertain whether the respondents consider the sequence of the steps of the nursing process as relevant.

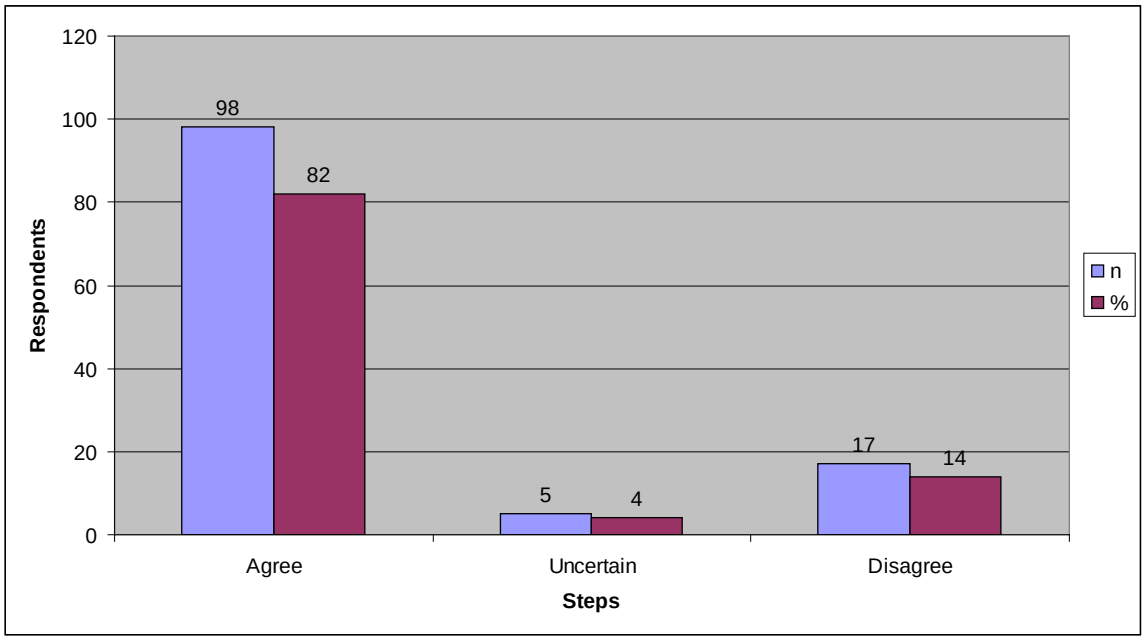

Figure 4.29 Evaluation of patient could be difficult if steps of nursing process are not followed (n=120)

From figure 4.29 it is evident that the majority (n=98; 82%) of respondents *agreed* that not following the steps of the nursing process, made evaluation of the patient's progress, difficult. Seventeen (14%) respondents *disagreed,* and 5 (4%) were *uncertain* whether following the steps of the nursing process would make a difference to assessing the patient's progress. Kozier et al (2008:236) emphasise that successful evaluation depends on the effectiveness of the steps that precedes it. There should be accurate assessment, appropriate formulation of the nursing diagnoses, sufficient planning and statement of the desired outcomes.

4.3.7.5 Inappropriate documentation hinders evaluation

The respondents were required to indicate to what extent they agree that a lack of proper documentation by colleagues hinders appropriate evaluation. This question was asked to determine whether the respondents understood the importance of clear and meaningful documentation in optimising patient care.

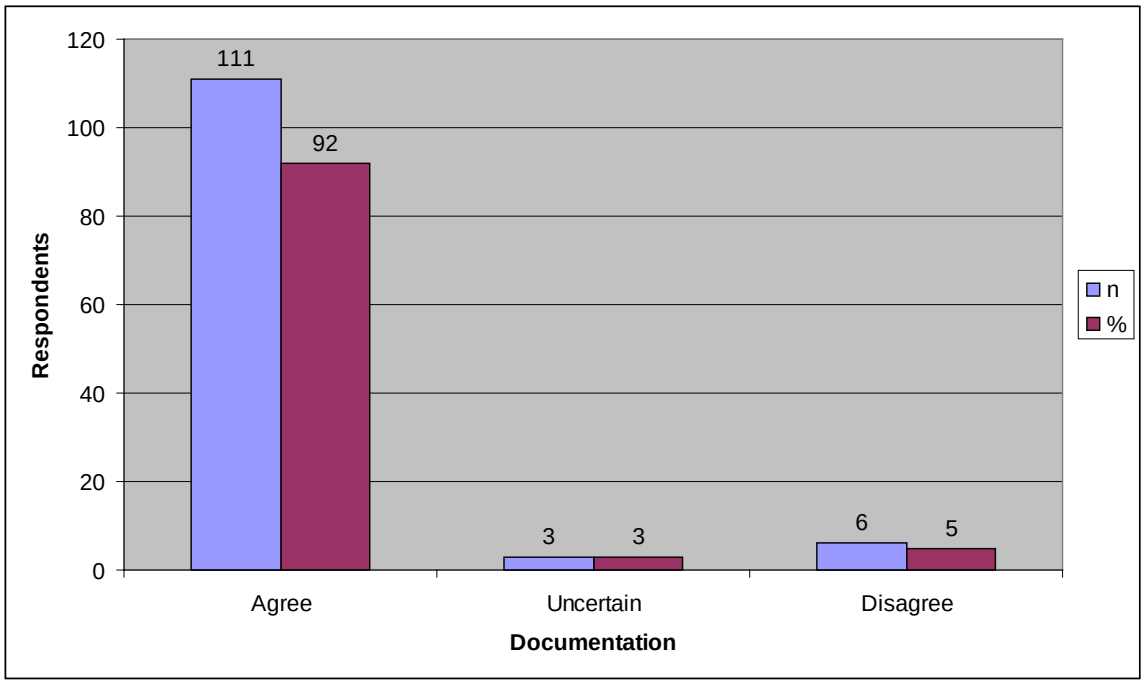

Figure 4.30 Lack of proper documentation hinders appropriate evaluation (n=120)

From figure 4.30 it is evident that 111 (92%) of the respondents *agreed* that a lack of proper documentation by colleagues hinders appropriate evaluation, 6 (5%) of the respondents *disagreed with this view*, and 3 (3%) were *uncertain*. According to Kozier et al (2008:236) and Kluwer (2008:145), any gathered information should be documented. Without documentation there would be a risk of inadequate transfer of information and an inadequate basis for evaluation.

4.3.7.6 Care evaluation and nurse leaders

The respondents were required to indicate how often care was not being evaluated by their nurse leaders. This question was asked to determine the commitment of nurse leaders towards performing evaluation.

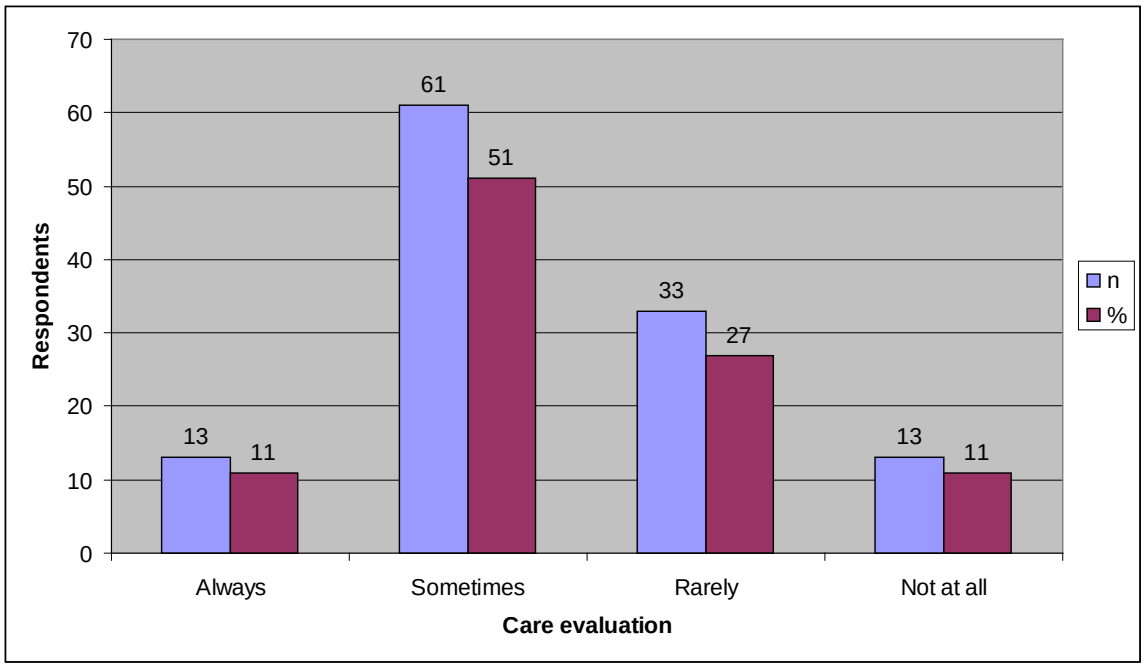

Figure 4.31 Care evaluation by nurse leaders (n=120)

Figure 4.31 contains the responses to the question of how often care was not evaluated by nurse leaders. Thirteen (11%) of the respondents indicated it was *always* the case, which implies that the leaders of these nurses never evaluated the care provided to their patients. It is disconcerting that another 61 (51%) respondents reported that their leaders *sometimes* did not evaluate the care given. Positive leadership behaviour in this regard was supported by 33 (27%) respondents who indicated that their nurse leaders *rarely* did not evaluate the care outcomes, and 13 (11%) respondents noted that their leaders always evaluated the given care by selecting the response of *not at all* to the posed question. According to Kozier et al (2008:239), evaluating the quality of nursing care is essential and it is part of professional accountability. It is therefore evident that there was a deficiency in this regard.

4.3.8 Nursing documentation

The aim of this section was to ascertain the respondents' understanding of, and skills pertaining to nursing documentation.

4.3.8.1 Definition of nursing documentation

The respondents were required to point out the correct definition of nursing documentation from a given list of four possibilities. This question was asked to determine whether the respondents understood the meaning of nursing documentation.

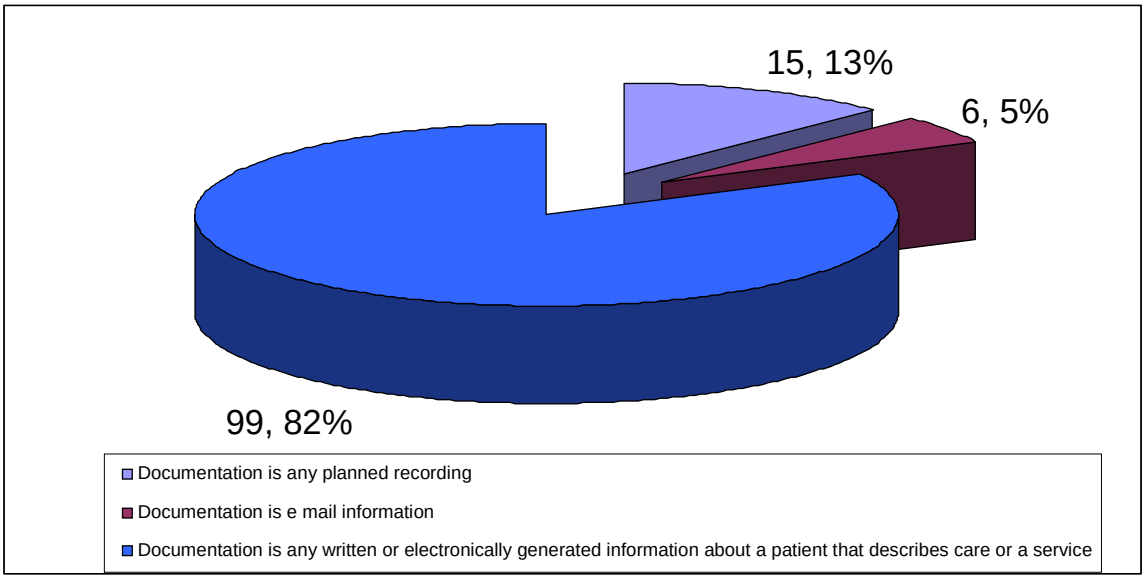

Figure 4.32 Definition of nursing documentation (n=120)

From figure 4.32 it is evident that the majority (n=99; 82%) of respondents correctly indicated that *documentation is any written or electronically generated information about a patient that describes the care or service provided,* 15 (13%) respondents noted *documentation is any planned recording* and 6 (5%) noted that *documentation is e mail information.* Kozier et al (2008:246) explains that documentation can be written or computer based, and is the process of making an entry on a patient's record, which is referred to as recording, charting or documenting in the practical field.

4.3.8.2 Content of nursing documentation

The respondents were required to select the option representing the content of nursing documentation based on the four examples contained in table 4.11.

Table 4.11 Content of the nursing documentation (n=120)

Content of nursing documentation	n	%
Patient's medical history	1	1
Assessment of the patients health status, nursing interventions carried out, the impact of the nursing interventions	113	94
Laboratory investigations	4	3
Patient discharge summary	2	2
Total	**120**	**100**

Records of a*ssessment of the patient's health status, nursing interventions carried out, and the impact of nursing interventions* were correctly indicated by 113 (94%) respondents as the content of nursing documentation. *Laboratory investigations* were selected by 4 (3%) and *patient discharge summary* by 2 (2%) respondents. According to Mallik et al (2004:18), written nursing communication is dictated by the nursing process of assessment, planning, implementation and evaluation.

4.3.8.3 Inaccurate recording

The respondents were required to indicate their level of agreement with the statement that it is better to record something inaccurately rather than to be seen as being negligent. The aim of this question was to ascertain the respondents' integrity in terms of nursing documentation. Unfortunately, the 'accuracy' of nursing records is often questioned in practice.

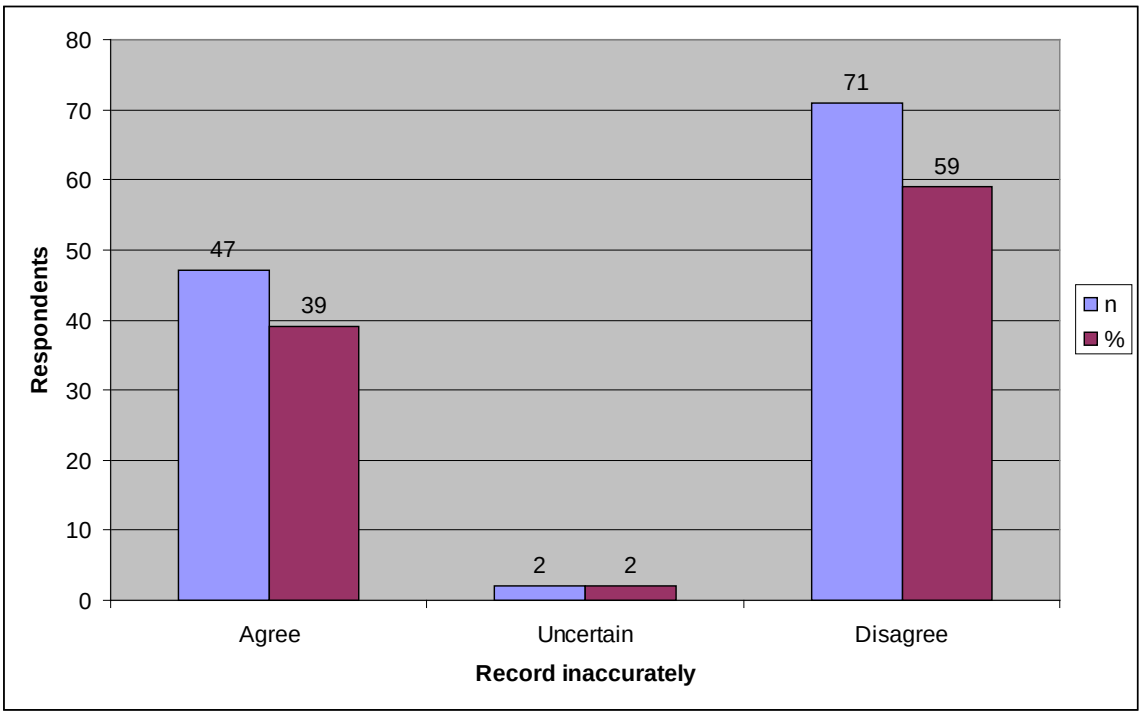

Figure 4.33 It is better to record something inaccurately than to be seen as negligent (n=120)

The responses contained in figure 4.33 are noted with concern, as only 71 (59%) respondents *disagreed* with the statement that it is better to record something inaccurately rather than being seen to be negligent for not doing a required action, or for recording an action as if it was correctly performed, while in fact this might not be so. Forty seven (39%) respondents *agreed* that inaccurate recording was acceptable in view of the question posed while 2 (2%) respondents were *uncertain*. According to Kozier et al (2008:247), the client's record is a legal document, and it is often used in courts as evidence, therefore the need for absolute honesty and accuracy is paramount. But, apart from the legal requirements, inaccurate records would be to the detriment of the patient's treatment, care and wellbeing.

4.3.8.4 Documentation of care given

The respondents were required to agree or disagree to the statement that regardless of the care given, if it is not documented then it is considered not to have been given.

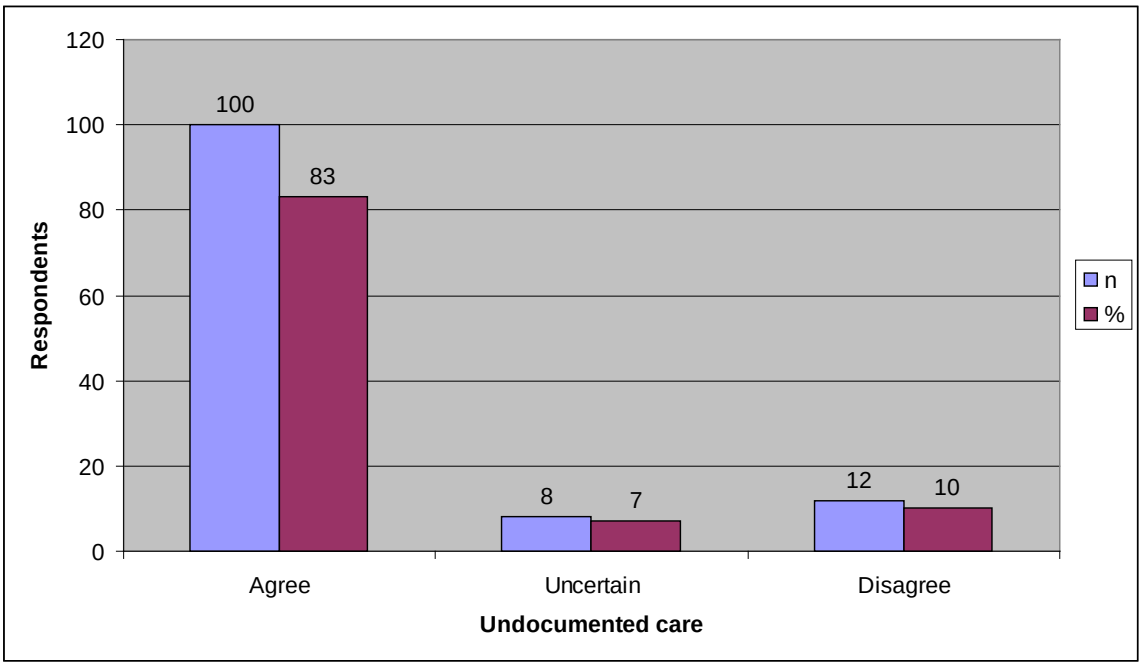

Figure 4.34 Undocumented care is regarded as not given (n=120)

The responses from figure 4.34 indicate that the majority (n=100; 83%) of the respondents *agreed* with the statement that regardless of the care given if it is not documented then it is regarded as not given. The option of *disagree* was indicated by 12 (10%) respondents and *uncertain* by 8 (7%). According to Jefferies et al (2010:113), nursing documentation is a repository of knowledge about the patient, contains verifiable evidence showing how decisions were made, and is a record of the results of those decisions. Omissions to record activities or observations would thus leave a vacuum in the care process of a patient.

4.3.8.5 Verbal communication versus written communication

The respondents were required to indicate whether nurses use verbal communication more than written communication in their interaction about pateints. This question was asked to ascertain whether nursing actions are communicated verbally, or in writing.

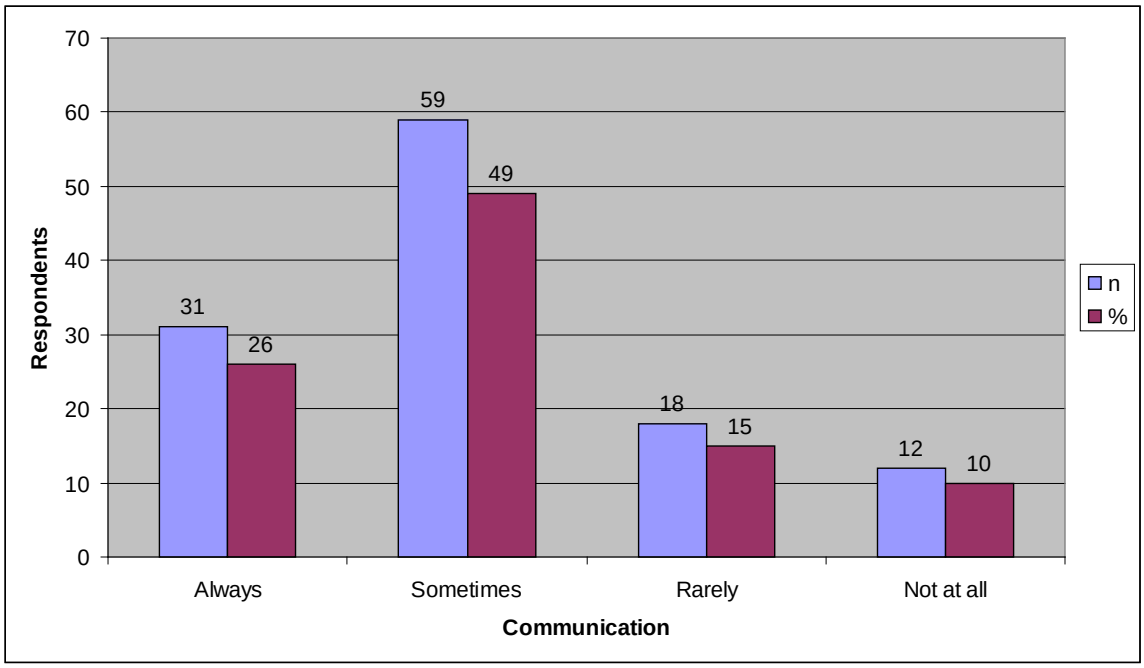

Figure 4.35 Use of verbal communication more than written communication (n=120)

The responses from figure 4.35 indicate that 31 (26%) of the respondents noted that nurses *always* use verbal communication more often than written communication during the care of their patients. Almost half (n=59; 49%) of the respondents were of the opinion that this was s*ometimes* the case, 18 (15%) indicated *rarely* and 12 (10%) respondents *not at all.* Jefferies et al (2010:113) state that, traditionally nurses communicate information about their patients verbally, more so than confirming it in writing. This has a detrimental effect on the continuity and accuracy of nursing care, as information not recorded, is easily forgotten or overseen. This is especially so in very busy wards with high patient volumes.

4.3.8.6 Effective communication requires skills, knowledge and standardised terminology

A question was asked to determine whether the respondents consider that skills, knowledge and standardised terminology contribute to effective documentation.

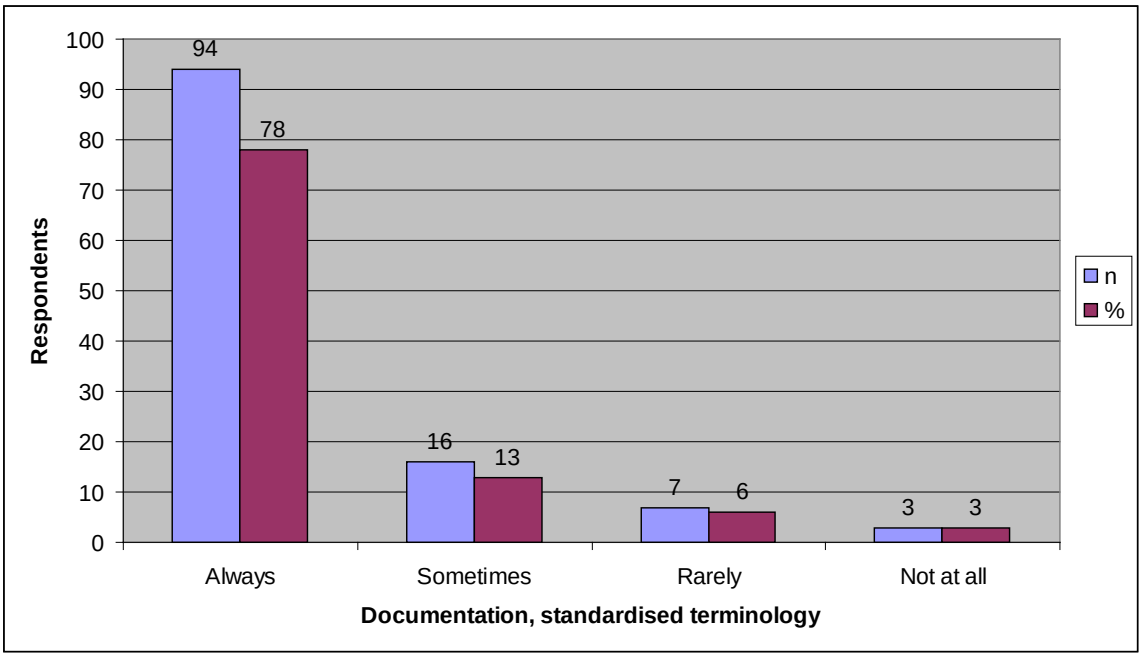

Figure 4.36 Documentation requires skill, knowledge and standardised terminology (n=120)

The responses from figure 4.36 indicate that 94 (78%) of the respondents are of the opinion that effective communication *always* require skills, knowledge and standardised terminology. Sixteen (13%) noted *sometimes*, 7 (6%) *rarely*, and *not at all* by 3 (3%) respondents. The fact that certain skills and knowledge are essential in achieving effective communication is substantiated by Saranto and Kinunen (2009:465) who state that standardised terminology is a pre-requisite for consistent communication.

4.3.9 Summary questions

The nursing process consists of a number of steps, which require different skills from the practitioner implementing this scientific method of nursing. The aim of this section was to determine which of the nursing process steps/activities were experienced as the most difficult to implement, by the respondents.

4.3.9.1 Difficulty in applying the steps of the nursing process

In identifying the most difficult step/activity of the nursing process to implement, only 62 respondents reacted to this question.

Table 4.12 Most difficult step of the nursing process to implement (n=62)

Difficult activity to implement	**n**	**%**
Assessment	19	31
Nursing diagnoses	30	48
Planning	13	21
Evaluation	-	-
Total	**62**	**100**

Data displayed in table 4.12 indicates that 30 (48%) of the 62 respondents who responded to this question, felt that *nursing diagnoses* was the most difficult activity to implement, *assessment* was indicated by 19 (31%), and *planning* by 13 (21%), no respondents identified *evaluation* as the most difficult activity of the nursing process. However, in response to the request for recommendations to improve patient care through the utilisation of the nursing process, 58 (94%) respondents requested to be assisted with *goal formulation.* It is acknowledged by Lopes, Higa, Reis, Oliveira and Christoforo (2010:118) that one of the barriers to the successful development of the nursing process for an individual patient, is the formulation of a nursing diagnosis.

4.4 SUMMARY

This chapter discussed the data analysis and presentation of the findings. Analysis and presentation of the findings included data pertaining to biographical information, the nursing process, assessment, nursing diagnoses, planning, implementation, evaluation, nursing documentation, and summary questions.

In the next chapter the conclusions and recommendations will be discussed.

CHAPTER 5

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter provides a brief overview of this study which focused on the nursing process as a way of improving patient care. The study was executed by means of a quantitative approach utilising an explorative and descriptive design. The population consisted of nurses working in a referral hospital, and data was collected by means of a survey utilising a self-developed questionnaire. The study was conducted to determine the nurses' knowledge and skills in applying the nursing process, and to allow for the subsequent development of an in-service training programme. A set of questions was developed with the purpose of assessing the knowledge and skills of nurses in implementing the nursing process. The conclusions were considered and recommendations are made by which nurses could be supported to increase their knowledge of the nursing process, and improve the quality of its implementation. The components that are dealt with in this chapter are the findings, conclusions, recommendations, limitations and areas for future research.

5.2 THE PURPOSE AND OBJECTIVES OF THE STUDY

This study was conducted to determine the nurses' knowledge and skills in applying the nursing process, where after an in-service training programme would be developed to enhance the application of the nursing process in the specific hospital.

The study objectives were to:

- Ascertain the nursing staff's understanding of the benefits and value of implementing the nursing process.
- Determine to what extend the registered nurses are able to develop and implement nursing care plans.

- Determine the registered nurses' understanding of, and views about nursing care documentation.
- Develop an in-service training programme for nurses on the implementation of the nursing process and nursing care plans ascertain.

5.3 FINDINGS

The findings which were obtained from the data analysis in chapter four are presented under the main sections of the questionnaire, namely the biographic information, the nursing process, assessment, nursing diagnosis, planning, implementation, evaluation, nursing documentation, and summary questions.

5.3.1 Biographical information

Most of the respondents fell in the age groups of 31-40 years (n=42; 35%), and 41-50 years (n=36; 30%). Eighteen younger respondents (20-30 years) represented 15 percent of the sample, and most recently completed their training, it can be expected that they might have the most up to date knowledge about the nursing process.

All the respondents were nurses who were working in the clinical wards. One hundred and two (85%) respondents provided bedside care while 18 (15%) served as nurse leaders. This indicates that the majority of the respondents were in the position to apply the nursing process and thereby develop nursing care plans, although the nurse leaders would also be expected to be proficient in the use of the nursing process in order to be able to supervise their colleagues.

With regard to the years of experience in their current position, the respondents were divided into three roughly equal groups, 29 (24%) had 1-5 years experience, 35 (29%), 6-10 years and 30 (25%) of the respondents had been working in their current position for more than 16 years. All the respondents had at least a four year diploma in nursing.

5.3.2 Nursing process

General questions related to the nursing process, produced the following results:

The majority of the respondents indicated to have had **received training** on the nursing process (n=117; 97%). It was only two of them (n=2; 2%) who indicated not to have had training, and one of them did not answer the question. The **type of training** received on the nursing process was provided in their basic training (n=95; 79%). The remaining respondents indicated to have had related training through other methods such as on the job (n=10; 8%), informal discussions (n=10; 8%) and other methods (n=5; 5%) which can all be considered as in-service training. Most of the respondents indicated to **lack confidence in implementing the nursing process.** The option of "*I understood the nursing process but found it difficult to implement*" was reported by 64 (53%). Some of them were unsure or found it confusing (n=4; 4%).

The **purpose of using the nursing process** was indicated correctly by most of the respondents (n=112, 94%), which was to keep track of patients' progress. There were some difficulties in knowing the **steps of the nursing process**. Just less than 50% (n=55) of the respondents indicated the nursing process have five steps which was correct. More than 50% (n=63) indicated the nursing process to have four steps, or three steps by 2 (2%).

The reported lack of confidence in using the nursing process and the apparent lack of understanding the steps of the nursing process suggest that a substantial number of the respondents lacked the knowledge and skills pertaining to the nursing process despite the relatively high number of respondents (n=117; 97%) who received training on the topic. Only 52 (43%) respondents reported to be able to implement the nursing process with confidence after the training. This lack of congruence between the training received and levels of confidence may imply that nurses had inadequate theoretical education on the nursing process, but lacked supervised clinical practice in using it.

Most of the respondents (n=95; 79%) indicated that the parties involved in the development of the nursing care plan should be *the nurse and the patient*. The remaining respondents indicated that the care plan should be developed by the *nurse*

alone (n=25; 21%). The latter finding suggests that the respondents do not understand or recognise the value of involving patients in the planning of their care.

The general questions about the nursing process indicated that 117 (97%) of the respondents had *training on the nursing process*. However, the training appeared to be insufficient or were not reinforced in practice, thus confidence in implementing the nursing process was not acquired.

The findings pertaining to the different steps of the nursing process will follow.

5.3.3 Assessment

Two-thirds of the respondents indicated that assessment is the first phase of the nursing process (n=82; 68%). This finding is substantiated by Kozier et al (2008:175) who state that assessment is considered the first phase of the nursing process but it is also continuously carried out during the implementation and the evaluation phases. Thirty five (29%) respondents noted that assessment generates the data for a specific patient upon which to base the anticipated nursing care.

The majority (n=96; 80%) of respondents correctly identified *'assessing and interpreting observations'* as the main activity of the assessment phase. Kluwer (2008:24) notes that a complete assessment includes the nursing history, physical assessment, review of laboratory test results, and review of other health information. Other responses offered were, *taking and recording vital signs* (n=6; 5%), and *taking patient medical history* (n=14; 13%). These responses are also correct as they are associated with the main activity of assessing and interpretation of observations. Administering medication (n=2; 2%) is not correct in terms of the assessment phase. These findings indicate that the majority of respondents knew what the assessment phase of the nursing process entails.

In response to the statement that **nurses do not do patient assessment but depend on the doctor** to do so, 81 (67%) respondents correctly *disagreed.* Respondents who *agreed* and those who were *uncertain* were 28 (23%) and 11 (9%) respectively. This implies that 39 (32%) of the respondents did not understand their responsibility in the

assessment phase of the nursing process, which may suggest that they did not perform any nursing assessment activities in actual practice.

Only 43 (36%) of the respondents correctly indicated that **the history of a patient being admitted for elective surgery**, should *always* be taken. An equal number (n=43; 36%) *sometimes* did so, 27 (23%) *rarely,* and 7 (6%) never took their patients' history. The necessity of taking a history from a patient when being admitted for elective surgery is emphasised by Murray and Atkinson (2000:52-52) in that the registered nurse should initiate the pre-operative assessment though history taking before surgery to facilitate a critical pathway which will enable the planning of a discharge summary. These findings suggest that nurses do not routinely take and record the history of patients admitted for elective surgery.

5.3.4 Nursing diagnoses

The majority of the respondents were able to select the correct example of a medical diagnosis which was *Pulmonary tuberculosis* (n=107; 89%). The rest of the respondents indicated the options of *needs suction because of secretions* (n=6; 5%), high *risk of aspirations because of oral secretions* (n=4; 3%), and *vomiting related to complications of human immune deficiency syndrome* (n=3; 3%).

A medical diagnosis is usually associated with a disease, as doctors are licensed to diagnose and treat medical diseases or conditions (Kluwer 2008:77). The findings suggests that 13 (11%) of the respondents were not able to distinguish between a medical and nursing diagnoses.

Similar to the previous question, the request for the example of a nursing diagnosis were correctly indicated by 84 (70%) as *the risk of bed sores related to immobility*. Kluwer (2008:77) states that a nursing diagnosis describes a response to a disease or a condition of the disease, but not the disease itself. Other responses given were *raised temperature* (n=30, 25%) *impaired wound healing* (n=5; 4%), and *facial grimacing* (n=1; 1%). These other options are assessment data and not strictly speaking, a nursing diagnoses, mainly because they indicate a symptom and are not associated with the reason for its existence. These findings suggest that there is a knowledge deficit in

differentiating between the nursing diagnoses and medical diagnoses, as well as the skill of formulating a correct nursing diagnosis.

The greater majority of the respondents *agreed* to the statement that **high patient numbers prevent nurses from formulating nursing diagnoses** (n=96; 80%). Five (4%) respondents were *uncertain*, and 19 (16%) *disagreed.* These findings suggest that most of the nurses find it difficult, or do not have the time, to formulate nursing diagnoses when there are a large number of patients to be taken care of.

Most of the respondents *agreed* that the nursing diagnoses is documented to provide a communication link to all health care professionals regarding the patient's health status (n=113; 94%). Smith, et al (2004:28) states that the nursing diagnosis provides a written communication to all health care workers regarding the client's status. Four (3%) respondents *disagreed* and 3 (3%) were *uncertain* about the relationship between the nursing diagnosis as a means of communication.

The intervals for evaluating the nursing diagnosis, to come up with a revised new diagnosis was correctly answered by just more than half (n=71; 59%) of the respondents which was *on a daily basis,* 47 (39%) respondents were of the opinion that it should be done *every six hours*. Only one respondent felt *every third day* (n=1; 1%), or *once a week* (n=1; 1%) respectively, was sufficient. The correct answer is based on the illness and the condition of the patient and the ward setting, in which the respondents are currently working. Overall findings on the nursing diagnoses suggest a knowledge deficiency and probable difficulty in formulating nursing diagnoses.

5.3.5 Planning

The major components of planning were correctly indicated by the majority (n=108; 89%) of the respondents which were *setting goals, prioritising, and documenting evidence-based plans*. Kozier et al (2008:211) note that the components of planning includes, prioritising problems or diagnosis, selecting nursing interventions, formulating goals or desired outcomes, and writing nursing interventions. Incorrect responses were provided by 12 (11%) respondents. Almost all the respondents were able to provide the correct definition of planning (n=119; 99%) which was a *deliberative, systematic phase of the nursing process that involves decision-making and problem-solving.* It was only

one respondent who had a different opinion that planning was *collecting and recording all of the patient's information* (n=1; 1%).

In understanding the nursing care plans the majority of the respondents (n=108; 90%) correctly indicated that *it requires systematic follow up of the nursing process and review of the documentation.* Seven (6%) of the respondents indicated that nursing care plans depended entirely on the observation charts, 4 (3%) said it *can be used in conjunction with the kardex system*, and 1 (1%) was of the opinion that nursing care plans *can be implemented effectively without documenting the findings*.

The majority of respondents (n=119; 96%) *agreed* that standardised care plans (such as for head injury, diabetic or coma patients) could help improve the quality of nursing care. Five (4%) respondents *disagreed* which is incorrect because standardised care plans facilitate guidance which is required to enhance the quality of nursing care. According to McMahon (2010:1), all standards of practice (such as standardised nursing care plans), provide a guide to judge the knowledge, skills, judgments and attitudes that are needed to practice.

The statement that nursing care plans were always difficult to implement due to time constraints was *supported* by 85 (71%) of the respondents. Eleven (9%) were *uncertain,* and 24 (20%) *disagreed* that time constraints had an effect on the implementation of nursing care plans. From the findings it can be deduced that respondents either think implementing nursing care plans uses more time than other systems of organising and documenting care, or they do not have the time to do so due to high patient volumes. The available time within wards or units are affected by staffing levels and workload.

The majority of respondents (n=114; 94%) correctly *agreed* that nursing care plans are part of the nursing process and serve as a road map that guides all the nursing staff in the care of their patients. Three (3%) respondents were *uncertain* and another 3 (3%) *disagreed* about the purpose of nursing care plans. The latter two options are incorrect because following the correct sequence of steps in the nursing process, serves as a guide for future actions and thus assists the nurse in scientifically taking care of his/her patients.

Almost all of the respondents (n=119; 99%) correctly *agreed* that every patient is unique and will need an individualised care plan. There was only 1 (1%) respondent who was *uncertain* about the need for individualised care plans.

Only 41 (34%) respondents indicated that they *always* hand over care plans during shift changes, 50 (42%) *sometimes* did so, 22 (18%) *rarely,* and 7 (6%) *not at all*. These findings suggest that the respondents were not routinely handing over nursing care plans during shift changes, which poses the question as to how continuity of care is facilitated?

When there were many patients in the ward, 68 (57%) respondents *sometimes* provide nursing care without nursing care plans, 32 (27%) *always* did so, 11 (9%) *rarely*, and 9 (7%) *not at all*. The findings suggest that care plans were not used when there were many patients in the wards.

Only 27 (23%) respondents *always* discussed the care plan with their patient, which is the desired and acceptable practice, 58 (48%) respondents s*ometimes* did so. Respondents who *rarely* discussed their patients' care plans with them, or *not at all,* numbered 23 (19%) and 12 (10%) respectively. Kluwer (2008:96) states that discussing the care plan with the patient and keeping them informed about their progress and needed changes could be mutually beneficial as the patient would be well informed, and can commit to the treatment or care regime.

5.3.6 Implementation

Just more than half of the respondents (n=62; 52%) acknowledged that *monitoring and recording vital signs of a patient including prioritising nursing actions and documenting plans* are part of the implementation phase. Smith et al (2004:23) state that implementation deals with prioritising nursing actions or interventions that need to be performed to accomplish a specified goals. The other two options were also correct namely *monitoring and recording the vital signs* (n=10; 8%), and *prioritising nursing actions and documenting plans* (n=41; 34%). The options of *bathing patients* (n=6; 5%), and *providing comfort post operatively* (n=1; 1%) were not correct.

The majority (n=111; 93%) of respondents were of the opinion that implementation of the nursing process is based on *accurate and complete nursing assessment, analysis, nursing diagnoses and strategies to achieve goals.*

More than half of the respondents (n=71; 59%) *agreed* to the statement that nurse leader's involvement in non-nursing administrative duties (such as going to the pharmacy and organising repairs), contribute to poor implementation of the nursing process. Six (5%) respondents were *uncertain,* and 43 (36%) *disagreed* with the statement. The findings suggest that the presence of nurse leaders may result in better implementation of the nursing process. According to Kozier et al (2008:235) a nurse who is responsible for patient care must ensure that nursing activities are implemented according to the care plan.

Just less than half of the respondents (n=59; 49%) *agreed* that patients do not make satisfactory progress when care plans are not implemented. Forty seven (39%) *disagreed* and 14 (12%) were *uncertain.* Smith et al (2004:35) and Kluwer (2008:120) state that patient care plans are an essential part of providing nursing care and without them, quality and consistency of patient care may not be obtained.

Sixty three (53%) of the respondents confirmed that in actual practice, implementation of the nursing process is hindered by a lack of knowledge and practical skills of the nursing staff. Forty one (34%) respondents *disagreed* and 16 (13%) were *uncertain* about this. According to Kozier et al (2008:233), to implement the care plan successfully, the nurse needs cognitive, interpersonal, and technical skills.

The majority of respondents (n=94; 79%), indicated that a *lack of staff hinders the implementation of individualised patient care based on the principals of the nursing process* in their units. Nine (6%) respondents gave a *lack of nursing process forms* as the reason for not providing individualised patient care, whereas, 16 (13%) noted the *unwillingness of nurses* as an inhibitating factor contributing to the implementation of the nursing process. Unwillingness of nurses may be due to a lack of knowledge and confidence in doing the practical work.

5.3.7 Evaluation

The majority of the respondents (n=94; 78%) accepted that to evaluate is *to judge or to appraise.* Kozier et al (2008:235) state that to evaluate is to examine and judge or, to appraise the care given. Twenty five (21%) respondents were of the opinion that evaluation is to *provide comfort to the patient,* and 1 (1%) felt that *monitoring and recording the patient's vital signs* was evaluation, both the latter responses were incorrect.

The majority (n=104; 87%) of respondents acknowledged that the importance of evaluating nursing activities is to *form an opinion or judgment on which to base the next step.* Thirteen (11%) respondents were of the opinion that nursing activities had to be evaluated *to assist the patient*, 1 (1%) felt it was done to *assist doctors to discharge patients* and 2 (2%), to *support physiotherapists to perform physical exercises*. These options were not accepted.

The majority (n=101; 84%) of respondents *disagreed* that re-assessment of the patient is not necessary if treatment had been given. Seventeen (14%) of respondents *agreed* that re-assessment was not necessary after treatment. The question contained a double negative which may have caused some confusion. According to Kluwer (2008:144), patient re-assessment is a necessary part of evaluation.

The majority of the respondents (n=98; 82%) correctly *agreed* that evaluation of the patient could be difficult if the steps of the nursing process were not followed. According to Kozier et al (2008:236), successful evaluation depends on the effectiveness of the steps that precedes it. Five (4%) respondents were *uncertain* and 17 (14%) *disagreed* with this statement. These are incorrect responses as it had been stated that previous steps of the nursing process usually guide the following steps.

The greater majority of the respondents (n=111; 93%) correctly *agreed* that lack of proper documentation by colleagues hinder proper evaluation. Three (3%) respondents were *uncertain* and 6 (4%) *disagreed* that lack of proper documentation hindered evaluation. Kozier et al (2008:236) and Kluwer (2008:145) emphasise that any gathered information should be documented.

In response to the statement of how often care was not evaluated by nurse leaders only 13 (11%) respondents indicated *always.* Other responses were *sometimes* 61 (51%), *rarely* 33 (27%), and *not at all* 13 (11%). The findings suggest that nurse leaders do not always evaluate patient care. According to Kozier et al (2008:239), evaluating the quality of nursing care is an essential part of professional accountability. This question could have been misinterpreted due to the use of a negative in its formulation.

5.3.8 Nursing documentation

The majority of the respondents (n=99; 83%) acknowledged that *documentation is any written or electronically generated information about a patient that describes the care or service.* Fifteen (13%) respondents viewed *documentation as any planned recording,* and 6 (5%) indicated *documentation is e-mail information,* both the last two responses were not completely correct. According to Kozier et al (2008:246), 'documentation is written or computer based, and is the process of making an entry on a patient's record'.

The content of nursing documentation was correctly indicated by the majority of the respondents (n=113; 94%) as the *assessment of the patient's health status, nursing interventions carried out, the impact of the nursing interventions and the patient's outcome.* Four (3%) respondents were of the opinion that *laboratory investigations* are part of nursing documentation, and 1 (1%) indicated *patients' medical history,* both these responses were incorrect. According to Walsh (2002:12), "the content of nursing records includes, data collected, identification of patient problems, plan of care, interventions, and results of interventions and evaluation of the outcome criteria".

Just more than third (n=47; 39%) of the respondents stated that *is better to record something inaccurately rather than to be seen to be negligent*. According to Kozier et al (2008:247), "the client's record is a legal document and it is admissible to courts". However, 71 (59%) *disagreed* with this statement, 2 (2%) of the respondents were *uncertain.*

The greater majority of the respondents (n=100; 83%) agreed that, regardless of the care provided, if it is not documented, then it is regarded as not given. Twelve (10%) respondents *disagreed*, and 8 (7%) were *uncertain.*

Thirty one (26%) respondents indicated that nurses *always* use verbal communication more than written communication during the care of their patients, 59 (49%) indicated that it was *sometimes* the case, 18 (15%) indicated *rarely*, and 12 (10%) *not at all*. The findings suggest that nurses often use verbal rather than written communication when reporting about their patients.

Ninety four (78%) of the respondents were of the opinion that effective documentation *always* requires skill, knowledge and standardised terminology, 16 (13%) indicated it was *sometimes* the case, 7 (6%) *rarely*, and 3 (3%) *not at all.*

5.3.9 Summary questions

The respondents were required to identify activities of the nursing process which they found difficult to implement.

Of the 62 respondents who reacted to these questions, 30 (25%) commented that formulating a nursing diagnosis was the most difficult activity for them. Assessment was reported to be difficult by 19 (16%) respondents and planning by 13 (11%). In response to the request for recommendations to improve patient care through the utilisation of the nursing process in their units, 58 (48%) respondents requested to be assisted with goal formulation.

The findings suggest that the respondents experience a number of difficulties or challenges when attempting to apply the nursing process in the care of their patients.

5.4 GENERAL CONCLUSIONS

The findings of the study can be summarised as follows:

- Most of the 120 respondents were between the ages of 31 and 50 years, serving in their current positions from 1 to 16 and more years, and the majority provided bedside nursing care.
- Most of the respondents reported having received training in the nursing process, mostly in the form of in-service training, but they were not sure of the steps of the

nursing process and reported a lack of confidence in implementing this scientific process.

- The majority of respondents identified ‘assessment and interpretation’ as the purpose of the assessment phase of the nursing process, however, a third of the respondents expected the doctors to do the assessment, and a third reported not taking the history of patients being admitted for elective surgery
- Most of the respondents were able to distinguish between examples of medical and nursing diagnoses.
- The majority of respondents felt that high patient numbers are an obstacle to formulating nursing diagnoses.
- The majority of respondents were positive about the use of documentation as it is a mechanism of providing a communication link to other health professionals.
- More than half of the respondents indicate that patients had to be re-assessed on a daily basis to revise the nursing diagnosis.
- A majority of the respondents were able to identify the components and definition of planning.
- Most of the respondents had the opinion that standardised care plans are useful.
- Most of the respondents expressed the opinion that time constraints are an obstacle in formulating nursing diagnoses.
- The majority of the respondents noted that the nursing process serves as a road map that guides all nursing staff in the care of the patients, however, the majority did not routinely hand over care plans during shift changes, nor discussed care plans with the specific patients.
- More than half of the respondents were able to indicate the correct activities of the implementation process.
- Most of the respondents were of the opinion that nurse leaders’ involvement with non-nursing activities contributes to poor implementation of the nursing process.
- Less than half of the respondents had indicated that patients do not make satisfactory progress when care plans are not implemented.
- Most of the respondents agreed that a lack of knowledge and practical skills are a hindrance in implementing the nursing process, so was the lack of sufficient staff.
- The majority of respondents were able to identify the correct definition of evaluation and the importance of evaluation.

- The majority of the respondents indicated re-assessment of a patient after treatment was not necessary.
- Most of the respondents indicated that the sequence of the nursing process steps and the documentation thereof were important for evaluation purposes.
- The majority of the respondents were able to identify the correct definition and the content of nursing documentation.
- The majority of the respondents acknowledged the importance of nursing documentation, however, the majority of respondents noted that nurses rather use verbal than written communication in relation to patient care.
- The majority of the respondents indicated having difficulty in implementing the nursing process.

5.5 RECOMMENDATIONS

From the foregoing conclusions the following recommendations are made that should enable nurses at this particular hospital to better comprehend and apply the nursing process and nursing care plans.

Table 5.1 contains a summary of the broad findings and the proposed recommendations for dealing with the identified limitations. An in-service training programme is recommended, identifying what should be done, by whom, in what mode and the frequency of interactions.

The last column of table 5.1, contains the frequency of actions. A basic five-day workshop is planned to initiate and implement a focused training session on the nursing process, followed by subsequent regular training sessions. This information will not be repeated for each of the deficiencies, as it may create the impression of repeated workshops.

Table 5.1 Recommendations for enhancing skills to apply the nursing process

Phases of the nursing process and limitation	What should be done	Responsible person	Type or format of training	Frequency
Assessment • Lack of skills in practical assessment	Enhance knowledge and skills for history taking and performing physical patient assessment	Researcher with support of nurse tutors from School of Nursing	Lectures, discussions and demonstrations	Organise a five-day workshop, during which a new group of 40 nurses will receive theory presentation on all the steps of the nursing process on a daily basis Thus, involving 200 nurses. Thereafter practical physical patient assessment will be practiced under supervision by the researcher and nurse tutors in the wards on a weekly basis. Subsequently, and in addition, one-hour in-service training sessions will be held every Tuesday for one month, during which case studies from the major admitting departments (pediatric, medical, general

Phases of the nursing process and limitation	What should be done	Responsible person	Type or format of training	Frequency
				surgery and obstetric and gynaecology), will be presented by nurses from the respective departments.
Nursing diagnosis • Difficulty in formulating nursing diagnosis	Educate on how to formulate nursing diagnoses	Researcher with support of nurse tutors from the School of Nursing	Small group discussions in scenario testing including clinical practice application	Workshop and training sessions as indicated above. Practical application of formulating the nursing diagnosis.
Planning • Lack of planning skills	Ensure accurate planning by explaining the planning process and practicing planning activities Draw up, or emphasise the utilisation of existing patient care standards and criteria	Researcher and nurse mentors who are the clinical instructors for the nurse students.	Lectures and discussions based on case studies including clinical practice Group work on the application of standards and criteria	Workshop and training sessions as indicated above. Practical application of the planning process.
Implementation • Lack of knowledge and practical skills in implementation	Enhance organising and implementation skills by explaining the organising process and correlating it with the planning phase	Researcher and clinical mentors	Simulation of case studies, and thereafter skills testing in the clinical practice	Workshop and training sessions as indicated above. Practical application of the implementation process.

Phases of the nursing process and limitation	What should be done	Responsible person	Type or format of training	Frequency
Evaluation • Limitation in understanding the purpose of evaluation and patient re-assessment	Enforce the importance of evaluation; utilise standards and criteria upon which to base assessment and evaluation. Explain the importance and frequency of re-assessing patients, as well as the legal and practical value of proper and accurate documentation Audit patient care	Nurse managers	Lectures and discussions in clinical practice including video presentation of the nursing process.	Workshop and training sessions as indicated above. Practical application of evaluation and patient re-assessment.
Nursing documentation • Disregard for ethical norms in documenting • Lack of skills and diligence in documenting	Reinforce the ethical and professional responsibility and accountability of nurses in the conduct of their professional practice Ensure honest, accurate and complete documentation	Nurse managers	Clinical practice, review patient records and institute audit committees. Implement audit re-commendations	Daily follow up and monthly audit of patient care and records.

Phases of the nursing process and limitation	What should be done	Responsible person	Type or format of training	Frequency
	Improve on audit results			
Nursing process • Limited knowledge related to the concepts and essence of the nursing process	Improve knowledge and skills pertaining to the nursing process	Researcher with support of nurse tutors from School of Nursing	In-service training programme	Workshop and training sessions as indicated above. With specific focus on the scientific evidence and value of the nursing process.
High patient numbers • Heavy work load due to high patient volumes	Motivate for an increase in staff numbers to allow for a more reasonable nurse-patient ratio Alternatively, motivate for overtime allowances for nurses to enable working additional hours.	Researcher and hospital management.	Discuss situation with members of the hospital management, disseminate research findings, and strongly substantiate motivation.	Seek government support based on government funding policy.

5.6 LIMITATIONS OF THE STUDY

This study was only done in one hospital therefore the results can only be applied to this particular hospital. Involvement of more than one hospital would have been useful in gaining a more comprehensive picture.

The formulation of questions 38 and 41 were not clear, which might have caused some uncertainty for the respondents resulting in questionable data.

Questions 11 and 30 had more than one correct answer, which limits the validity of conclusions from these items.

The acquired data was reported on, not observed in practice. Therefore one can not be sure how much of what is reported by respondents is what they actually do in practice.

5.7 RECOMMENDATIONS FOR FURTHER RESEARCH

In view of the findings of this study, the following recommendations for further research are suggested:

- That a study of this nature be done involving two or more hospitals.
- A follow-up study to be done at this particular hospital a year from the implementation of the recommendations, in order to determine what changes have been effected in relation to knowledge levels about the nursing process and reported practices in relation to nursing care plans.
- A study in which prevalence and quality of nursing care plan use is assessed. This would involve calculating the number of nursing care plans used in proportion to the admitted patients, and collecting and examining all the nursing care plans in a particular setting. A multi-center study could provide valuable information.

5.8 CONCLUSION

A quantitative study with an exploratory, descriptive and contextual design was conducted on the nursing process as a means of improving patient care. Systematic random sampling whereby every second element in the total nursing staff list was chosen systematically to select 120 nurses from the duty roster who had more than three years work experience in a particular hospital. The nurses were requested to complete a questionnaire to asses their understanding and utilisation of the nursing process, nursing care plans and nursing documentation.

A response rate of 100% was acquired. Uncertainties and difficulties in understanding and implementing the steps of the nursing process were expressed. Major problems focused on the level of understanding of the nursing process particularly on formulating the nursing diagnoses and goals, the need for evaluation and re-assessment of patients, and the effect of high patient loads and limited time on the implementation of the nursing process.

The research findings indicated that most of the respondents had inadequate knowledge of the nursing process and they may also lack practical skills. It is therefore recommended that in-service training on the nursing process and the implementation thereof be done to improve the quality of nursing care. This should be combined with supportive supervision by qualified nurses. Respondents noted that lack of staff and heavy workload may interfere with the use of nursing care plans. These are challenging problems in a resource-limited environment, and have long-term policy implications.

The objectives of the study were met in that the respondents' understanding of the nursing process and its value was assessed, the extent to which they were comfortable and skilled in developing and implementing nursing care plans was determined and their views about documentation were ascertained. The findings enabled a better understanding of the limitations nurses experience in the implementation of the nursing process, which will allow for remedial action to support and enable the nurses working in this specific hospital. Recommendations were made for a specific training programme focused on all facets of the nursing process. Hopefully, implementation of this training programme will build the knowledge and confidence of nurses in applying the nursing

process which will be to the advantage of the patients as the quality of patient care should improve.

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Annexure 1

Letter requesting permission to conduct research study

Annexure 2

Letter requesting ethical clearance to conduct research study

Annexure 3

Letter of approval from KCMC Hospital

Annexure 4

Research Ethical Clearance Certificate

Annexure 5

Structured questionnaire

Annexure 6

Consent form for respondents

KCMC Hospital
PO Box 3010
Moshi Tanzania

Executive Director
KCMC Hospital
PO Box 3010
Moshi Tanzania

Dear Sir

RE: REQUEST TO CONDUCT RESEARCH AT KCMC HOSPITAL: NURSING PROCESS AS A MEANS OF IMPTOVING PATIENT CARE

I am nurse with Bachelor of Science in nursing currently undertaking a Masters Degree at the University of South Africa (UNISA).

As a fulfillment to this course I am required to submit a research dissertation.

The research topic is: NURSING PROCESS AS A MEANS OF IMPROVING PATIENT CARE.

The purpose of this study is to describe the nursing process, nursing care planning, and to find out the knowledge limitations of the nursing staff, in implementing the nursing process, nursing care planning, and documentation of patient care.

The study participants are the nurses who are providing bedside nursing care. The direct benefit of this study is the hospital. The findings will help to devise mechanisms of improving the patient care through in service training programmes.

I trust this request will receive your favourable consideration.

Thank you.

Redempta Mamseri

Redempta Alex Mamseri
KCMC Hospital
P.O. Box 3010
Moshi
Tanzania

1 September 2010

Chairperson
Ethical Clearance Committee
KCMC Hospital/KCM College
P.O. Box 2240
Moshi
Tanzania

Dear Sir,

Re: Request for Ethical Clearance

I am a nurse working in the Nursing Administration.

Currently I am a student at University of South Africa undertaking MA (Health Studies) Research by dissertation.
As a requirement for this study I have to do a research. **The research topic is: Nursing Process as A Means of Improving Patient Care.**

The purpose of doing this study is to determine the extent the nursing process and nursing care plans could improve the quality of patient care and to explore the knowledge limitations of the nurses in implementing the nursing process, nursing care planning and nursing documentation.

The participants will be the registered nurses who are working in the wards and on the bedside care. The data collection will be through a structured questionnaire.

I am kindly requesting for permission and ethical clearance to conduct the research in this hospital.

The research proposal is attached.

Thank you.

Yours Sincerely,

Redempta Mamseri.

K.C.M.C

KILIMANJARO CHRISTIAN MEDICAL CENTRE

An institution of the Good Samaritan Foundation

P. O. Box 3010, Moshi, Tanzania

Tel: 255-027-2754377/ 80 Fax: 255-027-2754381

Email: kcmcadmin@kcmc.ac.tz Website: http://www.kcmc.ac.tz

Ref: KCMC PF. 1175/272 11th October, 2010

Redempta Mamseri,
Nursing Administration Department,
KCMC Hospital,
P.O. Box 3010,
MOSHI

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH STUDY

In reference to the above heading.

Please be informed that, permission has been granted for you to conduct Research study on Nursing process as a means of improving patient care.

We wish you all the best in your research so that you can achieve your study objectives.

Yours,

D. Massam
For: EXECUTIVE DIRECTOR
DO/gm

for. EXECUTIVE DIRECTOR
K.C.M.C. — MOSHI

TUMAINI UNIVERSITY

KILIMANJARO CHRISTIAN MEDICAL COLLEGE
P. O. Box 2240, MOSHI, Tanzania

RESEARCH ETHICAL CLEARANCE CERTIFICATE

No.330

Research Proposal No. 359.

Study Title: NURSING PROCESS AS A MEANS OF IMPROVING PATIENT CARE.

Study Area: TANZANIA.

P. I Name: REDEMPTA ALEX MAMSERI.

Institution (s): KILIMANJARO CHRISTIAN MEDICAL CENTRE AND UNIVERSITY OF SOUTH AFRICA.

The Proposal was approved by on: 15TH SEPTEMBER, 2010.

Duration of Study: FROM: 15TH SEPTEMBER, 2010 TO 15TH SEPTEMBER, 2011.

Name: BEATRICE Z. TEMBA

Signature.....

Research Administrator – CRERC

Name PROF. FRANKLIN W. MOSHA

Signature.....

Chairman – CRERC

STUCTURED QUESTIONAIRE

NURSING PROCESS AS A MEANS OF IMPROVING PATIENT CARE

1	2	3

All information provided will be treated as confidential. Please do not write your name on this questionnaire

Instructions:

For some questions there might be more than one appropriate answer, in that event mark all the responses you consider to be appropriate.

Answer all the questions as honesty as possible, frankly, and objectively.

Answer according to your own opinion and experience.

SECTION A: BIOGRAPHICAL INFORMATION

1. Indicate your age

		Answer
1.1	20 – 30 years	1
1.2	31 – 40 years	2
1.3	41 – 50 years	3
1.4	51 – 60 years	4

	4

2. Indicate the position you are currently employed in

		Answer
2.1	Enrolled nurse (3 years training)	1
2.2	Registered nurse (4 years training)	2
2.3	Professional nurse in charge of ward/ Department	3

	5

3. Indicate how many years you have been functioning in your current position in this hospital

		Answer
3.1	1 – 5 years	1
3.2	6 – 10 years	2
3.3	11 – 15 years	3
3.4	More than 16 years	4

4. Indicate your highest professional and academic qualification in nursing

		Answer
4.1	Diploma (4 years training)	1
4.2	Advanced Diploma (2 more years training)	2
4.3	Bachelor of Science in Nursing (3 years training)	3

	7

SECTION B: NURSING PROCESS (GENERAL QUESTIONS)

5. Have you received any training on the nursing process?

		Answer
5.1	Yes	1
5.2	No	2

	8

6. If your answer in question 5 was 'Yes', then please indicate what type of training you received?

		Answer
6.1	On the job by a colleague	1
6.2	Informal discussion in the ward or unit	2
6.3	In-service training	3
6.4	Other, please specify …… ……....	4

	9

7. How confident were you to implement the nursing process after the training you received in view of the nursing process?

		Answer
7.1	I was able to implement the nursing process correctly directly after the training	1
7.2	I understood the nursing process but found it difficult to implement	2
7.3	I found confusing	3
7.4	I felt very unsure	4

	10

8. The purpose of the nursing process is to:

		Answer
8.1	Replace the Kardex record	1
8.2	Ensure communication between all role players	2
8.3	Ensure continuity of care	3
8.4	Keep track of the patient's progress	4
8.5	No. 2,3, and 4 above	5

	11

9. The nursing process is a scientific way of delivering nursing care; please indicate how many steps there are in the nursing process.

		Answer
9.1	3 steps	1
9.2	4 steps	2
9.3	5 steps	3

	12

In view of answering question 9, list the steps of the nursing process in chronological order.

_____
_____
_____
_____
_____
_____
_____
_____

10. In implementing the nursing process, the care plan should be developed by the following parties:

		Answer
10.1	Nurses	1
10.2	Patient and the Doctor	2
10.3	Relatives and the Doctor	3
10.4	Nurse and the patient	4

	13

SECTION C: ASSESSMENT

11. The assessment phase of the nursing process entails the following:

		Answer
11.1	It is the first step of the nursing process	1
11.2	It establishes data for a specific patient	2
11.3	Putting a patient into a bed	2
11.4	Involvement of the patient and the relatives	4

[ ] 14

12. The assessment process requires the following activities:

		Answer
12.1	Taking and recording vital signs	1
12.2	Assessing and interpreting observations	2
12.3	Administering medication to patient	3
12.4	Involving doctors and relatives	4
12.5	Taking the patient's medical history	5

[ ] 15

13. To what extent do you agree with the following statement: Nurses do not do patient assessments they depend on the doctor's clinical assessment.

		Answer
13.1	Strongly agree	1
13.2	Agree	2
13.3	Uncertain	3
13.4	Disagree	4
13.4	Strongly disagree	5

[ ] 16

14. To what extent do nurses take a history from a patient when a patient is being admitted for elective surgery?

		Answer
14.1	Always	1
14.2	Sometimes	2
14.3	Rarely	3
14.4	Not at all	4

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SECTION D: NURSING DIAGNOSES

15. Indicate which of the following are examples of a medical diagnosis.

		Answer
15.1	Needs suctioning because of secretions	1
15.2	High risk of aspirations because of oral secretions	2
15.3	Pulmonary Tuberculosis	3
15.4	Vomiting related to complications of Human Immune Deficiency Syndrome	4

18

16. Indicate which of the following are examples of a nursing diagnosis.

		Answer
16.1	Raised temperature	1
16.2	Impaired wound healing	2
16.3	At risk of bed sores related to immobility	3
16.4	Facial grimacing	4

19

17. To what extent do you agree that high patient numbers prevent nurses from formulating nursing diagnoses?

		Answer
17.1	Strongly agree	1
17.2	Agree	2
17.3	Uncertain	3
17.4	Disagree	4
17.5	Strongly disagree	5

20

18. The nursing diagnoses is documented to provide a communication link to all health care workers regarding the patient's health status.

		Answer
18.1	Yes	1
18.2	No	2
18.3	Uncertain	3

21

19. The nursing diagnoses should be evaluated at the following intervals so as to come up with a revised or new diagnosis:

		Answer
19.1	Every six hours	1
19.2	On a daily basis	2
19.3	Every third day	3
19.4	Once a week	4

	22

SECTION E: PLANNING

20. The major components of planning are:

	23

		Answer
20.1	Setting goals, prioritizing, and documenting evidence based plans	1
20.2	History taking and physical evaluation	2
20.3	Evaluating progress towards goals	3
20.4	Discharging patients	4

21. Which is the most appropriate definition of planning?

		Answer
21.1	Collecting and recording all the patient's information	1
21.2	Deliberative, systematic phase of the nursing process that involves decision making and problem solving	2
21.3	Monitoring and recording vital signs and treatment	3
21.4	Writing patient reports and handing over at shift changes	4

	24

22. Nursing care plans:

		Answer
22.1	Can be implemented effectively without documenting the findings	1
22.2	Can be used in conjunction with the Kardex system	2
22.3	Depends entirely on the observation charts	3
22.4	Requires systematic follow up of the nursing process and review of the documentation	4

	25

23. Standardized care plans (such as for a head injury, diabetic or coma patient) could help improve quality of nursing care.

		Answer
23.1	Strongly agree	1
23.2	Agree	2
23.3	Uncertain	3
23.4	Disagree	4
23.5	Strongly disagree	5

26

24. To what extent do you agree with the following statement:
Nursing care plans are always difficult to implement due to time constraints.

		Answer
24.1	Strongly agree	1
24.2	Agree	2
24.3	Uncertain	3
24.4	Disagree	4
24.5	Strongly disagree	5

27

25. To what extent do you agree with the following statement:
Nursing care plans are part of the nursing process and serves as a road map that guides all the nursing staff in the care of their patients.

		Answer
25.1	Strongly agree	1
25.2	Agree	2
25.3	Uncertain	3
25.4	Disagree	4
25.5	Strongly disagree	5

28

26. To what extent do you agree with the following statement:
Every patient is unique and will need an individualized care plan.

		Answer
26.1	Strongly agree	1
26.2	Agree	2
26.3	Uncertain	3
26.4	Disagree	4
26.5	Strongly disagree	5

29

27. Do you hand over the nursing care plans of all your patients during shift changes?

		Answer
27.1	Always	1
27.2	Sometimes	2
27.3	Rarely	3
27.4	Not at all	4

30

28. When there are many patients in the ward, do you provide nursing care without nursing care plans?

		Answer
28.1	Always	1
28.2	Sometimes	2
28.3	Rarely	3
28.4	Not at all	4

31

29. How frequently do you discuss the nursing care plans with your patients?

		Answer
29.1	Always	1
29.2	Sometimes	2
29.3	Rarely	3
29.4	Not at all	4

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SECTION F: IMPLEMENTATION

30. The implementation phase of the nursing process deals with:

		Answer
30.1	Monitoring and recording the vital signs of a patient	1
30.2	Prioritizing nursing actions and documenting plans	2
30.3	Bathing of patients	3
30.4	Providing comfort post operatively	4
30.5	No. 1 and 2 above	5

33

31. Implementation of the nursing process is based on:

		Answer
31.1	The medical diagnosis	1
31.2	Accurate and complete nursing assessment, analysis, nursing diagnoses and strategies to achieve goals	2
31.3	The current patient vital signs	3
31.4	The doctor's orders as recorded in the patient's notes	4

	34

32. Nurse leader's involvement in non nursing administrative duties (such as going to the pharmacy, organizing repairs) contribute to poor implementation of the nursing process

		Answer
32.1	Strongly agree	1
32.2	Agree	2
32.3	Uncertain	3
32.4	Disagree	4
32.5	Strongly disagree	5

	35

33. Patients do not make progress because care plans are not implemented.

		Answer
33.1	Strongly agree	1
33.2	Agree	2
33.3	Uncertain	3
33.4	Disagree	4
33.5	Strongly disagree	5

	36

34. In actual practice, the implementation of the nursing process is hindered by a lack of knowledge and practical skills of the nursing staff:

		Answer
34.1	Strongly agree	1
34.2	Agree	2
34.3	Uncertain	3
34.4	Disagree	4
34.5	Strongly disagree	5

	37

35. To what extent does the following aspects hinder the implementation of individualized patient care based on the principles of the nursing process, in your unit?

		Answer
35.1	Lack of staff	1
35.2	Lack of nursing care plan forms	2
35.3	Unwillingness of nurses	3
35.4	Patient refusal to cooperate	4

	38

SECTION G: EVALUATION

36. To evaluate patient care, is:

		Answer
36.1	To provide comfort to the patient	1
36.2	To judge or to appraise the care given	2
36.3	To monitor and record the patient's vital signs	3
36.4	To provide physical exercises to the patient	4

	39

The importance of evaluation of nursing activities is:

		Answer
37.1	To assist the patient	1
37.2	To form an opinion or judgment on which to base the next step	2
37.3	To assist the doctors to discharge patients	3
37.4	To support the Physiotherapists to perform physical exercises to patients	4

	40

38. To what extent do you agree that re-assessment of the patient is <u>not necessary</u> if treatment has been given:

		Answer
38.1	Strongly agree	1
38.2	Agree	2
38.3	Uncertain	3
38.4	Disagree	4
38.5	Strongly disagree	5

	41

39. To what extent do you agree with the following statement:

Evaluation of the patient could be difficult to perform if the steps of the nursing process were not followed.

		Answer
39.1	Strongly agree	1
39.2	Agree	2
39.3	Uncertain	3
39.4	Disagree	4
39.5	Strongly disagree	5

	42

40. To what extent do you agree that lack of proper documentation by colleagues hinders appropriate evaluation?

		Answer
40.1	Strongly agree	1
40.2	Agree	2
40.3	Uncertain	3
40.4	Disagree	4
40.5	Strongly disagree	5

	43

41. How often is care <u>not evaluated</u> by nurse leaders?

		Answer
41.1	Always	1
41.2	Sometimes	2
41.3	Rarely	3
41.4	Not at all	4

	44

SECTION H: NURSING DOCUMENTATION

43 Indicate which of the following is the appropriate definition of the documentation related to the nursing process

		Answer
43.1	Documentation is any planned recording	1
43.2	Documentation is e-mail information	2
43.3	Documentation is any written or electronically generated information about a patient that describes the care or service provided to that patient	3
43.4	Documentation is to carry out doctors orders	4

	45

44. Indicate which are the contents of nursing documentation

		Answer
44.1	Patient's medical history	1
44.2	Assessment of the patients health status, nursing interventions carried out, the impact of the nursing interventions, and the patients outcomes	2
44.3	Laboratory investigations	3
44.4	Patient discharge summary	4

	46

45. To what extent do you agree with the following statement:
It is better to record something inaccurate than be seen to be negligent.

		Answer
45.1	Agree	1
45.2	Strongly agree	2
45.3	Uncertain	3
45.4	Disagree	4
45.5	Strongly disagree	5

	47

46. To what extent do you agree with the following statement:

Regardless of the care provided, if it is not documented, then it is regarded as not given

		Answer
46.1	Agree	1
46.2	Strongly disagree	2
46.3	Uncertain	3
46.4	Disagree	4
46.5	Strongly disagree	5

	48

47. To what extent do you agree with the following statement:

Nurses use verbal communication more than written communication during their care of patients.

		Answer
47.1	Always	1
47.2	Sometimes	2
47.3	Rarely	3
47.4	Not at all	4

	49

48. Effective documentation requires skills, knowledge, and standardized terminology

		Answer
48.1	Always	1
48.2	Sometimes	2
48.3	Rarely	3
48.4	Not at all	4

	50

SECTION I: SUMMARY QUESTIONS

Indicate which of the following activities pertaining to the nursing process are the most difficult for you to implement in the course of providing patient care.

		Answer
49.1	Assessment	1
49.2	Nursing diagnoses	2
49.3	Planning	3
49.4	Evaluation	4

	51

Please make recommendations for the improvement of patient care through the utilization of the nursing process in the ward or unit where you are currently working.

_____
_____
_____
_____
_____

THANK YOU FOR YOUR PARTICIPATION

Consent letter for the respondents

Dear colleague

I am currently a student at the University of South Africa (UNISA) pursuing a degree course Master of Arts in Health Studies - Research by dissertation.

The topic for the research is: Nursing Process as a Means of Improving Patient Care.

The purpose for doing this research is to determine knowledge on the nursing process and implementation of care plans through nursing documentation.

Your participation will support to explore areas for improvement for the benefit of patient care.

I am kindly requesting you to participate in this study by sharing your views.

Your views will be treated confidential.

Do not write your name on the questionnaire.

Return it to the research assistant.

Thank you for you participation