BARRIERS AND ENABLERS RELATED TO THE IMPLEMENTATION OF THE NURSING PROCESS AMONG NURSES IN TWO PRIVATE HOSPITALS IN THE CAPE METROPOLE AREA

By

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DECLARATION

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ABSTRACT

Background

The nursing process is a problem-solving framework with an approach that relies on the nurses critical thinking ability in delivering patient care. The 5-steps of the nursing process problem-solving framework consist of assessment, diagnosis, planning, implementation, and evaluation and forms the basis of providing reliable documentation regarding the processes of patient care. Such care is a global concept that is nationally and internationally used. The nursing process is cyclical, allowing for constant evaluation of care that is rendered to patients.

The study explored and described the barriers and enablers related to the implementation of the nursing process among nurses in two private hospitals in the Cape Metropole, Western Cape, South Africa.

Three main objectives were identified for the study:

- To explore and describe the barriers to the implementation of the nursing process.
- To explore and describe the enablers to the implementation of the nursing process.
- To identify the recommendations to support the implementation of the nursing process.

Methods

The study was conducted in two large private hospitals in the Cape Metropole area. A quantitative descriptive research design was utilised in this study. Data was collected using a self-administered questionnaire distributed to 95 nurses who met the inclusion criteria. Data analysis was aided by the expert assistance of a biostatistician, who used the STATA version 17 statistical software for the synthesis of data. The quantitative study results were presented using descriptive statistics presented in frequencies and percentages, while open-ended questions were presented in categories which the respondents responded to.

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Results

The data collected in the study was analysed with the help of a statistician who assisted the researcher in making sure that the data was presented in the form of frequencies and percentages. A total of 59 questionnaires were analysed, yielding a 66 % response rate. Study respondents reported on the barriers and enablers of time, training, knowledge, management support, organisation and staffing.

The analysis indicated that 78% of the respondents felt that they do not have enough time to implement the nursing process while 81% indicated that there was not enough staff on duty to implement the steps of the nursing process. Furthermore, the analysis of training indicated that 93% of the respondents felt that the nursing process was a good teaching tool, 97% stated that they knew how to implement the nursing process and that the management was in support of the implementation (86%), as it provided a framework for the delivery of quality patient care.

Conclusion

In conclusion, the barriers and enablers to the implementation of the nursing process might have an effect on nurses working in clinical practice. Respondents in the study recommended in the open-ended question that there was a need to address the expressed barriers and enablers.

Keywords

Documentation, Nursing process, Implementation, Registered Nurse (RN), Barriers, Enablers

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OPSOMMING

Agtergrond:

Die verpleegproses is 'n probleemoplossingsraamwerk met 'n benadering wat staatmaak op die verpleegster se kritiese denkvermoë om pasiëntsorg te lewer. Die 5-stappe van die verpleegproses probleemoplossingsraamwerk bestaan uit: assessering, diagnose, beplanning, implementering en evaluering en vorm die basisse van die verskaffing van betroubare dokumentasie rakende die proses van pasiëntsorg. Dit is 'n globale konsep wat nasionaal en internasionaal gebruik word. Die verpleegproses is siklies, wat konstante evaluering van sorg wat aan die pasiënt gelewer word, toelaat.

Die studie het die hindernisse en instaatstellers wat verband hou met die implementering van die verpleegproses onder verpleegkundiges in twee private hospitale in die Kaapse Metropool-gebied en beskryf.

Drie hoofdoelwitte is vir die studie geïdentifiseer:

- Om die hindernisse vir die implementering van die verpleegproses te verken en te beskryf.
- Om die instaatstellers te verken en te beskryf vir die implementering van die verpleegproses.
- Om die aanbevelings te identifiseer om die implementering van die verpleegproses te ondersteun.

Metodes

Die studie is in twee groot private hospitale in die Kaapse Metropool-gebied gedoen. 'n Kwantitatiewe beskrywende navorsingsontwerp is in hierdie studie gebruik. Data is versamel met behulp van 'n self-geadministreerde vraelys wat versprei is aan 95 verpleegsters wat aan die insluitingskriteria voldoen het. Data-analise is aangehelp deur die kundige hulp van 'n biostatistikus, wat die STATA weergawe 17 statistiese sagteware vir die datasintese gebruik het. Die kwantitatiewe studieresultate is aangebied met behulp van beskrywende statistieke wat in frekwensies en persentasies aangebied is, terwyl die oop vraag in kategorieë volgens die respondente se aanbeveling aangebied is.

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Resultate

Die data wat in die studie ingesamel is, is ontleed met behulp van 'n statistikus wat die navorser bygestaan het, om seker te maak dat die data in die vorm van frekwensies en persentasies aangebied is. Altesaam 59 vraelyste is ontleed wat 'n 66% reaksiekoers opgelewer het. Studie deelnemers het verslag gedoen oor die hindernisse en instaatstellers van tyd, opleiding, kennis, bestuursondersteuning/ organisasie en personeel.

Die ontledings het aangedui dat 78% van die respondente gevoel het dat hulle nie genoeg tyd het om die verpleegproses te implementeer nie, terwyl 81% aangedui het dat daar nie genoeg personeel aan diens is om die stappe van die verpleegproses te implementeer nie. Verder het die ontledings van opleiding aangedui dat 93% van die respondente gevoel het dat die verpleegproses 'n goeie onderriginstrument is, 97% van die respondente het aangedui dat hulle weet hoe om die verpleegproses te implementeer en dat die bestuur ondersteun word (86%) van die implementering, aangesien dit 'n raamwerk bied vir die lewering van gehalte pasiëntsorg.

Gevolgtrekking

Ten slotte, het die hindernisse en instaatstellers vir die implementering van die verpleegproses 'n uitwerking op die verpleegkundige wat op die kliniese vloer werk. Die respondente van die studie het aanbeveling in die oop vraag aangebied om die uitgedrukte hindernisse en instaatstellers aan te spreek.

Sleutelwoorde

Dokumentasie, Verpleegproses, Implementering, Geregistreerde Verpleegkundige (RN), Hindernisse, instaatstellers

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CHAPTER 1

INTRODUCTION AND OVERVIEW OF THE STUDY

1.1 Introduction

The nursing process is a universal scientific framework that is evidence-based and scientifically formulated to ensure the delivery of quality patient care (Mahmoud & Bayoumy, 2014:300; Mutshatshi, Mothiba & Mamogobo, 2020:203). The scientific framework known as the nursing process employs scientific reasoning, problem-solving and critical thinking to guide nurses in providing high-quality patient care (Shewangizaw & Mersha, 2015:45). This problem-solving framework relies on nurses' critical thinking ability in the delivery of patient care (Ofi & Sowunmi, 2012:355; Blair & Smith, 2012:160; Abebe, Abera & Ayana, 2014:1; Mahmoud & Bayoumy, 2014:301; Abdelkader & Othman, 2017:76; Akhtar, Hussain, Afzal & Gilani, 2018:171). The cyclical steps of the nursing process are assessment, diagnosis, planning, implementation, and evaluation, are continuous and provide a road map to ensure quality patient care and improved patient outcomes (Shewangizaw & Mersha*,* 2015:45). It is important to recognise that the quality of the care delivered to a patient can be accessed by the accuracy of the content written in the nursing process (Wang, Hailey & Yu, 2011:1). Conversely, a lack of adherence in applying the steps of the nursing process can impact the patient's length of hospital stay and treatment period and inevitably decrease the delivery of quality patient care (Tajabadi, Ahmadi, Sadooghi Asl & Vaismoradi, 2019:2; Julie, Simon, Irène, Charles, Mahuridi, Narcisse & Françoise, 2017:3; Wagoro & Rakuom, 2015:32).

Implementing the nursing process in a clinical setting improves the quality of nursing care, raises the nurses' awareness of the presenting condition, improves the quality of the nurses' documentation within the nursing process and increases nurses' job satisfaction and self-efficacy (Wagoro & Rakuom, 2015:32). However, several factors clearly defined in the literature, hinder the implementation of the nursing process. Some of these factors are; lack of knowledge, incompetence, a high patient turnover and a lack of time (Mahmoud & Bayoumy, 2014:301; Abdelkader & Othman, 2017:76; Akhtar *et al.,* 2018:171). There have been many advancements in medicine and within the medical profession, the emergence of new diseases and changes in healthcare

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requirements highlight the value of providing quality care. What we witnessed during the time of COVID-19 highlights the value of the nurse in clinical practice as well as the fact that the nurse at the bedside can provide care that could improve a patients health outcome. There is a demand for high-quality nursing care offered by nurses who are knowledgeable in the steps of the nursing process. Failure to use the nursing process results in poor quality health care, disorganisation of nursing care and conflicting roles (Mangare, Omondi, Ayieko, Wakasiaka & Wagoro, 2016:152). Lack of resources, incompetence, negative attitudes among nursing staff and insufficient staffing have all been linked to the failure of the nursing process being fully implemented (Mahmoud & Bayoumy, 2014:312). In addition, Mahmoud and Bayoumy (2014:309), Blair and Smith (2012:164) as well as Eygelaar and Stellenberg (2012:6-7), identified barriers related to the implementation of the nursing process such as lack of knowledge, time constraints, work experience of nurses and insufficient staffing ratios.

All nurses worldwide are guided by the nursing process to provide patient-centred quality care. It is a standard procedure that is followed by nurses globally (Opare *et al.,* 2017:58). In countries such as the United Kingdom, Australia and the United States, registered nurses require a university qualification to be able to carry out the responsibilities of assessment and nursing diagnosis of a patient (Mutshatshi, 2020:2). Internationally, with the 3 to 4 year degree or diploma the registered nurse assumes the role and responsibility of a supervisor in the care of the patient (Lubbe & Roets, 2013:60). Within the South African Clinical Context, it is the responsibility of the registered nurse to assess and plan care for patients, while the implementation of the care that has been planned can be performed by other cadres of nurses (Lubbe *et al.*, 2013:60). This is an important point, as it is noted that if the assessment step is not carried out correctly, it would negatively impact the nursing diagnosis that is made and ultimately influence the care that is implemented for the patient. This highlights the point related to knowledge and training of nurses who work with patients in clinical practice being of importance. It is critical that assessment, as defined within the scope of practice, be conducted by a registered nurse who is appropriately and completely qualified, accountable and legally permitted to do so (Lubbe *et al.,* 2013:60-61; Republic of South Africa, 2005:np).

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There appears to be a paucity of research in the current literature on the barriers and enablers relating to the implementation of the nursing process in private healthcare within the Cape Metropole area.

1.2 Background

The nursing process was first introduced to South Africa in 1978 at Groote Schuur Hospital and then at Livingstone Hospital in Port Elizabeth by Irene M. Miles, who was instrumental in utilising the nursing process (Habermann & Uys, 2006:125). The scope of a nurse as expressed in the Nursing Act No. 33 of 2005 states that “nursing is a regulated profession comprising a body of scientific knowledge and skill” (Republic of South Africa, 2005:34). Furthermore, section 30 of the Nursing Act No. 33 of 2005, states that a registered nurse should be able to practise nursing comprehensively (Republic of South Africa, 2005:34). Section 56 of the Nursing Act No. 33 of 2005 also elaborates on the aspects of the nursing process by recommending that registered nurses should be able to assess, diagnose and prescribe treatment (Republic of South Africa, 2005:34). Additionally, the ICN’s (International Council of Nurses) revised code of ethics highlights the importance of nurses being accountable and responsible for remaining competent in nursing practice (The ICN-Code of Ethics for nurses, 2021:12). The purpose of the ICN-Code of Ethics is to remind nurses of their ethical roles and responsibilities towards patients. This further links to the South African Nursing Councils Nurses Pledge, which is an oath that nurses take, pledging their devotion to remain responsible and accountable and accurate in their practice (Nurses’ Pledge-SANC, 2021:np).

The 5-step scientifically based problem-solving framework known as the nursing process consists of the assessment, diagnosis, planning, implementation and evaluation phases, of which each affect the care rendered to the patients (Continuing Professional Education in Nursing | ANA Enterprise, 2022:np). The 5-steps of the nursing process have a humanistic and outcome-based approach, with each component overlapping the other (Alfaro-LeFevre, 2002:4). The assessment phase is the first phase of collecting and analysing data, which then leads to a diagnosis made from the clinical judgment of the patients actual and potential presenting condition. Once a diagnosis is made, a nursing care plan is initiated and implemented. This

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implementation of care that has been planned by the registered nurse is based on the patients presenting condition. This phase is the 'doing' phase where the care that has been planned is actioned (Berman, Snyder & Frandsen, 2016:234). Once the nursing care plan is implemented, a process of evaluation involving documentation of the care and outcomes follows. The evaluation phase is ongoing and enables the nurse to modify the care rendered for the benefit of the patient. The nurse is the backbone of healthcare and an important role player in ensuring quality of care for all patients. The American Nursing Association highlights the important responsibilities that nurses have in clinical practice.

These responsibilities are:

- History taking and performing a physical examination that assists with critical decision-making.
- Health education and promotion, as well as counselling when needed.
- Administration of medication.
- Collaboration with a diverse group of healthcare workers to coordinate and care for a patient.

Nurses responsibilities include everything from direct patient care, case management and quality assurance processes to setting nursing practice standards and overall, overseeing complicated nursing care systems. It is the nurses responsibility to offer the patient the highest quality of care. The South African Nursing Council (SANC) elaborates in the scope of practice that it is the registered nurses obligation to ensure that the patient admitted to the ward has the correct information gathered to enable proper and accurate formulation of a nursing diagnosis. Thus, registered nurses are expected to use their skills, knowledge, and experience to meet the patients needs (ANA Enterprise | American Nurses Association, 2022:np) and to remain current and up to date with all nursing skills and knowledge pertaining to their field. According to Abebe *et al.* (2014:149), nurses have knowledge of the various phases of the nursing process but are unable to implement it fully, due to time, patient volume and patient turnover constraints. Similarly, Mahmoud and Bayoumy (2014:309), Blair and Smith (2012:166) as well as Eygelaar and Stellenberg (2012:6-7), identified barriers experienced by the nurse in relation to the implementation of the nursing process as

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a lack of knowledge, time constraints, insufficient work-experience of nurses and insufficient staffing ratios.

This research study is valuable as it looks into the barriers and enablers that nurses face in the wards, while attempting to implement the 5-steps of the nursing process.

1.3 Operational Definitions

Operational definitions are concepts that need clarity within a study. These concepts and their definitions are solely for use within the study (Kumar, 2011:66).

Documentation – Documentation is the noun format of a document; it is a process that provides evidence of whether something is true or not (Adrian-Vallance, 2011:209). For this study, documentation is the process of recording the actions that a nurse performs for a patient in written format. Documentation comprises the written or electronic recording of the steps of the nursing process done by the nurse for the patient that is cared for.

Nursing process – The nursing process is a framework and a tool that has been scientifically formulated to assess, diagnose, plan, implement and evaluate the care rendered to a patient (Bruce & Klopper, 2013:46; Meyer & Van Niekerk, 2008:183), intellectually and critically. In this study, the nursing process refers to the five-steps; namely; assessment, diagnosis, planning, implementation and evaluation that are used in clinical practice to document care rendered to patients.

Implementation – Implementation is the process of putting into practice an activity that has been planned for a patient (Berman *et al.,* 2016:234). For this study, implementation of the nursing process is putting into action a process of care that is delivered to a patient by a nurse.

Registered Nurse (RN) – [Synonym - Professional Nurse] – is a nurse who has qualified by means of a formal 3 - 4 year diploma course or a 4year degree course. They are individuals who are also registered with the South African Nursing Council under the provision of the Nursing Act 33 of 2005. For this study, a Registered Nurse is an individual who is involved in direct patient care, as per their Scope of Practice (R2598 of 1984 as amended), which would indicate that an RN is responsible for

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documenting all care rendered to an individual (SANC Regulation 2598 of 1984 as amended).

Barriers – Barriers, as defined by Adrian-Vallance, (2011:55) in the Longman South African dictionary, could be considered as obstacles that hinder one from doing something. In this study, a barrier could be anything that hinders the implementation of the nursing process.

Enablers – [Synonym – Facilitator] – An enabler is someone or something that makes other things possible (Oxford Learners Dictionary, 2020). In this study, enablers refer to anything that makes the implementation of the nursing process easier.

1.4 Rationale for the Study

The rationale for this study has arisen from observation as an experienced nurse educator who has worked in clinical practice for many years; that nursing personnel do not meticulously implement the nursing process and its various steps. The knowledge of the nurse and their ability to implement the nursing process is essential. Mutshatshi *et al.* (2020:309) concurred in stating that if the nursing process is implemented with more diligence, then this should improve the quality of nursing care and ultimately the patient's outcome ought to improve. Understanding that the nursing process is a framework that can enhance the quality of patient care and patient outcomes could be one of the reasons for investing time in enhancing the implementation of the nursing process (Shewangizaw & Mersha, 2015:45).

Two studies supported the researcher's curiosity to continue this research journey. A dissertation published in 2010 by Olivier reviewed six hospitals in the Cape Metropole and compared the research data in order to make recommendations for clinical practice. In his recommendations, he proposed that further studies be carried out to explore the knowledge deficit and training needs pertaining to the nursing process. He further stated that research should be established to look into the enablers of effective record-keeping (Olivier, 2010:112-113). Additionally, a study conducted in 2018 by Van As in the Eden Bay district of the Western Cape, looking at the nursing process and care plans in particular, displayed results that allowed her to recommend that there was a need for constant reinforcement of knowledge and skill pertaining to the

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nursing process. She further recommended that training in the form of refresher workshops be established to create greater awareness of the total nursing process (Van As, 2018:104).

In the private sector, training related to the nursing process is executed by the training department of the institution which ensures that updates and ongoing training and support to help nurses remain engaged and focused on implementing the nursing process takes place. Therefore, it is envisaged that the outcome of this study will highlight the barriers and the enablers of the nursing process in private practice and create an opportunity to make recommendations.

1.5 Problem Statement

The researcher, as a qualified nurse educator, observed potential barriers in clinical practice, such as staff shortages, poor communication within teams, poor understanding of documentation practices, time constraints and a lack of ongoing training, all of which influence the implementation of the nursing process.

Anecdotal evidence suggests that nurses are very busy in the wards often drawn away from completing certain steps of the nursing process, due to matters such as call bells that need to be answered, doctors' rounds, medication administration and disturbance by members of the multidisciplinary team. These factors restrict the ability of the nurse to implement the nursing process effectively. The literature from the last ten years emphasised factors such as staff shortages, lack of time for all the tasks that need to be fulfilled in the units and high patient numbers (Mahmoud & Bayoumy, 2014:309; Blair & Smith, 2012:166; Eygelaar & Stellenberg, 2012:6-7), as barriers that hinder the implementation of the nursing process.

Despite frequent training interventions carried out in clinical practice, it is still concerning to note that the nursing process as a scientific framework is not implemented in a holistic and systematic manner. To elaborate on this point, a nurse should assess a patient on admission followed by the provision of a nursing diagnosis made according to the signs and symptoms that the patient presents with. A nursing care plan is consequently drawn up and the care rendered to the patient by the nursing staff based on the nursing care plan is implemented and documented in the patient

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progress notes, these steps are a requirement by the SANC R2598 scope of practice (South African Nursing Council, R2598 of 1984:2).

Patient documentation audit meetings held with clinical practice partners and in clinical practice continue to reveal that patients are not being assessed holistically, and that nursing care plans are not updated or reviewed bi-daily. This highlights the fact that the nursing diagnosis and interventions relevant to the nursing care plan are either incomplete or absent from the nursing process; thus, questioning the quality of the care that is rendered to patients.

The auditing of patient documents focused on the nursing process reveals areas for improvement to enhance patient care (Mykkänen, Saranto & Miettinen, 2012:1). This is also highlighted in literature by Akhtar *et al.* (2018:185), who stated that nurses have knowledge of the components of the nursing process but are faced with barriers that hinder its implementation.

The above reasoning directed the researcher to pursue this study in an attempt to ascertain through a quantitative research process, what the barriers and enablers to implementing of the nursing process amongst nurses are.

1.6 Research Question

The research question for the study is as follows:

“What are the barriers and enablers to the implementation of the nursing process among nurses in two private hospitals in the Cape Metropole area?”

1.7 Research Aim

The study explored and described the barriers and enablers to the implementation of the nursing process among nurses in two private hospitals in the Cape Metropole area.

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1.8 Research Objectives

The research objectives are to:

- Explore and describe the barriers related to the implementation of the nursing process.
- Explore and describe the enablers related to the implementation of the nursing process.
- Identify the recommendations to support the implementation of the nursing process.

1.9 Theoretical Framework

Ida Jean Orlando was an associate professor at the Yale School of Nursing with a very successful career focusing on many spheres in nursing such as, being an educator, a researcher and a consultant within the nursing profession. In 1961, as a project investigator of the National Institute of Mental Health Grant's holder, Orlando published her first book, 'The dynamic nurse-patient relationship: function, process and principles' which featured the work of the deliberative nursing process (Orlando's Nursing Process Discipline Theory - Nursing Theory, 2020:np; George, 2002:190). In 1972, Orlando published a second book, 'The discipline and teaching of nursing' which further refined her work; focusing on the nursing process discipline (George, 2002:190).

Orlando observed the behaviour of nurses. Virtuous nurses focused on the patient's immediate verbal and non-verbal response during their contact period (focus on the deliberative interpretation of the patient). However, nursing based on pure morals would have nothing to do with the patient's behaviour. From this observation, the Deliberative Nursing Process Theory was birthed.

The Deliberative Nursing Process Theory is a process of constant and continuous reflection on the patient, helping the nurse to keep her focus aligned to her patients and their needs during their time of illness (George, 2002:207). Orlando's theory emphasized the nurse-patient relationship as reciprocal. What the nurse and the patient say and do has an impact on both of them. Orlando believed that it is necessary to determine and satisfy the patient's immediate need for assistance as a deliberative

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action (Nurseslabs, 2021:np). The Deliberative Nursing Process Theory assists nurses to be more focused on the delivery of patient care. It can guide and grow nursing practice and the nurse-patient relationship (George, 2002:207). Additionally, Deliberative Nursing Process Theory has 5 steps: assessment, diagnosis, planning, implementation and evaluation. These steps are created in such a manner that nurses would think consciously and with intent when caring for a patient (Dittrich, 2019:2). The nursing process and its various steps is a means of focusing on the human response (Alfaro-LeFevre, 2002:10). This theory further expresses the fact that a good nurse can identify a patient in distress and due to this identification, the nurse is then able to analyse the situation and plan and implement an appropriate care plan (Alligood & May 2014:258-259).

Orlando's theory of the deliberative nursing process provides a framework for patient care directed at a positive patient outcome (George, 2002:206). Figure 1 below displays the cyclical process of the nursing process, which is dependent on the nurse-patient relationship. Each step of the nursing process is dependent on the others and the nurse is the person who shapes the outcome of the process in collaboration with the patient.

Figure 1: Nursing Process (Adapted from: Tigist and Tiruye, 2019).

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Orlando's theory emphasised the function of the nurse as being deliberate in the goal of meeting the needs of the patient. The nurse should therefore have knowledge of the patients and the presenting condition, in order to assist the patient when caring for him or her. By using the steps of the nursing process, the nurse should be able to assess what the patients' needs are and these needs should be addressed by the nurse in an attempt to offer quality patient care. With this theory, the researcher will be able to observe nurses and their function in caring for patients, while considering the barriers and the enablers they encounter in clinical practice. Considering the nursing process barriers and enablers in institutions, the researcher will utilize the theory to analyse what elements influence nurses' implementation of the nursing process at the two hospitals in the Cape Metropole Area. The answers acquired from the questionnaire will assist in determining the utilization of the nursing process based on the identified barriers and enablers.

1.10 Conceptual Map

A conceptual map is a diagrammatic presentation of the research concepts that graphically depict and connect the major ideas of the study (Polit & Beck, 2017:723). A conceptual map is the researcher's process of illustrating the relationship between various concepts and how that affects the research process. Furthermore, it is a logical, abstract structure of meaning that guides the researcher in developing the study, by connecting the findings to current nursing knowledge (Gray, Grove & Sutherland, 2017:154). The conceptual map labelled Figure 2 will be discussed below.

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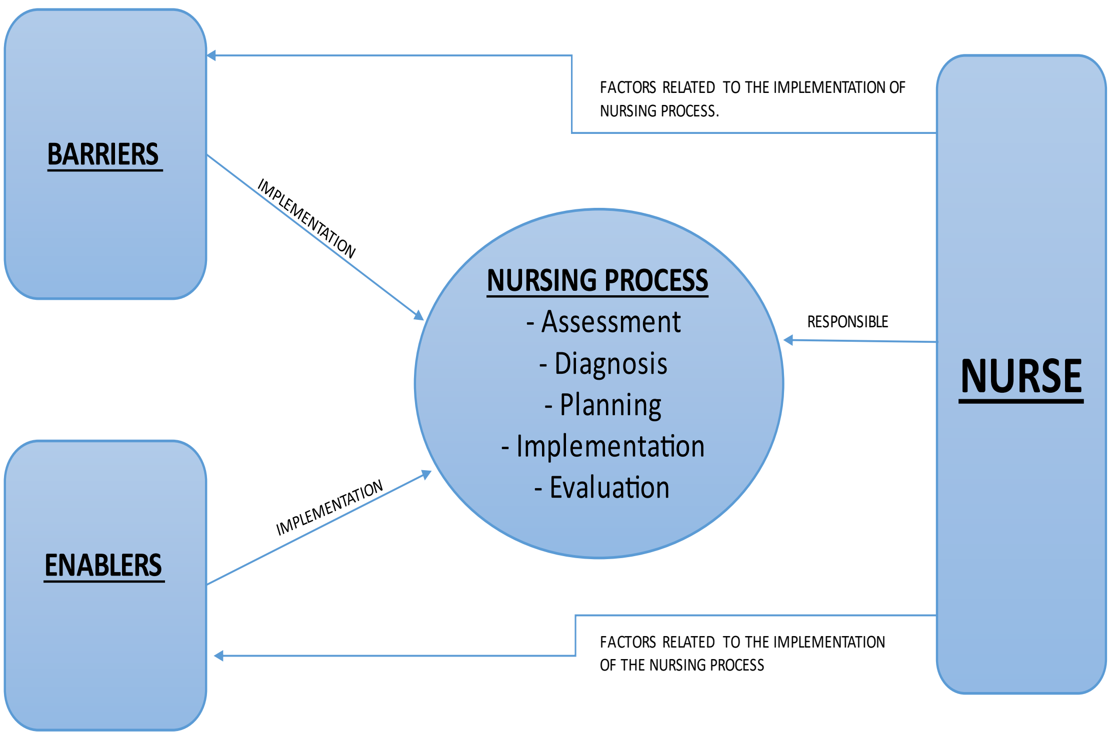

Figure 2: Conceptual Map (The relationships of the various concepts of the research)

The conceptual map should be viewed as a whole, with all the components engaging with each other, as depicted by the lines drawn from one concept to another. At the centre of the conceptual map is the nursing process with arrows drawn from the barriers and enablers, to indicate the impact of these on the 5-step process when the nurse applies it.

The nurse box, as seen from the conceptual map, has three arrows emanating from it; the one arrow points to the nursing process, as the nurse has a direct impact on the implementation of the steps of the nursing process. The other two arrows point towards the barriers and the enablers, as these factors influence the nurse and how he or she implements the nursing process.

1.11 Research Methodology

An overview of the research methodology followed in the study is provided. However, a comprehensive discussion will follow in Chapter 3 of the study.

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1.11.1 Research Design

The research design is the ‘blueprint’ of the research study that will be conducted; the framework guiding the research (Grove & Gray, 2018:106). The research study will follow a quantitative design which will be explorative and descriptive in nature. For this quantitative research design, a questionnaire will be used, together with the necessary information. It will be numerically analysed for interpretation.

1.11.2 Study Setting

This study was conducted in two private hospitals in the Cape Metropole area within the Western Cape, South Africa. As stated in the National Health Act 61 of 2003, access to private health care facilities requires patients to have medical aid or health care insurance, or alternatively be financially stable enough to be able to pay a set fee upfront (Republic of South Africa, 2004:14). The two hospitals are considered large private hospitals because they can serve more than 200 patients per facility. Any medical service that is given by an entity other than the government sector is referred to as private health care.

1.11.3 Population and Sampling

The private hospital group for this research project only has two hospitals located in the Cape Metropole region of the Western Cape. The sampling of a population is one of the most important parts of the research process as one cannot sample the whole population, but one needs to have a plan in terms of how a portion of the population will be sampled (Grove *et al.,* 2018:515). The researcher has established that for this research study the sample population will be registered nurses in the medical and surgical units.

1.11.4 Data Collection Tool

A structured questionnaire consisting of 25 questions divided into three subsections was developed by the researcher for use in the research study. A questionnaire as defined by LoBiondo-Wood and Haber (2014:582) is an instrument that consists of a paper and pen research instrument that is used for the manual collection of information from the study participants.

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1.11.5 Pilot Study

A pilot study is a miniature version of a proposed study with the same research population, environment, intervention, and data collecting and analysis plans as the larger-sample version. The goal of a pilot study is to see if the recommended methods work (Grove *et al.,* 2018:1077). The pilot study was conducted in the selected hospitals that are involved in the research study and this was done prior to the actual study taking place.

1.11.6 Data Analysis

A biostatistician and the project supervisor of Stellenbosch University assisted with the data analysis. The statistical package used by the statistician for the data analysis process was STATA version 17.

1.12 Ethical Considerations

Ethical principles in research play an important role in protecting the participants; by ensuring that the conducted research has integrity, is honest, and does not cause harm (Brink, Van der Walt & Van Rensburg, 2018:28). The fundamental ethical values are based on human rights which must be honoured and protected (Brink *et al.,* 2018:29). The Declaration of Helsinki, updated in 2013, safeguards the research participant and respects their privacy in the research process. The ethical principles in relation to the declaration that will be upheld in this research process comprise the principle of confidentiality and privacy as well as informed consent. The principle of justice and being fair to all groups who participate in the research will also be observed. All the ethical principles that have just been mentioned shall be discussed in greater detail in the paragraphs that follow.

Permission was obtained from the Health Research Ethics Committee of the Stellenbosch University - Project ID: 19494 and HREC, reference no: S21/01/013 (see Annexure 3). After obtaining ethical clearance from the Stellenbosch University, permission was sought and granted from the private hospital group for the study to commence. Refer to Annexure 4 for the institutional ethics approval (National Health Research Ethics Committee registration: REC 251015-048 and Ref: 12072021/1).

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1.12.1 Principle of Respect for Persons

The respondents are autonomous individuals who can choose whether they want to be part of the study or not. They will be assured that they will not be judged for their decision to partake or not to partake in the study (Grove *et al*., 2018:134). Study respondents were informed that they may decide at any point in the study to withdraw from the process and that this would not negatively impact them or their work circumstances. Study respondents were not coerced into taking part in the study (see Annexure 5).

1.12.2 Principle of Anonymity and Confidentiality

The research respondent's identity remains unknown, even to the researcher (Brink *et al.,* 2018:195). The principle of anonymity implies that all the respondents information is kept private and confidential throughout the data collection process. (Grove *et al.,* 2018:286). Confidentiality is the duty of the researcher to keep safe any documents or details that have been shared and contain personal information of a study participant (Grove *et al*., 2018:286). The questionnaires (see Annexure 1) that are used in the research do not contain any names or personal details of the respondents. Respondents were given a consent form (see Annexure 5) which they completed and deposited into an enclosed box. The respondents were reassured that the questionnaire and the consent forms would be kept private and confidential and that only the researcher would have access to the data. During the data collection process, the researcher collected the enclosed boxes from the wards and was the only person handling the data. A reference number was allocated to the questionnaires and the questionnaires will be stored for a period of five years in case they need to be audited.

1.12.3 Principle of Justice

The principle of justice speaks to one being fair in terms of selection and treatment of the respondents during the research study period (Brink *et al.,* 2018:30). All respondents who meet the inclusion criteria for the study should have the opportunity to take part in the study. In this way, the research process is fair and non-discriminatory towards study respondents. All registered nurses who met the inclusion criteria and who were available at the time of data collection participated in the study. The

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researcher, over a period of a month, attended the staff handover sessions in the morning and in the evening, to inform them regarding the research objectives and reasons for undertaking the study. This was a way to ensure that everyone had the opportunity to be knowledgeable about the research study, even though the registered nurses were the only respondents to complete the questionnaire. All the staff at the handover sessions were given a chance to ask questions before the researcher left the unit. Grove *et al.* (2018:289) indicated that respondents need to be treated fairly and receive what they are owed. Respondents were acknowledged for their time and given a token of appreciation from the researcher in the form of a bar of chocolate and a thank you note. The dissemination of the results will be the process of sharing the research findings with the hospital management who, it is hoped, will share them with the ward nursing staff.

1.13 Chapter Outline

The chapters of the research study are as follows:

- **Chapter 1: Introduction and Overview of the Study**
  Chapter 1 introduces the research study by describing the rationale, background, theoretical framework and providing a brief overview of the research methodology.
- **Chapter 2: Literature Review**
  Chapter 2 provides an outline of the relevant literature that has been reviewed for the study.
- **Chapter 3: Research Methodology**
  Chapter 3 provides a detailed discussion of the research methodology used in the study.
- **Chapter 4: Results and Discussion**
  Chapter 4 focuses on the data analysis and discussions pertaining to the study findings.
- **Chapter 5: Conclusion, Limitations, and Recommendations**
  Chapter 5 discuss the conclusions, limitations, and recommendations of the study.

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1.14 Summary

The nursing process is a global concept which is used in clinical practice as a foundational tool in offering quality patient care. The 5-steps of the nursing process all integrate and work together to complement the care that is rendered to the patient. This chapter provided a brief introduction and background to the study while providing a rationale and problem statement for the justification of the study. The methodology for the research, including the research design, target population, sampling size, and data analysis were briefly summarised. The ethical principles of autonomy, anonymity, confidentiality, and justice are discussed in this chapter, with relevance to how they are applied in the research process.

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CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Chapter 1 briefly explained the problem, rationale and research design of the study. It also focused on the ethical considerations that the researcher should observe when conducting the study. The focus of this chapter is to present the literature that has been reviewed that is relevant to the research topic.

2.2 Literature Review Process

A literature review is used to assess the quality of evidence and to synthesize it in relation to the research problem (Grove *et al*., 2018:199). A literature review is a systematic and scientifically based process of searching for literature pertaining to the research study. A good literature review provides the motivation for the reasons why the study should be conducted, as it generates evidence to support the research process (Jooste, Van der Vyfer & Van Dyk, 2010:292). As indicated by Brink *et al.* (2018:58) the purpose of a narrative literature review is:

- To evaluate the research critically and analytically.
- To position the study in a contextualised manner, based on the present body of knowledge.
- To compare the study findings as one identifies the research problem and addresses the research question, through the refinement of the literature.

In summary, Brink *et al.* (2018:58) deduced that the objective of a quantitative research study through the process of doing a literature review is to facilitate the planning and execution of a study.

In commencing the literature search, the researcher used search engines and databases to collect literature relevant to the research study. The search engines and databases used were PubMed, Medline, Google Scholar and EBSCOhost. Journals that were accessed during this period were the Journal of Advanced Nursing, the International Journal of Africa Nursing Sciences, the Journal of Holistic Nursing and Midwifery, Curationis, the Open Nursing Journal, the International Nursing Review and

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the Journal of Nursing and Health Science. The journal articles that were accessed and used in the literature review were not older that ten years (LoBiondo-Wood & Haber, 2014:64).

Finally, the researcher only considered articles that were published in English, due to the translation cost if articles in other languages were considered. Boolean logic operators were used in the study to expand on the literature search. The Boolean operators that were used are “AND”, “OR” “NOT”. An example of the way the Boolean operators were used as linking words are, “Barrier” “OR” “Enabler”, “Barriers” “AND” “Enablers.” These are just some of the methods used to search the literature.

2.3 The Nursing Process

The nursing process is a scientific method of gathering data relevant to presenting a patient’s condition and synthesising the collected data in a step-by-step method. This systematic approach allows for the delivery of holistic and quality patient care (Wagoro & Rakuom, 2015:31). The 5-steps of the nursing process are all intertwined, and one step cannot be done without the other. The goal of the nursing process is to evaluate the patient's health status, including current and potential healthcare needs or difficulties. It allows the nurse to develop strategies to address the patient’s needs and provide nursing care that will satisfy those needs (Berman *et al.,* 2016:148). The nursing process and its 5-steps as illustrated in Figure 3 below, will be discussed in greater detail in the sections that follow.

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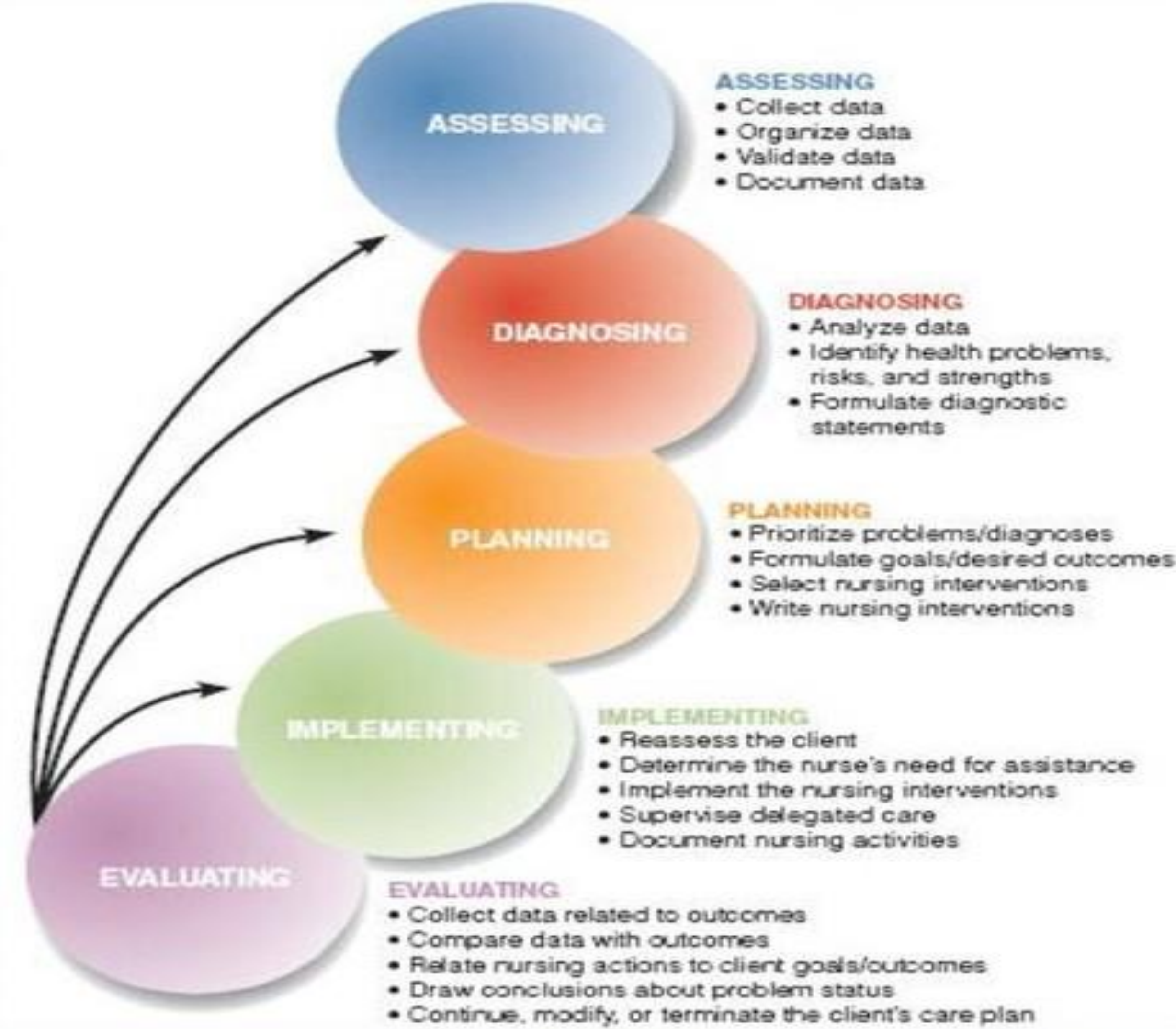

Figure 3: The Nursing Process (Adapted from Berman *et al.*, 2016:148)

2.4 Steps of the Nursing Process

One of the many advantages of the nursing process is that it establishes a scientific basis for interactions with the patient and is flexible enough to have an individualistic approach to the care rendered (Booysen, Erasmus & van Zyl, 2015:214).

2.4.1 Assessment

Assessment is seen as the first step in the diagnosing of a patient's health status and can be one of the most important steps in the nursing process. Assessment is the process of collecting, analysing, organising and capturing the subjective and objective data of the patients presenting health problems (Berman *et al.,* 2016:182). According

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to Brooker, Waugh, Van Rooyen, Jordan & Kotzé (2009:316), the assessment component of the nursing process is the cornerstone of diagnosing a patient's problem. The nursing approach used within the nursing process differs from the medical approach in that the medical approach deals with diseases and treatment thereof. The nursing process allows nurses to make decisions by giving them the freedom to plan how they will manage the effects of the health problems on the patient's activities of daily living (Mamseri, 2012:29). Part of assessing the patient is to observe the actual and potential problems that the patient presents with. This can be done by interviewing the patient and then doing a physical examination as part of the gathering, organising of information and then rendering care. (Booysen *et al.,* 2015:201).

The subjective data that is collected from the patient is the process of listening to what the patient says while the objective data is the tangible 'doing' part of the assessment, where data such as vital signs, weight and height etc. are collected to help establish what the patient is experiencing (Toney-Butler & Thayer, 2019:2). The American Nurses Association indicates that assessment introduces several new and important aspects to this step of the nursing process. These aspects include the physical, functional, psychosocial, emotional, cognitive, sexual, cultural, age-related, environmental, spiritual/transpersonal and economic assessment data. During this first step of the nursing process, the registered nurse collects and analyses data about the patient in a systematic and dynamic manner. The assessment phase is there to allow the patient to reflect on their own condition, identify communication barriers and recognize the impact of the nurse's attitudes, values, and beliefs on the assessment process (ANA - Principles of Nursing 2010: American Nurses Association, 2010:32).

2.4.2 Diagnosis

Diagnosis, as the second step of the nursing process, requires a critical-thinking mind that can interpret the data that was identified in the assessment phase. Diagnosis is thus the conclusion of the identified problems and planning the way forward to care for the patient (Berman *et al.,* 2016:201). The nurse has the authority to make a nursing diagnosis based on the patient's presenting health problem, whereas the physician makes a medical diagnosis (ANA 2010:34; Booysen *et al*., 2015:215).

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The nursing diagnosis should depict the following attributes:

- It should be brief and specific.
- Each nursing diagnosis should relate to a patient problem that needs addressing.
- The nursing diagnosis should relate to a patient's actual information presented on assessment.

A nursing diagnosis has two components to it, namely; (a) statement of a problem and (b) a description of related or supporting factors. It is important to discuss these two components as it directly impacts the formulation of a nursing diagnosis. The nursing diagnosis is essentially a statement of the patient's problem that requires a nursing intervention.

(a) Statement of the problem

In order to establish a nursing diagnosis, a registered nurse must be aware that the patient presents with a need, which can translate into a nursing diagnosis and that this diagnosis is based on the evidence collected from the assessment (Mogotlane *et al.,* 2018:219-220). The nurse observes that the patient has a particular need, which leads to the formulation of a nursing diagnosis and intervention, in order to meet the patients' need, whereafter a care plan is crafted indicating the care interventions. See Table 2.1 below for a brief illustration of the nursing diagnosis and the planned intervention.

Table 2.1: Patient's needs and related nursing diagnoses (Mogotlane *et al.,* 2018:220)

Need	Nursing diagnosis	Evidence from an assessment that supports the diagnosis
Oxygen need	Ineffective airway clearance	Evidence by: Weak cough, fatigue, dyspnoea

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(b) Description of related or supporting factors

The supporting information should include a description of the possible causes that led to the nursing diagnosis that was made. This should include the observations and all other relevant data that was established in the assessment step that led to the nursing diagnosis being made (Mogotlane *et al.,* 2018:219-220). Although the diagnosis step of the nursing process is very important in providing quality care for a patient, Mutshatshi *et al.,* (2020:6) reported that nurses do not know what to write when it comes to formulating a nursing diagnosis. Yet, being able to formulate a nursing diagnosis means that the nurse should have good critical-thinking skills and a sound scientific knowledge base.

2.4.3 Planning

Planning is the third step of the nursing process and is a collaborative process that involves the patient and the nurse as they plan care. The nurse, as per their scope of practice, should collaborate with the patient as part of the care planning step within the nursing process (Brooker *et al.,* 2009:324; ANA, 2010:36). Part of planning care for a patient is to ensure that the goals set within the care plan should be SMART (refer to acronym below). As exemplified by Toney-Butler and Thayer (2019:1) the goals of the care plan should be described according to the points below:

1. **S**pecific
2. **M**easurable or Meaningful
3. **A**ttainable or Action-Oriented
4. **R**ealistic or Results-Oriented
5. **T**imely or Time-Oriented

The process of planning care must be reviewed continuously to see if the needs of the patient are being met (Brooker *et al.,* 2009:325). The planning step can be further defined as a stage in which the nurse develops a care plan to fulfil the needs of the patient and establishes a standard whereby the patient should be nursed (Mogotlane *et al.,* 2018:223). The nurse-patient relationship, as discussed in Orlando’s theory, is described as meeting the needs of the patient which correlates into an improved patient outcome (Alligood & May, 2014:285). The patient’s involvement in the care plan is essential to achieve positive patient outcomes. When a care plan is drawn up

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for a patient, it is important that the nurse explains what will be done for the patient. Their combined input and cooperation in achieving the outcomes set up within the care plan is important. Within the ward, a care plan document should be discussed with the patient, where after the patient signs the document as a way of agreeing to the care plan, its interventions and the expected outcomes.

2.4.4 Implementation

The fourth step of the nursing process is implementation. The nurse can facilitate and apply his or her knowledge and skill to this component by assessing if the care plan was implemented and if it is beneficial to the patient (Berman *et al.,* 2016:234). The nurse should determine the coordination of care, health teaching, health promotion, and the consultation process with the patient and nursing staff alike, to ensure that the assessment, diagnosis, and planning steps of the nursing process remain relevant (Berman *et al.,* 2016:234-235).

During this step, the nurse is involved in the 'doing/action' part of the nursing process. Referring to Table 2.2 of the care plan document under the nursing intervention section point 2, it indicates that the patient needs to be given oxygen with a mask. If the patient has been part of the care planning step, they would understand that it is essential to keep the oxygen mask on so that a normal breathing pattern may return. However, if the patient was not part of the care planning step and the nurse just puts on an oxygen mask with very little or no information given to the patient, one could find that the patient removes the mask intermittently and will not return to a normal breathing pattern. Mutshatshi *et al.* (2020:8), report in the findings of their study done in Limpopo Province stated that nurses would set goals for the patients in the care plan, but the implementation of these goals was challenging due to a lack of knowledge, a lack of resources, and a shortage of equipment and manpower. These all impact the patients' outcomes. However, the participants in Mutshatshi *et al.,* (2020:10) study reported that the implementation of the nursing process improved the standard of nursing care.

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Table 2.2: Suggested format for nursing care plan (Adapted from Mogotlane *et al.,* 2018:225).

Nursing diagnosis	Expected outcome	Nursing interventions
Patient presenting a need or problem	**The objective**	**The nursing action and the rationale**
1.) Risk of skin breakdown due to immobility evidenced by potential skin breakdown.	Normal skin/intact skin.	Encourage patients who can move to reposition themselves regularly. Ensure that the bed linen is dry and without creases.
2.) Altered breathing due to disease process evidenced by dyspnoea and cyanosis.	Normal breathing respiration between 12-20bpm.	Give oxygen by nasal cannula or face mask. Nurse the patient in a semi-fowlers position.

2.4.5 Evaluation

Evaluation is the final step of the nursing process and the most vital in terms of achieving a positive patient outcome (Toney-Butler & Thayer, 2019:3). The evaluation step of the nursing process enables the registered nurse to assess whether the goals set out in the care plan for the patient have been effective and whether the care plan should be adapted, modified or discontinued (Brooker *et al*., 2009:325). Whenever a nurse intervenes or implements care, they must reassess or evaluate to ensure that the desired outcomes have been met. Additionally, the nurse evaluates the patients' progress, based on the goals that were set-up in the nursing care plans and if the care that was rendered was effective. With reference to Figure 2. above, the evaluation step should include the following aspects:

- Collecting data related to the desired outcomes of care.
- Comparing the data with desired outcomes.
- Relating nursing activities to outcomes.
- Drawing conclusions about the problem status
- Continuing, modifying, or terminating the nursing care plan.

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Evaluation is a critical step in the nursing process, as it provides the evidence that helps the nurse establish whether the care that was implemented met the patients' needs.

2.5 Barriers and Enablers Related to the Implementation of the Nursing Process

Barriers: There are various barriers to the implementation of the nursing process within health care establishments. According to Mahmoud & Bayoumy (2014:309-310), 67.6% of the participants in their study indicated that the barriers to the nursing process were; "inadequate staffing in a unit, a lack of specified nursing care documentation, an education budget, insufficient equipment and the absence of supplies and materials."

The barriers of inadequate staffing, lack of knowledge, insufficient equipment and an absence of materials or resources were reported in studies conducted by the following authors: Julie *et al.* (2017:1), Akhtar *et al.* (2018:171), Abebe *et al.* (2014:149) and Mutshatshi *et al.* (2020:309). Furthermore, there are factors that can be seen as enablers for the implementation of the nursing process.

Enablers: The term 'facilitator' has been used frequently in older literature and will be referenced as such in this section. The definition of facilitators in the literature is the process of facilitating the care of patients (Akhtar *et al.,* 2018:173). The term 'facilitator' will be replaced with the term 'enablers' for this study. Moreover, the term 'enabler,' as defined in the concept clarification section, is something that makes other things possible. In this study, the researcher will look at the concepts of time, knowledge, training, management support and staffing levels, to establish how these concepts can be seen as enablers.

2.5.1 Time

The Dictionary by Merriam-Webster (2021:np) defines time as, "a period during which an action, process, or condition exists or continues." A lack of time has been identified by various studies as a barrier to the implementation of the nursing process, (Jooste *et al*., 2010:94*;* Abebe *et al*., 2014:5*;* Mahmoud *et al.,* 2014:309*;* Julie *et al.,* 2017:14*;* Mutshatshi *et al*., 2018:3-4). A study by Mamseri (2012:87) conducted in Tanzania

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exploring the nursing process as being a means for quality patient care, but established through data collection and synthesis that nurses reported a lack of time as being one of the most important barriers when implementing a nursing care plan. Mamseri (2012:87) reported that 71% of the study participants confirmed that time was a constraining factor to the implementation of the nursing process.

Ngao (2015:11) conducted a study in a hospital in Kenya and reported that 68.2% of the nurses felt that the nursing process was time-consuming and removed them from their duties at the patient's bedside. Abebe *et al.* (2014:5), also reported in their study conducted in Ethiopia that nurses are unable to complete duties that have a direct impact on patient safety, due to a lack of time. Time as a constraint in implementing the nursing process was confirmed in a qualitative study by Jooste *et al.* (2010:94) where one of the participants articulated the concerns relating to the workload and patient acuity in the wards, resulting in very little time being available to write a care plan for every patient.

A qualitative study conducted in Limpopo Province by Mutshatshi *et al.* (2018:3), reported that nurses faced the challenge of the nursing process being time-consuming. Participants reported that it takes an hour to complete one admission due to all the documents that need to be completed, while some of the participants reported that there could be three patients for admission at the same time and they would still have to do medication rounds and vital signs. These tasks all take time, which affects the implementation of the steps of the nursing process when having to complete an admission assessment. Okaisu, Kalikwani, Wanyana & Coetzee (2014:2) concurred by stating that in their study it was evident that the implementation of documenting care in the nursing process consumed up to 50% of a nurse's time.

2.5.2 Knowledge and Training

The Dictionary by Merriam-Webster (2021:np) defined training as the skill, knowledge or experience one acquires. Acquiring information related to the steps of the nursing process entails becoming aware of these steps and recognizing the need to forge meaningful connections between knowledge and expertise. Nurses may have knowledge of all 5 steps related to the implementation of the nursing process; however, being able to implement every step needs ongoing training.

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Mahmoud *et al.* (2014:309) reported in their study that 95% of nurses have good knowledge regarding the implementation of the nursing process; yet Abdelkader and Othman (2017:79) identified that 88% of the study respondents have average to good knowledge of the nursing process steps. Julie *et al.* (2017:1) conducted a study in eleven public hospitals in the Republic of Congo and reported that 47% of the participants lacked theoretical and practical knowledge of the nursing process. A study conducted by Akhtar *et al*. (2018:184), concurred that nurses have knowledge of the nursing process as 33% strongly agreed and 43% agreed that they had knowledge of the nursing process. In a qualitative study conducted by Jooste *et al.* (2010:93), one of the participants responded as follows: they "*know what to do"* and that utilising the nursing process was a waste of time, thus signifying the attitude of the nurses in the study towards the nursing process.

It could be deduced, based on the published studies mentioned above, that nurses have knowledge of the nursing process due to some form of training. Mamseri, (2012:71) concurred, as it was reported in her study that 97% of nurses received training on the implementation of the steps relating to the nursing process. Although, Mamseri (2012:71-72) reported that 97% of nurses had received training on the nursing process, it is alarming that 57% of the participants reported that they were unable to implement certain steps of the nursing process, such as formulating a nursing diagnosis, based on the patient's presenting the problem. This was also highlighted in a qualitative study conducted by Maharaj (2015:89) in Kwazulu-Natal where one of the participants expressed that there was a lack of understanding of certain steps in the nursing process, such as the care plan.

In a study conducted by Mahmoud *et al*. (2014:308), 95% of the nurses who took part in the study indicated that the nursing process was a good teaching tool and allowed for their continuous professional learning. The nurses' view in the study by Mahmoud *et al*. (2014:311) showed that 97% felt that knowledge and practical experience were key facilitators to the accuracy of implementing the nursing process. The scientific framework of the nursing process is taught as part of a student's undergraduate program. It is grounded in the science and art of care, which is the definition of nursing. Mahmoud *et al.* (2014:308) indicated that 96% of the study participants believed that

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the nursing process unified nursing practice. Furthermore, the study showed that the nursing process created an opportunity for ongoing learning and that 93% of the study participants agreed that the nursing process helped nurses to appreciate the reason for their actions and interventions. Therefore, having knowledge and training can be seen as enablers to the implementation of the nursing process.

2.5.3 Management/Organisational Support

Management of the nursing environment is the process of planning, organising, coordinating and controlling the relevant aspects related to meeting the goals and objectives of an organisation (Meyer, Naude, Shangase & van Niekerk, 2009:185). Management support, as applied to this study, relates to the support that the hospital management teams give to improving the implementation of the nursing process. Meyer *et al.* (2009:9) elaborated further by stating that the management of an organisation, namely the unit managers of the wards, is in a position to empower the nurses to implement the steps of the nursing process by supporting them and establishing areas of concern they might have. Mahmoud *et al.* (2014:310) reported that 81% of nurses in their study agreed that work related to extra administrative duties and other bureaucratic activities hindered the nurse from fulfilling her duties to implement the nursing process. These administrative duties also hindered the nurse from rendering quality care. Management should also ensure that there are sufficient resources for a nurse to perform the required duties when caring for a patient. In her study, Umutesi (2017:45) mentioned that institutions should provide resources to facilitate the implementation of the nursing process. Jooste *et al.* (2010:94) concurred that nurses require help from their managers in the workplace; acknowledgement of their workload and levels of knowledge and should provide security. Furthermore, Jooste *et al*. (2012) stated in their qualitative study that management did not support the implementation of the nursing process.

A Kenyan study deduced that the management of the institution where the study took place supports the implementation of the nursing process and that 79% of the nurses reported that hospital administration recognized the nursing process as a framework for providing quality nursing care (Mbithi, Githui & Wambugu, 2018:5). A further deduction from that study was that 50% of the nurses indicated that the hospital

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management were supportive of the implementation of the nursing process. The support of management in implementing the nursing process is largely identified as a barrier. However, one study published by Hagos, Alemseged, Balcha, Berhe & Aregay (2014:7) reported that 47% of the study participants thought that the management of the hospital supported the implementation of the nursing process. Another study that emphasised the value of management as an enabling factor to enhance the implementation of the nursing process was the quantitative study by Mbithi *et al.* (2018:6) where 75% of the participants indicated that hospital administration supplied relevant tools to enable personnel to implement the nursing process.

2.5.4 Staffing Resources

A report written by the Solidarity Research Institute (2009:np) stated that there is only one nurse to take care of every 375 patients. Interestingly, an article written by the Solidarity Research Institute in April 2019 highlighted that there is still one nurse to every 375 patients which means that there has been no change in 10-years (Brits, 2019). This highlighted the fact that as early as 2009, staffing in hospitals was a concern. Although this report was published in 2009 and an updated article was sourced indicating that, it is still evident there is a nursing staff shortage in South Africa. It is a known and well documented fact that nursing staff is one of the most expensive resources; thus, when appointing nurses to a unit, one should assess their capabilities, level of training and learning needs (Meyer *et al.,* 2009:216). Developing an adequate skills mix of nurses to work in a certain ward in clinical practice adds to staffing concerns. Okaisu *et al.* (2014:6), suggested that nursing leadership should adopt a transformational leadership approach as a way of addressing the skills mix and the retention of staff. Tadzong-Awasum & Dufashwenayesu stated in (2021:5) that staff shortages in nursing is a global crisis but that in sub-Saharan Africa the problem is more serious and often negatively impacts the implementation of the nursing process.

A qualitative study conducted by Jooste *et al.* (2010:94) in a gynaecology ward in Namibia documented that one respondent had said that "*one of the main reasons for the nursing process not being utilised is staff shortage*"; while another respondent said that "*staff resign and those that stay become overworked and sick.*" This makes implementation of the nursing process more difficult, as there is not sufficient staff to

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perform required tasks. The respondents in Mamseri's (2012:95) study echoed this sentiment by stating that lack of staffing hindered the implementation of the nursing process. A study by Akhtar *et al.* (2018:185) concurred that management should provide sufficient staff to promote the use of the nursing process. A quantitative study carried out in Kenya discussed the fact that the nurse-to-patient ratio was found to be high, which could be one of the hurdles preventing nursing staff from using the nursing process (Mbathi, 2018:10). The observation of nursing staff ratios to patient volume illustrates the shortage of staff that is faced in clinical practice. Agyeman-Yeboah, Korsah & Okrah (2017:5) conducted a qualitative study in Ghana which showed that the wards were not well staffed with nurses and that when there were nursing students in the ward, it was expected that would they help with patient duties and with completing the steps of the nursing process. The study elaborated further by observing that the presence of student nurses in the ward gave a false sense of adequate staffing.

2.6 Summary

The nursing process is a scientifically based framework that consists of several steps which, when correctly and comprehensively implemented, could aid in the delivery of quality patient care. The literature reviewed in this chapter highlights the components and functions of each step of the nursing process and the barriers and enablers that contributed to the implementation of the nursing process.

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CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Chapter 2 provided an overview of the literature pertaining to the nursing process. Chapter 3 will discuss in detail the methodology applied in the given study. The purpose of this chapter is to discuss the research methodology and the research design that was used. This chapter will also elaborate on the sampling method and population that were recruited for the study and finally it will look at the validity and reliability, as well as the ethical considerations.

3.2 Aim and Objectives

The aim of this research study is to explore and describe the barriers and enablers to the implementation of the nursing process among nurses in two private hospitals in the Cape Metropole area.

The study objectives are:

- To explore and describe the barriers to the implementation of the nursing process.
- To explore and describe the enablers to the implementation of the nursing process.
- To identify the recommendations that support the implementation of the nursing process.

3.3 Research Methodology

This section should give the reader an understanding of how the research study will be conducted. Research methodology refers to the methods that are used to answer the research question (Gray *et al.*, 2017:192).

3.3.1 Research Design

The research design is the ‘blueprint’ of the research study that will be conducted; the framework guiding the research (Grove, Gray & Burns, 2015:211). According to Polit

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& Beck (2017:56), the research design is an overall plan to obtain an answer to the research question.

3.3.1.1 Quantitative Research Design

A quantitative research design is a systematic process of comparing variables by gathering data and analysing it (Grove *et al*., 2015:32). Quantitative research thus seeks to observe a cause and effect between study variables and in addition, it also aims to test possible relationships between study variables (LoBiondo-Wood & Haber, 2014:8). Furthermore, Polit & Beck (2017:54-55) described quantitative research as a linear process that moves from a position of posing a question to obtaining an answer.

Quantitative data is normally numerically analysed, and this will be done by means of a questionnaire. In this research study, a structured questionnaire was used to gather the necessary information from the study participants, which was numerically analysed and interpreted. A quantitative approach was thus suitable for addressing the research question and research objectives of the study.

3.3.1.2 Exploratory Research Design

Exploratory research design starts with an interesting phenomenon, but instead of simply describing it, exploratory research looks into the nature of the phenomenon, how it manifests itself and the elements that are linked to it; even those that might be influencing it Polit & Beck, (2017:15). This design was found to be beneficial in exploring the barriers and enablers that influence the implementation of the nursing process within the medical and surgical units of the two private hospitals in the Cape Metropole area.

3.3.1.3 Descriptive Research Design

The goal of a descriptive research design is to determine the frequency of an occurrence connected to the study subject; as well as to identify an issue that is currently being addressed in clinical practice (Grove *et al*., 2015:33). With a descriptive design, there is no intention of establishing causation but rather the intention is merely to answer the research question that is related to the study (Brink *et al*., 2018:96). Thus, the researcher aimed to provide accurate data about the study by gathering and analysing the data collected during the study (Brink *et al.,* 2018:96).

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3.4 Study Setting

The study was conducted at two large private hospitals in the Western Cape located in the Cape Metropole area. The two hospitals are both private hospitals belonging to the same hospital group. The reason for this approach was to create a greater understanding of the barriers and enablers related to the implementation of the nursing process within a specific private healthcare group. Hospital A has a 250-bed occupancy, consisting of medical, surgical, orthopaedic, renal, paediatric, maternity, emergency, high care, and intensive care units, as well as an acute psychiatric unit and a renal dialysis unit. Hospital B has a 200-bed occupancy consisting of medical, surgical, vascular, Gastro-Intestinal Unit (GIT), paediatric, maternity, emergency and intensive care units.

3.5 Population and Sampling

The researcher has the responsibility of identifying a population from which the study sample will be drawn. The sampling of a population is one of the most important parts of the research process as one cannot sample the whole population, but the researcher needs to have a plan in terms of how a portion of the population will be sampled (Grove *et al.*, 2015:515).

3.5.1 Population

The population of a study is a group of individuals that will be used in the study to help focus the research. Brink *et al.* (2018:116) concurred with many other authors (Grove *et al.,* 2015; Polit & Beck, 2017:249) regarding the definition of a population; namely an entire group that meets the study inclusion criteria. Furthermore, it is essential to define the difference between a target population and an accessible population. The target population is the total number of cases that meet the study's requirements and are available for research, whereas the target population is the collection of cases that the researcher wants to generalize about (Polit & Beck, 2017:249). The target population for this study comprises the nurses who work in the medical and surgical units in the two private hospitals in the Cape Metropole area. According to the situational analysis done at the hospitals, the target population intended for this study was 135 registered nurses.

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3.5.2 Sampling method

The sampling method is a strategy that allows the researcher the opportunity to obtain a study sample (Grove *et al.,* 2015:255). Furthermore, sampling can be considered as the practice of selecting cases to represent a whole population (Polit & Beck, 2017:205). Thus, non-probability, convenience sampling method was used for this study. Registered nurses working in the medical and surgical units were selected as the population for the study. The registered nurses who were on annual leave or sick leave or who did not want to volunteer to be part of the study were excluded from the study. As part of the sampling process, the researcher obtained the employee list from the hospitals to calculate the number of nurses that would take part in the study.

3.5.3 Sample size estimation

The sample size estimation was done using WINPEPI statistical package. The sample size estimation was computed assuming that 50% of the participants would give a "yes" response to each question (an estimate that gives the largest variance and therefore the largest sample size for a given level of precision). It was thus calculated that from the target population of (N=135) an estimated sample size of 95 participants was required to achieve a precision of ±10.5% for a 95% confidence interval. A statistician assisted with the above sample estimation calculation.

3.5.4 Inclusion criteria

According to Gray *et al.* (2017:294), the characteristics that a research participant must possess to be included in a target population are referred to as the inclusion sampling criteria. The inclusion criteria for this study were registered nurses working in the medical and surgical units who were employed in the hospital at the time of the study.

3.5.5 Exclusion criteria

Gray *et al.* (2017:294), states that the qualities that can allow a person who meets the inclusion criteria to be excluded or removed from the target group are known as the exclusion sampling criteria. For this study, the exclusion criteria are nurses that work in the high acuity units such as the theatre, trauma, intensive care unit (ICU) and high care (HC), due to the nature of the implementation of the various steps of the nursing process. These wards use a ward chart (also known as an ICU chart) which is

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structured differently from the general ward charts. In the theatre environment, it is only required for the theatre personnel to complete a theatre document, which does not cover all the other documents that the staff in the general units have to complete, containing the total nursing process. The same can be seen in the trauma unit where they only complete the short stay trauma documents. Units such as trauma and theatre do not have to complete a nursing care plan and arrive at a nursing diagnosis for a particular care plan. These are essential components when establishing why nurses may have concerns with implementing the nursing process in clinical practice. For these reasons trauma, theatre, ICU and HC units were excluded from the study.

3.6 Data Collection Instrument

Data collection is the process of collecting and organising data obtained from study participants (Polit & Beck, 2017:488). Due to the nature of the study and after compiling the literature review, it was concluded that the researcher would construct a questionnaire that was guided toward meeting the study objectives. The questionnaire was adapted from previous studies and permission was given to the principal researcher by authors Olivier (2010:131-136) and Ngao (2015:50-55) to use parts of their questionnaires and adapt them to the current study setting (See Annexures 6 & 7). A portion of the questionnaire for this study was adapted from Olivier's questionnaire that was used for a study titled, "Self-reported attitudes, knowledge and practice behaviours of nurses in selected Cape Town Hospitals" and Ngao's study titled, "Assessing barriers to implementation of the nursing process (NP) among nurses working at Machakos level 5 hospital". Both questionnaires aided the researcher in putting together the current study questionnaire. The following questions were adapted from the studies of Ngao (2015:50-55) and Oliver (2010:131-136)*: Questions 6.3; 6.5; and 6.19 taken from the study of Olivier (2010:131-136) and Questions 6.2; 6.8; 6.15 and 6.16 from Ngao (2015:50-55)*. The remaining 13 questions in section B were developed by the researcher, based on the extensive literature review. Lastly, section C consisted of one open-ended question, which has elicit possible recommendations from the respondents regarding the implementation of the nursing process.

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The questionnaire was set in English only and it was established that it should have taken the respondents an estimated 15 minutes to complete. However, due to the nature of clinical practice and the increased patient numbers during the COVID-19 pandemic, the researcher had to adapt to the fact that not all the nurses could complete the questionnaire in the 15-minute period. This meant that the questionnaires were handed out in good faith by the researcher, who then instructed the respondents to complete the questionnaire during their shift when they had a free moment, but that they could not take the questionnaire home. If the participants were not able to complete the questionnaire during their shift, then they would deposit an empty questionnaire into the box. The questionnaires were all given a unique code that added to the anonymity of the respondents. This code was generated by the researcher and was only known to the researcher, namely, LAS001. The data was analysed by using descriptive analysis presented in frequencies and percentages. Responses to the open ended question was captured on an Excel spreadsheet which allowed the researcher to read and re-read the verbatim responses of the respondents, highlighting key words and putting them into categories. This is further explained in chapter 4.

3.7 Pilot Study

Kumar *et al.* (2011:11) describe a pilot study as a study that is done to determine if it is worthwhile to carry out a detailed investigation. Gray *et al.* (2017:793) concurred, saying that a pilot study is necessary to identify problems that could occur and interfere with the study's validity. Hence, the pilot study was conducted before the main study to elicit any concerns regarding the data collection instrument. Polit and Beck (2017:624) define a pilot study as a smaller version of the larger-scale study that would take place thereafter. In this quantitative study, the questionnaire was given to a small sample of the larger population to establish if there were any concerns with the questionnaire, in terms of readability and understanding. The researcher selected ten respondents to take part in the pilot study, as this represented 10% of the sample size, as calculated by the statistician. The statistician calculated that the estimated sample size for the study should be 95 so therefore 9.5, being 10% was rounded off to ten respondents who were included in the pilot study.

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The medical unit in Hospital B was used for the pilot study. The reason for this approach was that Hospital A still had a large number of COVID-19 patients and the nurse manager of the hospital requested that the researcher wait an extra week before entering the hospital to do the data collection. Hospital B had a different approach where the Nurse Manager gave the researcher full access to the hospital provided the required Personal Protective Equipment (PPE) was worn. The medical unit that was chosen for the pilot study was the unit that had the smallest composition of staff which made managing the pilot study easier. The process that followed was that the researcher attended the morning handover session in the medical ward of Hospital B and explained to the ward staff the research process and the reason for doing the pilot study. The questionnaires were given to the registered nurses who were asked to complete the questionnaires. All ethical principles that were applied to the main study were also applied to the pilot study.

The pilot study was an opportunity to establish the readability of the questionnaire and to check if there were any spelling and grammar concerns. Three of the questionnaires were not completed fully, with the participants leaving sections out, this could have been because the participants did not fully understand what they had to do. A comment was added to the questionnaire explaining to the participants that all the questions should be answered.

3.8 Reliability

Reliability is the consistency and dependability of the measuring tool used (Brink *et al.,* 2018:155). If the measurement tool is reliable, then the same respondents should be able to use the instrument again and get the same results. A reliability test must be performed on each instrument used to test the instrument's stability, consistency, dependability, and reproducibility (Grove *et al*., 2015:288). To test the stability of the questionnaire one would have to give the same individual the instrument on two separate occasions within a short period of time to assess if the responses are the same. This method is termed the test re-test method. A pilot study was conducted in the research process to identify any errors in the questionnaires, this pilot study was conducted in the same ward where the main study was to take place.

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A Cronbach's alpha is used to measure the internal reliability of multiple-item scale questionnaires, (Grove & Gray, 2018:341). For this study, a Cronbach's alpha was done on all subscale items as depicted in Table 3.1 below.

Table 3.1: Cronbach alpha of questionnaire

Time	0.5484
Training	0.6758
Knowledge	0.3429
Staffing	0.6873
Overall Cronbach Alpha for the tool	0.63

These results could be considered acceptable for a newly adapted self-administered questionnaire. Other researchers have provided acceptable lower limits of acceptability for Cronbach's alpha, including (Cai & Loo, 2014:113) who in the first edition of his book suggested that values as low as 0.50 are appropriate for exploratory research. As another example, Hair, Anderson, Babin and Black (2010:np) proposed that while a value of 0.70 is generally agreed upon as an acceptable value, values as low as 0.60 may be acceptable for exploratory research. This questionnaire had several questions that were adapted from various other questionnaires such as Oliver (2010:47) whose questionnaire yielded a 0.99 to 1.00 Cronbach alpha and Ngao (2015:np) who had developed a semi-structured questionnaire but had not reported on the overall Cronbach alpha.

3.9 Validity

Validity is the concept that tests whether the instrument will measure what it is meant to measure (Brink *et al.*, 2012:151). However, complete validity of an instrument may not always be possible as the instrument may be valid in one situation but not in another (Grove *et al.*, 2015:291). Furthermore, the validity of the instrument seeks to ascertain that the instrument measures what it is meant to measure within the context where it is set (Brink *et al.*, 2018:151).

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Face validity is considered to determine the readability and clarity of the instrument used (Brink *et al.*, 2012:152). Face validity is used to show that the instrument measures the target construct (Polit & Beck, 2017:310). Participants are more likely to complete the questionnaire if they know that it reflects the title and is relevant to their setting. A statistician was also included in the process of establishing the face validity of the instrument.

Content validity determines how well all the components of the questionnaire are presented (Brink *et al.*, 2012:152). When a newly developed tool is used, the instrument is submitted to content experts who judge the contents and so see if it is capable of meeting the study outcome (LoBiondo-Wood & Haber, 2019:280). Content validity of this instrument is determined by using an expert in the field such as the researcher's supervisor, a statistician and a qualified nurse educator, who is able to check the content of the questionnaire for relevance. A pilot study was also conducted using the self-developed questionnaire.

3.10 Data Collection Procedure

The process of recruiting study participants and gathering data for a study is known as data collection (Grove *et al.*, 2019:286). According to Polit & Beck (2017:725), data collection protocols are the standard method that researchers use to facilitate the collection of data consistently. Before commencing the data collection process, an email was sent to the hospital managers of both Hospital A and Hospital B, asking for permission to do research within their facilities. Both hospitals granted the researcher access to the facilities on the grounds that the process had to be discussed with the nursing managers of the hospitals because within the Western Cape, at the time of envisaged data collection, COVID-19 restrictions were still in place. Hospital B gave the researcher immediate access. Hospital A being the larger hospital of the two, granted the researcher permission, but only on the condition that the researcher delay the process until a decline in the COVID-19 ward, admissions was noted.

This meant that in Hospital A, the data collection period commenced two weeks after that of Hospital B. Both hospitals although willing to have the research done in their facilities were adamant that the researcher should collect her own data as the nurses within the hospitals were stretched to capacity and there were no staff available to

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assist with the data collection process. This was agreed upon by the researcher who was then able to move on to the next phase of the data collection process. The researcher attended a unit management meeting at both Hospital A and Hospital B to discuss the process that would be followed in the collection of the study data. The managers were informed that as per the request of the hospital nursing managers the researcher would collect the data on both day and night duty periods. The unit managers were allowed to ask questions regarding the data collection procedure so that there was no uncertainty regarding the process. At the unit management meeting, it was agreed that the researcher was allowed to enter the units to proceed with data collection.

The researcher attended the ward handover during the early morning, midmorning, and nightshift handovers to discuss the research protocol and the purpose of the research with the nursing staff. The questionnaire and consent forms were handed to the registered nurses and a sealed research box was left at the nursing station for them to deposit their sealed questionnaires into when completed. The sealed research boxes were emptied every Friday so that the researcher could track the return date of the questionnaires. The data collection period was run from August 2021 to September 2021. The timeframe chosen provided the researcher with sufficient time to collect the data from both day and night duty staff.

Additionally, the medical units that were strictly for COVID-19 patients and PUI (patients under investigation) were managed differently from the rest of the wards. The researcher had to adhere to strict COVID-19 regulations and protocols when accessing the wards where the data was collected. When it came to collecting data the questionnaires and the consent forms, had to be placed in a sealed brown envelope and left to stand for 48 hours before being collected. Alternatively, the researcher could scan the questionnaire and consent form to her e-mail address for further processing. These were the recommendations suggested by the IPC (infection prevention control) managers of both Hospitals A and B. A further recommendation also made to the researcher from the Infection Prevention and Control (IPC) manager was that surgical masks should be worn when working with the questionnaires and strict hand hygiene precautions should be followed. Due to the nature of the COVID-

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19 pandemic and the sensitivity of handling documents in a COVID-19 unit, the researcher opted to go into the units to collect data instead of having boxes left in the unit that could be an infection control concern.

3.11 Data Analysis

Grove *et al.* (2015:47) described data analysis as a process that reduces, organises, and gives meaning to data presented in a study. The data is described in terms of descriptive statistics in the form of frequency and percentages. A statistician was consulted regarding this process. The statistical package used by the biostatistician for the data analysis process was STATA version 17.

Coding process: After the collection of all the questionnaires, the researcher went through the process of coding the questionnaires. The questionnaires were manually coded, and a reference was added to each questionnaire; for example, LAS 001 would have been the first reference code used on a questionnaire. All the other questionnaires received reference codes and once the questionnaires received a reference code, it was then ready to be entered into the excel spreadsheet. The researcher went through a process of coding the variables of the questionnaire. This was done by giving a code of either 1 or 2 for the variables, for example, a female would be 1 and a male would be 2 and if there was any missing data it would have been left blank on the spreadsheet so as to exclude that data.

Entering of data process: The data collected from the study was entered on a Microsoft Excel spreadsheet in its coded format. Each row represented a participant's data, and each column represented a variable. The row lined on the vertical plane would have the reference code first and then the codes of the various variables. Along with the horizontal plan it was labelled as per the N=70 respondents from references code LAS 001 to reference code LAS 070. Each of the vertical rows would have the results as coded from the respondents questionnaire. Once the process of entering all the data was completed, the researcher then moved on to the step of cleaning-up the data and checking it.

Data cleaning process: This process is very important, due to the fact that if the data is entered incorrectly on the Excel spreadsheet, then the results will be skewed. For

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this study, the researcher checked the questionnaires against the data that was entered in the Excel spreadsheet, to ensure that the data was captured correctly.

Section C consisted of an open-ended question which did not follow the typical qualitative design permitting the researcher to analyse the data according to identified categories. A total of 42 respondents responded to section C of the questionnaire. Consequently, the data was captured on an Excel spreadsheet which allowed the researcher to read and re-read the verbatim responses of the respondents, highlighting key words and putting them into categories. The identified categories were recorded according to the number of repetitions of what the respondents had said.

3.12 Summary

Chapter 3 outlined the aim and objectives of the study and discussed the research methodology. A self-administered questionnaire was used to collect the study data which was conducted in two private hospitals in the Cape Metropole area. The results of the data that was analysed is presented in Chapter 4.

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CHAPTER 4

DATA RESULTS AND DISCUSSION OF FINDINGS

4.1 Introduction

Chapter 1 provided an overview of the study as it introduced the reader to the background, the problem statement and the rationale for the research. Chapter 2 consisted of an in-depth literature review focusing on the various components of the study.

Chapter 3 delved into the methodology of the research study and elaborated on the research design. This chapter presents the empirical results, as collected from the respondents and discusses the findings accordingly. The descriptive statistical results are presented in this chapter, after which a discussion will follow.

4.2 Data Collection Response

The estimated sample size of the study population was 95 respondents as calculated and discussed with the statistician. Due to the data being collected in the 2nd wave of the COVID-19 pandemic and the fact that the hospital staffing numbers fluctuated daily, only 90 questionnaires were distributed.

Of the 90 questionnaires that were distributed only 70 were returned. Of the 70 returned questionnaires, 11 were incomplete. A decision was made to remove the 11 questionnaires that had more than 50% of the total questions not completed. A total of 59 questionnaires was thus included for data analysis for this study, yielding a response rate of 66%, (59/90 x 100 = 66%). As expressed in Grove *et al.* (2018:356) the response rate should be above 50% for the data to be representative of the sample.

Ultimately, 59 questionnaires were analysed, and it was noticed that in some parts of the data tables there was a fluctuation from n=59 to n=55 due to the sections of the questionnaire that may not have been completed by the respondents.

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4.3 Section A: Demographical Data

Table 4.1 below depicts the demographical data results.

Table 4.1: Demographical Data

Gender	Frequency (n)	Percentage (%)
Male	5	9
Female	53	91
Age	**Frequency (n)**	**Percentage (%)**
21 - 30	16	28
31 - 40	19	33
41 - 50	14	24
51 - 60	7	12
Above 60	2	3
Basic nursing qualification	**Frequency (n)**	**Percentage (%)**
Bridging course diploma	30	52
4-year diploma	12	20
4-year degree	15	26
Master of nursing science	1	2
Years of service	**Frequency (n)**	**Percentage (%)**
Less than 1 year	5	8
1 – 5 years	21	36
6 – 10 years	15	26
11 – 20 years	13	22
21 – 25 years	0	0
More than 25 years	5	8
Ward	**Frequency (n)**	**Percentage (%)**
Medical	19	34
Surgical	37	66

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As noted from the data in Table 4.1 (above) the majority of the respondents are females 91% (n=53), while 33% (n=19) of the respondents are between 31 to 40 years of age. A further 28% (n=16) were between the ages of 21 and 30 years old, with a minority of 3% (n=2) being over the age of 60. Regarding the qualifications of the respondents, 52% (n=30) have a Bridging course qualification, whilst 26% (n=15) indicated that they have a 4-year nursing degree and 20% (n=12) have a 4-year nursing diploma qualification. Finally, only 2% (n=1) of the respondent's hold a master's degree in nursing. The respondents also had to report on their years of service and these results showed that 8% (n=5) have less than 1 year of service with the hospital and the highest result recorded was 36% (n=21) with 1 to 5 years' service. Furthermore, 34% (n=19) of the respondents work in the medical unit whilst 66% (n=37) work in the surgical units. In summary, the majority of the respondents are females who have a bridging course qualification and are working within a surgical unit.

4.4 Section B: Barriers and enablers related to the implementation of the nursing process

The results were obtained from 59 respondents who completed the self-administered questionnaire. This section explored the barriers and enablers related to the implementation of the nursing process.

4.4.1 Time

Time as a possible barrier or enabler for the implementation of the nursing process is depicted in Table 4.2. This section consists of four items to which respondents had to answer yes or no.

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Table 4.2: Time results

No.	Item	Yes – n (%)	No – n (%)
6.1	The use of the nursing process in the delivery of patient care is time-consuming.	44 (77%)	13 (23%)
6.2	Nursing process documentation is tedious (too long).	45 (78%)	13 (22%)
6.3	Nurses do not have enough time to implement the different phases of the nursing process.	46 (78%)	13 (22%)
6.4	The nursing process implementation does not affect the nurses time.	25 (44%)	32 (56%)

The majority of respondents 78% (n=45) indicated that the nursing process documentation was tedious and that nurses did not have enough time to implement the various steps of the nursing process, 77% (n=46) indicated that the use of the nursing process in delivering patient care is time-consuming while 44% (n=25) indicated that the nursing process implementation did not affect the nurse's time.

4.4.2 Training

Training was explored as a potential barrier or enabler for the implementation of the nursing process in this section. Table 4.3 (below) has four items, each of which required respondents to answer yes or no to the question.

Table 4.3: Training results

No.	Item	Yes - n (%)	No - n (%)
6.5	When changes are made to the nursing process documents, training is provided to implement the changes.	37 (63%)	22 (37%)
6.6	Training on the use of the nursing process is done by the training department in the hospital.	40 (69%)	18 (31%)
6.7	I received training on how to implement the 5 phases of the nursing process.	45 (76%)	14 (24%)
6.8	Implementing the nursing process can act as a good teaching tool, thus enabling its use.	54 (93%)	4 (7%)

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The majority of the respondents 93% (n=54) indicated that implementing the nursing process can be a good teaching tool, thus enabling its use. Furthermore, 76% (n=45) reported that they received training on the 5-phases of the nursing process. Additionally, 69% (n=40) of the respondents indicated that the training department provided training in the hospital on the nursing process and a further 63% (n=37) indicated that when changes were made to the nursing process, training was provided.

4.4.3 Knowledge

This section explores knowledge as a potential barrier or enabler for implementing the nursing process. Each of the five items in Table 4.4 (below) required respondents to answer yes or no to the question.

Table 4.4: Knowledge results

No.	Item	Yes - n (%)	No - n (%)
6.9	I know how to implement the nursing process.	56 (97%)	2 (3%)
6.10	I received the knowledge of the nursing process implementation from college, workshops, seminars, university.	51 (88%)	7 (12%)
6.11	I need more information and tutorials to practise the implementation of the nursing process.	30 (52%)	28 (48%)
6.12	The nursing process enables me to apply my nursing knowledge in the care of patients.	54 (95%)	3 (5%)
6.13	Identification of the priority care needs related to the patient is easy when using the nursing process.	55 (95%)	3 (5%)

The majority of the respondents 97% (n=56) indicated that they know how to implement the nursing process. While 95% (n=54) of the respondents have indicated that the nursing process enables them to apply nursing knowledge in the care of patients. A further 88% (n=51) indicated that they have received the knowledge of the nursing process implementation from sources such as a college, workshops, seminars or university. More than half, 52% (n=30) of the respondents indicated that they felt they would need more information and tutorials to practice the implementation of the nursing process.

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4.4.4 Management/Organisational Support

This section examines management/organizational support as a potential barrier or enabler to the nursing process implementation. Each of the four questions in Table 4.5 asked the responders to respond with a yes or no to the questions.

Table 4.5: Management/Organisational Support results

No.	Item	Yes - n (%)	No - n (%)
6.14	Hospital management do not understand the nursing process.	20 (35%)	37 (65%)
6.15	Hospital management recognizes the nursing process as a framework for the delivery of quality nursing care.	51 (86%)	8 (14%)
6.16	The nurse-to-patient ratio (number of nurses on duty in relation to number of patients) enables the implementation of the nursing process.	29 (49%)	30 (51%)
6.17	The management supplies the relevant resources (policies, work procedures, guidelines, and posters) needed to enable the implementation of the nursing process.	46 (78%)	13 (22%)

86% (n=51) advised that the hospital management recognized the nursing process as a framework for the delivery of quality nursing care while 78% (n=46) of the respondents expressed that the management supplied them with the relevant resources (policies, work procedures, guidelines, and posters) that enabled them to implement the nursing process. Finally, only 49% (n=29) of the respondents (less than half of the study population) indicated that the number of nurses on duty in relation to the number of patients enabled them to implement the nursing process.

4.4.5 Staffing Resources

This section looks at staffing resources as a potentially significant barrier or enabler for implementing the nursing process. The respondents were asked to answer yes or no to each of the four questions in Table 4.6 below.

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Table 4.6: Staffing resources

No.	Item	Yes - n (%)	No - n (%)
6.18	There is sufficient staff on duty to implement the nursing process.	11 (19%)	48 (81%)
6.19	Management ensures adequate resources (staff) are on duty to implement the nursing process.	12 (21%)	46 (79%)
6.20	The experience of staff impacts the implementation of the nursing process.	56 (97%)	2 (3%)

The majority of the respondents 97%(n=56) felt that the staff experience impacted the implementation of the nursing process. Only 21% (n=12) of the respondents indicated that management ensured adequate resources to implement the nursing process. Lastly, 19% (n=11) of the respondents indicated that there are sufficient staff on duty to implement the nursing process.

4.5 Discussion about Demographical Data

According to a report published by the South African Nursing Council (SANC) for the period 2021, in the Western Cape, there are 16,620 females (91%) versus 1,581 males (9%) who are registered on the SANC roll (SANC STATS, 2021:np) The Department of Statistics: South Africa published that the South African population, comprises 51% females and 49% males. The result of this study indicating that 91% (n=53) of nurses are females, is congruent with the SANC and the Department of Statistics results. The demographical data regarding gender is consistent with nursing as a female dominated profession. The SANC statistics as of 31st December 2021, identified that the majority of registered nurses 27% are between 50 and 59 years old and 26% are between 40 and 49 years old with a smaller group of 21% being between the ages of 30 to 39 years old. A minority of 6% of the registered nurses are under the age of 30 years old (SANC STATS, 2021:np). The age range of the respondents in this study was between 21 and 50 years old, with the majority 33% (n=19) being in the age range of 31 to 40 years old. The findings of this study regarding the ages of the respondents are in line with the SANC statistics.

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Roets, Bothma & Grobler (2016:423-424), reported that the bridging course program was established to aid the enrolled nurse to bridge by obtaining a registered nurse title. The majority of the respondents for this section of the study being 52% (n=30) are Bridging course candidates, whereas 26% (n=15) of the respondents hold a 4-year degree qualification.

The high percentage of bridging course candidates employed in the clinical areas where the study took place could be because it has a Nursing College attached to it and the respondents would have studied at the nursing college and were then offered hospital posts.

The majority of the respondents, 36% (n=21) have between 1 to 5 years' service and a further 26% (n=15) have between 6 to 10 years of service. Mahmoud *et al.* (2014:311) indicated that the demographic factors of nurses, such as age and years of work experience, had a substantial impact on the implementation of nursing processes. Ngao (2015:35), further stated that newly qualified nurses with experience of between 5 to 10 years are more likely to apply the nursing process and that these findings could be attributed to young nurses positive attitude toward the nursing process.

4.6 Discussion pertaining to the barriers and the enablers related to the implementation of the nursing process

Various authors discuss time as a barrier (Jooste *et al.,* 2010:94; Abebe *et al.,* 2014:5; Mahmoud *et al.,* 2014:309; Julie *et al.,* 2017:14; Mutshatshi *et al.,* 2020:3–4), all of whom present the argument that a lack of time hinders the implementation of the nursing process. Mamseri (2012:87), reported in a study conducted in Tanzania that 71% (n=85) of the respondents mentioned time as a constraining factor when trying to implement the nursing process. Similarly, Mahmoud *et al.* (2014:305), in a study conducted in Saudi Arabia, reported that 68% of the respondents felt that implementing the nursing process was time-consuming and did not allow performing vital nursing duties.

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Okaisu *et al.* (2014:2) stated that the documenting of care in the nursing process consumes up to 50% of the nurse’s time. In this study, the question which looked at the nursing process being time-consuming showed that 77% (n=44) agreed with the statement that it was time consuming, which is in line with the studies presented above. These results can be viewed in combination with the 78% (n=46) reply to the question indicating that nurses do not have enough time to implement the various phases of the nursing process. A 78% (n=45) responded positively to the statement that the respondents of this research study find the nursing process documentation tedious (too long).

That finding is supported in a qualitative article written by Jooste *et al.,* (2010:94) where the respondents indicated that their workload resulted in them having very little time to write care plans for all their patients. Mutshatshi *et al.* (2018:3), conducted a qualitative study in Limpopo where one of the respondents commented that it took more than an hour to complete one patient’s admission documents, which agrees with the current study’s findings.

Training is an essential component as it enables the respondents to implement the nursing process, but a lack of training could potentially be viewed as a barrier to the implementation of the nursing process. Training as a barrier has been highlighted in studies such as a quantitative study by Abdelkader *et al.* (2017:81) that showed that 63% (n=63) of the respondents lacked sufficient information to implement the nursing process. The respondents in this study felt that they did not have sufficient information concerning the implementation of the nursing process which could speak to the training received or the lack of training received on the process. These results are contrary to the results of this study as 76% (n=45) of the respondents indicated that they had received training on the nursing process and a further 63% (n=36) indicated that when changes were made to the nursing process, training was provided on those changes. Mahmoud *et al.* (2014:306) indicated that 96% of the study respondents had received theoretical and practical training in the hospital and felt that they were better equipped to implement the nursing process.

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Training does equip nurses to implement the nursing process, as shown by 76% (n=45) of the respondents, who reported that they had received training on implementing the 5-steps of the nursing process; 93% (n=54) responded to the section pertaining to training that indicated that implementing the nursing process can act as a good teaching tool; thus, enabling its use. These findings are congruent with a study conducted by Mahmoud *et al*. (2014: 308), where 95% of the study respondents indicated that the nursing process was indeed a good teaching tool, as it allowed for continuous teaching and learning.

Knowledge pertaining to the nursing process is a concept that is derived from training received in the field. Ida Jean Orlando averred that nurses are vital to patients' wellbeing, which means that a nurse should have knowledge of the problem that their patient is presenting with and on how to address that need (George, 2002:206-207). This component of the theory supported the fact that knowledge is an essential component of implementing the nursing process. Shewangizaw *et al*. (2015:48) in their quantitative study conducted in Ethiopia reported that nurses who know how to implement the nursing process are 8.87 times more likely to implement the nursing process. This shows the importance of knowledge when it comes to implementing the nursing process.

Similarly, in this study, the majority of the respondents 95% (n=54) indicated that the nursing process enables nurses to apply their knowledge in caring for patients; 97% (n=56) of the respondents in this study indicated that they knew how to implement the nursing process. Mahmoud *et al*. (2014:305-306) stated that 94% of respondent's received knowledge from undergraduate studies, 97% practised integration and 93% benefited from in-hospital training. These results are congruent with the current study as 88% (n=51) of the respondents indicated that they had received the knowledge of the nursing process from college, workshops, seminars and university. The findings from this study showed that 52% (n=30) of the respondents felt that they needed more tutorials to practise the implementation of the nursing process. This result is congruent with Mamseri (2012:12), who proposed that respondents seem to lack confidence when implementing the nursing process shown by a 53% (n=63) response rate, who

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said that they understood the nursing process but found it difficult to implement it, leaving them feeling unsure and confused.

The management of an institution plays a vital role in the implementation of the nursing process. Rajabpoor *et al.* (2018:141) stated that 90% of the study respondents reported that a lack of continuous control and monitoring from management is considered a significant barrier. Rajabpoor *et al.* (2018:141) proposed that managers should find an appropriate way to promote the implementation and use of the nursing process. to promote. The study reported that 78% (n=46) of the respondents indicated that management supplied relevant resources for the implementation of the nursing process; which is contrary to the study of Rajabpoor *et al.* (2018:141).

A response of 86% (n=51) indicated that hospital management do recognise the nursing process as a framework for the delivery of patient care. Hagos *et al.* (2014:7) observed that 47% (n=94) of their respondents believed that the hospital's administration supported the use of the nursing process.Hagos *et al.* (2014:7) findings concurred with the findings of this study where 86% of the respondents agreed that management does recognise the nursing process as a framework for the delivery of patient care. Meyer *et al.* (2009:9) stated that a management organization's, namely the unit manager of a clinical unit, is in a position to empower nurses to implement the steps of the nursing process by supporting them and identifying any areas of concern and addressing those areas.

This aligns with the current study where the majority, 78% (n=46) of the respondents agreed that management should provide the relevant resources (policies, work procedures, guidelines, and posters) needed to enable the implementation of the nursing process. However, 51% (n=30) indicated that management does not manage the nurse-to-patient ratio effectively, which does not enable the nurses to implement the nursing process. Although, staffing is an expensive resource, it is a vital one, as the staff of a clinical unit are the ones who should have the knowledge and the right level of skill and experience to deliver quality patient care (Meyer *et al.*, 2009:216). The majority of this study's respondents being 81% (n=48) reported that they do believe that there is insufficient staff on duty to implement the nursing process.

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This finding is in line with Mamseri (2012:97), who reported that 79% of her respondents stated that a lack of staffing hinders the implementation of the nursing process. This was further substantiated in a qualitative study conducted by Jooste *et al.* (2010:94), in a gynaecology ward in Namibia, which documented that one respondent had said that "*one of the main reasons for the nursing process not utilised are staff shortage*".

Additionally, 79% (n=46) of the respondents in this study reported that the management did not supply the wards with adequate resources such as staff. This finding is supported by Akhtar *et al.* (2018:185) where it was reported that the management should provide sufficient staff for nurses to implement the nursing process. Finally, staffing as a resource yielded a 97% (n=56) response as the respondents felt that the experience of the staff impacted the implementation of the nursing process.

4.7 Section C: Recommendations to support the implementation of the nursing process

Section C included one open-ended question which permitted the registered nurses to make recommendations, that would strengthen the implementation of the nursing process. The recommendations from the respondents were divided into categories and reported on. These categories are presented in Table 4.7 below, as well as the respondents' recommendations.

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Table 4.7: Categories and recommendations taken from the open-ended question

Categories	Recommendations taken directly from the questionnaires. These are some examples of the recommendations in Section C.
Time	"The nursing process is ridiculously long and is a duplicate of words that are not all needed, and it is time-consuming, WE DO NOT HAVE TIME!" (LAS 002) "A proper nursing process is an amazing nursing tool, but the amount of time it takes to write all the steps is prohibitive." (LAS 023) "I recommend a booklet of long and short stay patient where all documentation is put together in one. This prevents loose papers which often get lost, which is even more time consuming." (LAS 027)
Training	Nursing management need to do in-service training whenever changes of paperwork/ nursing process/care plans … Sometimes nurses have to find their way to learn new paperwork." (LAS 0045) Continuous training and updates on the nursing process. Mentorship on applying the nursing process." (LAS 065)
Staffing	"I think less writing can make us nurses better able to put more focus on our patients." (LAS 031) "The nurse-patient ratio should be allocated according to patient acuity." (LAS 005) "Evaluation of skill mix." (LAS 040) "Staff shortage and workload will always affect the nursing process yet to implement good nursing process will enable good nursing standard yet practically it's not always easy …" (LAS 037) "There is never enough staff on duty, so the nurse-to-patient ratio never balances, GET MORE STAFF!" (LAS 002) "Adequate staff more permanent staff, rather than the agency, as the agency (not all) tends to not take on as much responsibility as permanent staff." (LAS 033)

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Management support/organisation	“Can we go paperless and start using digital devices.” (LAS 034) “Less paperwork.” (LAS 005) “Reduce the paperwork, spend more time with the client.” (LAS 032) “Documentation to be paperless if possible.” (LAS 040) “Management to pay attention to the acuity of the patient …” (LAS 030) "Policies and guidelines should be readily available, especially for newly qualified staff, refresher courses should be given annually." (LAS 022)
Knowledge	“Ask question if you are not sure,” (LAS 003) “More staff who are well trained to implement the nursing process.” (LAS 053) “The problem arises with new staff, busy days - there is no time to teach”. (LAS 001)

4.8 Summary

Chapter 4 provided an overview of the empirical data and a discussion of the findings obtained from the self-administered questionnaire. Descriptive statistics were used to aid in the reporting of the data. The data that was extracted from the self-administered questionnaire was used to answer the research question which is: “What are the barriers and enablers to the implementation of the nursing process?” The findings of the data analysis section were discussed, highlighting what the barriers and enablers are, as presented from the study data. Lastly, the open-ended question was analysed, and the recommendations from the study participants were presented and will be further discussed in Chapter 5.

Chapter 5 provides recommendations for practice, education and research, based on the study findings and a discussion of the limitations.

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CHAPTER 5

DISCUSSION, RECOMMENDATIONS AND SUMMARY

5.1 Introduction

Chapter 4 outlined the data that was analysed for the study. Chapter 5 allows the researcher an opportunity to discuss how the study objectives were met and if there were any limitations to the study. Furthermore, Chapter 5 creates an opportunity for recommendations to be made, based on the data findings.

5.2 Conclusion of the Study

The aim of the study was to explore and describe the barriers and enablers to the implementation of the nursing process amongst nurses in two private hospitals in the Cape Metropole area.

The following research objectives were dealt with in the study:

- Explore and describe the barriers related to the implementation of the nursing process.
- Explore and describe the enablers related to the implementation of the nursing process.
- Identify the recommendations to support the implementation of the nursing process.

5.3 Limitations of the Study

Grove *et al.* (2018:410) described research constraints as limitations or obstacles in a study that may limit the generalizability of the findings. Since only two hospitals from the same hospital group participated in the experiment, the study had a limited sample size. The findings can therefore not be generalised to public hospitals or other hospitals in the various regions of the private group used in this study.

At the time of data collection, the private institution where the study took place, were going through a process of implementing the Protection of Personal Information Act (POPIA). This meant that all the personal information of respondents employed in the

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company were not to be distributed without their prior consent. The researcher made enquiries with the company's chief information officer who was very firm about the POPIA Act and the fact that personal emails and cell phone numbers could not be distributed if the employee did not sign a consent, allowing the company to share this information.

The researcher also investigated using the respondents company email addresses. However, after further investigation, it became apparent that the nurses in the company do not use or even access their company email addresses. Therefore, the researcher did not use an online questionnaire but proceeded with a manual data collection process

Although the response rate was 66% for the study, and yielded sufficient data for analysis, a higher response rate would have added more significance to the generalization of findings of the study. Furthermore, the number of incomplete sections noted and reported in four of the questionnaires, could have yielded additional information to the overall results of the study.

5.4 Objectives 1 and 2: Explore and describe the barriers and enablers related to the implementation of the nursing process

Objective 1 and 2 of this study were to explore and describe the barriers and enablers related to the implementation of the nursing process.

The findings of Table 4.2 highlighted time as a barrier, where the majority of the respondents (78%, n=46) indicated that they did not have enough time to implement the various phases of the nursing process. This result could indicate that the respondents were aware that they should implement all the phases of the nursing process but that sometimes, there was not enough time to do so. The indication from the respondents stating that the nursing process is tedious (too long) with a 78% (n=45) response, could be a reason why the nursing process was not implemented because of the length of the process.

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The findings pertaining to training indicated that 93% (n=54) of the respondents felt that the implementation of the nursing process could act as a good teaching tool thus enabling its use. These findings were consistent with the study by (Mahmoud *et al.*, 2014:308) which was reported in Chapter 2. Mahmoud *et al.* (2014:308) concurred that the nursing process was a good teaching tool. Training from the data analysed can be viewed as an enabler to implementing the nursing process. The section on knowledge showed that 97% of the respondents indicated that they had knowledge of how to implement the nursing process, which is in line with Mahmoud *et al's* study that was reported in Chapter 2 (Mahmoud *et al.,* 2014:311). The respondents felt that knowledge was a key facilitator towards implementing the nursing process. The knowledge of the respondents related to the nursing process was highlighted in two significant results in two different sections of the study; both with a 95% response.

The first question reported a 95% response to the question asking whether the nursing process enables nurses to use their knowledge in caring for patients, while the second question that also had a 95% response asked whether prioritising the care of a patient is easy when using the nursing process. The knowledge section of the questionnaire indicated that having knowledge is an enabling factor in implementing the nursing process. If nurses know how to implement the nursing process and the value of using all 5-steps of the nursing process, then they would be more likely to implement all the steps. This study reported an 86% response to the statement that management recognised the nursing process as a framework for the delivery of patient care and 78% also indicated that management does provide resources to enable the implementation of the nursing process.

The overall response to the section of the questionnaire related to management indicated that management support is an enabler which can be seen from the data results. This is contradictory to several other studies where respondents felt that management was not supportive of the nursing process and its implementation (Umutesi, 2017:45; Jooste *et al.,* 2012:94; Mahmoud *et al.,* 2014:310).

Finally, in this chapter, staffing was alleged to be a barrier as the results indicated that only 19% of the respondents felt that there were sufficient staff on duty to implement

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the nursing process, which means that 81% felt that there were not enough staff on duty to implement the nursing process. In Chapter 2 of the literature review Mamseri (2012:95) concurred by proposing that a lack of staffing hindered the implementation of the nursing process.

5.5 Objective 3 - Recommendations to support the implementation of the nursing process

The open-ended question created an opportunity to establish what the recommendations would be from the study respondents in terms of addressing the barriers and enablers to implementing the nursing process. The question was, "*Do you have any recommendations to strengthen the implementation of the nursing process?"* The analysis showed that the recommendations were divided into five categories which aligned with the literature review. The five categories were; time, training, knowledge, staffing and management support. Below are some of the recommendations that were made: Table 4.7, in Chapter 4 displays the recommendations and below, the recommendations are discussed in greater detail.

Time: One of the most valuable resources in the health care setting is the amount of time that the health care professional has at his or her disposal (Jooste, 2011:136). the management of one's time is dependent on the resources that are available to the nurse on the floor and one must understand the frustration they experience due to the lack of time.

The respondents recommended that booklets be published and distributed for short and long stay patients, so that there are less loose pages which if lost take up the nurses time when they have to look for it. Another respondent mentioned that the nursing process was an amazing tool, but that it had too many steps. Respondent LAS 002 in frustration wrote part of the recommendation in capital letters stating that, "*the nursing process was ridiculously long with too much duplication of words*". Reading these responses, it can be deduced that the many documents and loose papers which make up the nursing process are time consuming and that the nurses feel burdened by the volume of work they have to do in the limited time they have; which leaves them with less time to spend with their patients.

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Training: Training has changed over the years due to the evolving health care needs of patients. Training should be a key focal point within every healthcare setting and be a priority in order to maintain high standards of care and patient safety. As discussed in Geyer *et al.* (2021:30) training should be geared towards upskilling nurses in providing safe, evidence-based quality nursing care. It remains the responsibility of the management in the clinical setting to make sure that regular training is offered to nursing personnel on the nursing process and the application and use of all the components and documents that make up the nursing process.

Respondents acknowledge the benefits of the nursing process and mentioned in their recommendations that: "*continuous training and updates on the nursing process and added mentorship on the application of the nursing process is needed*". This recommendation is important and valuable; mentors can be a valuable resource in clinical practice. They can guide new nurses and students in the application and value of the nursing process. Having mentors could reduce the frustration experienced by nurses in terms of applying the nursing process and improving the implementation. Registered nurses are aware of the need to train staff but do not have the resources to do so due to the demands of caring for patients and performing requisite nursing tasks.

Knowledge: Sir Francis Bacon published a quote in 1957 stating, "*knowledge itself is power*". The respondents in Table 4.7, recommended that staff should be trained in implementing the nursing process. New staff who arrive in the various wards do not have adequate training to provide them with the necessary knowledge regarding the steps of the nursing process and it would be advisable for new staff to be given training in the form of ward orientation or a buddy system.

Another recommendation that one of the respondents made was that nurses should ask questions when they are not sure of something. In some cases, nurses may not feel confident enough to ask for help, which would mean that if they have limited knowledge of implementing the nursing process, they would not be able to perform the required task. In such cases ward orientation and a buddy system would assist nurses to feel more comfortable about asking questions when they are not sure what to do.

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Staffing: According to Jooste (2011:96), the right number of nurses within the ward at any given time can affect the efficiency and effectiveness of implementing the goals of the organisation. A clear goal in health care is making sure that the patients' needs are met and that nurses are able to work safely while provide good quality care. There is great awareness from the respondents of this study that due to staffing shortages they are unable to perform all tasks. The respondents recommended better nurse-to patient ratios and that patient acuities should be observed when planning one's staffing for the day. Respondents also recommended that the skill mix of the staff in a unit should be evaluated and that it is important to have enough staff of the right skill mix in the ward to perform the required tasks that would ensure patient safety and adequate patient care.

Along with adequate staff another key point that was made by the nurses was that the hospitals should either employ more permanent staff or invest in permanent agency staff. As an example, in an article by Jooste & Prinsloo (2013:1) they reported that agency nurses affiliation to hospitals is short term and often agency nurses lack commitment to the hospitals' working standards. Similarly, Senek, Robertson, Ryan, King, Wood & Tod (2020:6) reported in their article on *'care left undone',* that a high level of agency staff usage increases the chances of incomplete work. These articles support what was reported in Table 4.7 and 5.1 under the category staffing where a respondent wrote, "*Adequate staff. More permanent staff. Rather than agency as agency staff tend to not take as much responsibility."*

Management support/Organisation: The management of any organisation plays a vital role in addressing concerns regarding barriers or enablers to the nursing process. Geyer *et al.* (2021:31) explained that there should be transformative leadership when one is building a reliable healthcare system. Managers should have vision and be innovative. The respondents made several recommendations that were noted in Table 4.7, highlighting that management should consider going paperless and moving towards a digital platform. This recommendation should be strongly considered by hospital management because if there is one thing that the COVID-19 pandemic has taught us, it is that the use of paper is not always best practice. Better management visibility was another recommendation. If managers were visible to their staff in clinical

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practice and assisted more with assessing patient acuity and engaged with their staff around objectives of improving the implementation of the nursing processes, they might be more inclined to invest in implementing the nursing process in spite of the obstacles in the way.

Furthermore, it was also recommended that management should pay attention to the patient acuity. That ties in with one of the recommendations that was made regarding staffing. There is an overlap when one looks at staffing in a ward and in fact management should play a vital role in ensuring that patient acuity is taken into consideration when planning staffing for the day. If the management were more involved in the day to day running of the wards and more visible in the wards, this could enable staff to be more devoted to implementing the nursing process and the management would then experience first-hand the concerns that nurses have regarding patient acuity and the paperwork they have to complete within the nursing process. Respondents also recommended that there be ward specific nursing process documents as different wards have different types of patients who all have different needs. This was an interesting recommendation as perhaps one would then wonder whether the nurses really understood the nursing process. Nurses seem to link the steps of the nursing process to the documentation they are handling and the volume of documents which is often overwhelming.

5.6 Recommendations

Based on the data analyses and the findings from this study recommendations will be made below regarding nursing education, nursing practice and recommendations for future research.

5.6.1 Recommendation for nursing education

The basic principles of the nursing process should be taught at the undergraduate level and be offered as a refresher module in post-graduate studies. The module should focus on the implementation of the various steps of the nursing process and the importance of implementing all phases as thoroughly as possible. Nurse educators/lecturers should continuously engage learners in the implementation of the nursing process and the benefits it offers regarding quality patient care. Nurses who

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already work in clinical practice should attend training sessions regularly to reinforce the importance of the nursing process and emphasise why all the steps should be implemented. This could be in the format of short learning programs, nursing orientation, in-service training or continuous professional development workshops. Clinical training specialists and unit managers should engage staff in on-the-spot training, to guide staff in the implementation of the nursing process.

5.6.2 Recommendations for nursing practice

Nursing management should assess the nurse-to-patient ratio, the skills mix and the experiences of the staff in the wards. Managers should also show greater involvement in understanding patient acuity which affects the staff-to-patient ratio.

Clinical audits are helpful in establishing whether nurses are implementing the nursing process. A good practice would be to audit nursing documentation; specifically looking at how the nursing process is being implemented and to see if all 5-steps of the nursing process are being followed. It would also be advisable for nurses in clinical practice to assess the volume of documents that constitute the nursing process and assess the necessity of the documents. The presence of clinical training specialists and management on the clinical floor doing on-the-spot training and motivating the staff to work by implementing all steps of the nursing process would be an enabling factor.

5.6.3 Recommendations for future research

To better understand the barriers and enablers to the implementation of the nursing process, it would be advisable to do a qualitative study which would elicit richer data by addressing the lived experience that nurses encounter when implementing the nursing process.

5.7 Dissemination

The researcher will submit the dissertation to Stellenbosch University for it to be accessible on the university database. Furthermore, the thesis findings will be communicated to the institutions that were part of the study, in the form of a presentation delivered by the researcher. The researcher will also present her findings

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on research days and will endeavour to publish at least one article in a reputable journal.

5.8 Summary

Chapter 4 was a presentation of the data findings and analysis while Chapter 5 was focussed on a discussing of the findings. The data analyses barriers and enablers related to the implementation of the nursing process were identified and discussed. Respondents also made suggestions in the open-ended question section for possible mitigation of the common barriers that were identified. The study found that time is a huge barrier when it comes to implementing the nursing process and often it is time related to all the aspects/documents that make up the nursing process. In the open-ended question one of the respondents was quite clear that they did not have enough time. Staffing was also a barrier that came through clearly from the data. The point of staffing and staffing levels is a concern that has been highlighted over many years and can be seen in the literature. The respondents of the study further elaborated, saying that training was a clear enabler, and that the management should enable the implementation of the nursing process through providing more training and resources.

Future research should focus on a qualitative study using focus groups and an interview strategy to gain richer data for understanding the barriers and enablers that nurses experience; expressed in their own words.

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ANNEXURES

ANNEXURE 1- Questionnaire

Questionnaire

Study Title: Barriers and enablers to the implementation of the nursing process amongst nurses in two private hospitals in the Cape Metropole area.

Aim of the study: To explore and describe the barriers and enablers to the implementation of the nursing process amongst nurses in two private hospitals in the Cape Metropole area.

Instructions:

- Please complete **ALL** relevant sections as indicated on the questionnaire with the use of an (x).
- If an error is made, you may delete the error by drawing a line through it and then marking the relevant answer that you had intended to mark.
- This is not a test and therefore there is no right or wrong answer.
- Time spent on this questionnaire should be approximately 15 minutes.
- Your participation in this study is viewed as 'anonymous' hence no need to add any personal details to this form.
- Please place the completed questionnaire in the research box situated at the nurse's station.

SECTION A

Demographical data

1.	**Gender**	*Mark with x*
1.1	Male	
1.2	Female	
1.3	Other	

2.	**Age**	*Mark with x*
2.1	21– 30	
2.2	31-40	
2.3	41-50	
2.4	51-60	
2.5	Above 60	

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3.	**Basic nursing qualification**	*Mark with x*
3.1	Bridging course diploma	
3.2	4-year diploma	
3.3	4-year degree	
3.4	Master of nursing science	

4.	**Years of service**	*Mark with x*
4.1	Less than 1 year	
4.2	1 – 5 years	
4.3	6 – 10 years	
4.4	11 – 20 years	
4.5	21 – 25 years	
4.6	More than 25 years	

5.	**Current ward you are working in**	*Mark with x*
5.1	Medical	
5.2	Surgical	

SECTION B:

Please indicate by marking with an (x).

		Yes	No
This section will focus on the aspect of time:			
6.1	The use of the nursing process in the delivery of patient care is time-consuming.		
6.2	Nursing process documentation is tedious (too long).		
6.3	Nurses do not have enough time to implement the different phases of the nursing process.		
6.4	The nursing process implementation does not have effect on the nurses' time.		

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		Yes	No
This section will focus on the aspect training:			
6.5	When changes are made to the nursing process documents, training is provided to implement the changes.		
6.6	Training on the use of the nursing process is done by the training department in the hospital.		
6.7	I received training on how to implement the 5 phases of the nursing process.		
6.8	Implementing the nursing process can act as a good teaching tool thus enabling its use.		

		Yes	No
This section will focus on the aspect of knowledge:			
6.9	I know how to implement the nursing process.		
6.10	I received knowledge of the nursing process implementation from college, workshops, seminars, university.		
6.11	I need more information and tutorials to practise the implementation of the nursing process.		
6.12	The nursing process enables me to apply my nursing knowledge in the care of patients.		
6.13	Identification of the priority care needs related to the patient is easy when using the nursing process.		

		Yes	No
This section will focus on Management/Organisational Support:			
6.14	Hospital management does not understand the nursing process.		
6.15	Hospital management recognises the nursing process as a framework for the delivery of quality nursing care.		
6.16	The nurse-to-patient ratio (number of nurses on duty in relation to number of patients) enables the implementation of the nursing process.		
6.17	The management supplies the relevant resources (policies, work procedures, guidelines, and posters) needed to enable the implementation of nursing process.		

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		Yes	No
This section will focus on staffing resources:			
6.18	There is sufficient staff on duty to implement the nursing process.		
6.19	Management ensures adequate resources (staff) on duty to implement the nursing process.		
6.20	The experience of staff impacts the implementation of the nursing process.		

Section C

Do you have any recommendations to strengthen the implementation of the nursing process?

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ANNEXURE 2 - Ethics Approval - University of Stellenbosch

Approval Notice

New Application

07/06/2021

Project ID: 19494

HREC Reference No: S21/01/013

Project Title: Barriers and enablers related to the implementation of the nursing process amongst nurses in two private hospitals in the Cape Metropole area

Dear Mrs. Lesley-AnnSmith

The **response to modifications** received on 25/05/2021 21:33 was reviewed by members of **Health Research Ethics Committee** via **expedited** review procedures on 07/06/2021 and was approved.

Please note the following information about your approved research protocol:

Protocol Approval Date: 07 June 2021

Protocol Expiry Date: 06 June 2022

Please remember to use your Project ID 19494 and Ethics Reference Number S21/01/013 on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review

Translation of the informed consent document(s) to the language(s) applicable to your study participants should now be submitted to the HREC.

Please note you can submit your progress report through the online ethics application process, available at: Links Application Form Direct Link and the application should be submitted to the HREC before the year has expired. Please see *Forms and Instructions* on our HREC website (www.sun.ac.za/healthresearchethics) for guidance on how to submit a progress report.

The HREC will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Please note that for studies involving the use of questionnaires, the final copy should be uploaded on Infonetica.

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility, permission must still be obtained from the relevant authorities (Western Cape Departement of Health and/or City Health) to conduct the research as stated in the protocol. Please consult the Western Cape Government website for access to the online Health Research Approval Process, see: https://www.westerncape.gov.za/general-publication/health-research-approval-process. Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and instructions, please visit: Forms and Instructions on our HREC website https://applyethics.sun.ac.za/ProjectView/Index/19494

If you have any questions or need further assistance, please contact the HREC office at 021 938 9677.

Yours sincerely,

HREC 2 Coordinator

National Health Research Ethics Council (NHREC) Registration Number:

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ANNEXURE 3 - Extended Ethical Approval – Stellenbosch University

Approval Letter
Progress Report

08/06/2022

Project ID: 19494

Ethics Reference No: S21/01/013

Project Title: Barriers and enablers related to the implementation of the nursing process amongst nurses in two private hospitals in the Cape Metropole area

Dear Mrs L Smith

We refer to your request for an extension/annual renewal of ethics approval dated 04/06/2022 05:43.

The Health Research Ethics Committee reviewed and approved the annual progress report through an expedited review process.

The approval of this project is extended for a further year.

Approval date: 07 June 2022

Expiry date: 06 June 2023

Kindly be reminded to submit progress reports two (2) months before expiry date.

Where to submit any documentation

Kindly note that the HREC uses an electronic ethics review management system, *Infonetica*, to manage ethics applications and ethics review process. To submit any documentation to HREC, please click on the following link: https://applyethics.sun.ac.za.

Please remember to use your Project Id 19494 and ethics reference number S21/01/013 on any documents or correspondence with the HREC concerning your research protocol.

Please note that for studies involving the use of questionnaires, the final copy should be uploaded on Infonetica.

Yours sincerely,

Ms [redacted]
Coordinator: Health Research Ethics Committee 2 (HREC 2)

National Health Research Ethics Council (NHREC) Registration Number:
REC-130408-012 (HREC1)•REC-230208-010 (HREC2)

Federal Wide Assurance Number: 00001372
Office of Human Research Protections (OHRP) Institutional Review Board (IRB) Number:
IRB0005240 (HREC1)•IRB0005239 (HREC2)

The Health Research Ethics Committee (HREC) complies with the SA National Health Act No. 61 of 2003 as it pertains to health research. The HREC abides by the ethical norms and principles for research, established by the World Medical Association (2013). Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects; the South African Department of Health (2006). Guidelines for Good Practice in the Conduct of Clinical Trials with Human Participants in South Africa (2nd edition); as well as the Department of Health (2015). Ethics in Health Research: Principles, Processes and Structures (2nd edition).

The Health Research Ethics Committee reviews research involving human subjects conducted or supported by the Department of Health and Human Services, or other federal departments or agencies that apply the Federal Policy for the Protection of Human Subjects to such research (United States Code of Federal Regulations Title 45 Part 46); and/or clinical investigations regulated by the Food and Drug Administration (FDA) of the Department of Health and Human Services.

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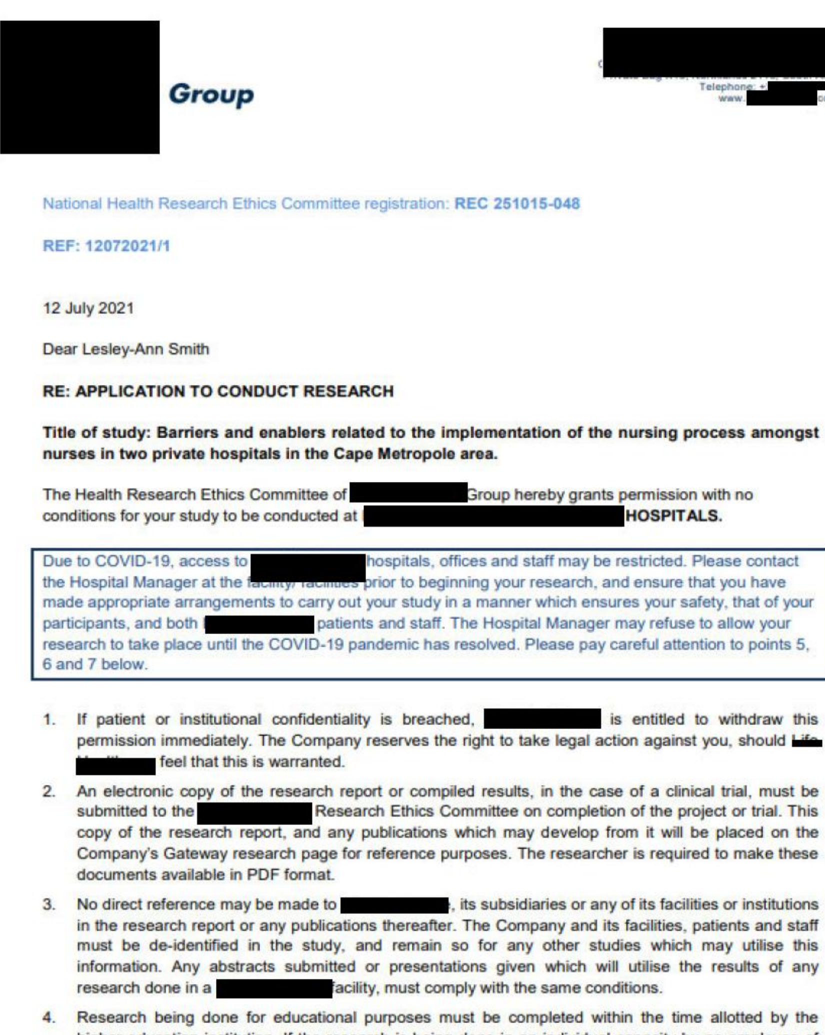
ANNEXURE 4 - Ethical Approval -Life Healthcare



Group

National Health Research Ethics Committee registration: **REC 251015-048**

REF: 12072021/1

12 July 2021

Dear Lesley-Ann Smith

RE: APPLICATION TO CONDUCT RESEARCH

Title of study: Barriers and enablers related to the implementation of the nursing process amongst nurses in two private hospitals in the Cape Metropole area.

The Health Research Ethics Committee of Group hereby grants permission with no conditions for your study to be conducted at **HOSPITALS.**

Due to COVID-19, access to hospitals, offices and staff may be restricted. Please contact the Hospital Manager at the prior to beginning your research, and ensure that you have made appropriate arrangements to carry out your study in a manner which ensures your safety, that of your participants, and both patients and staff. The Hospital Manager may refuse to allow your research to take place until the COVID-19 pandemic has resolved. Please pay careful attention to points 5, 6 and 7 below.

1. If patient or institutional confidentiality is breached, is entitled to withdraw this permission immediately. The Company reserves the right to take legal action against you, should feel that this is warranted.
2. An electronic copy of the research report or compiled results, in the case of a clinical trial, must be submitted to the Research Ethics Committee on completion of the project or trial. This copy of the research report, and any publications which may develop from it will be placed on the Company's Gateway research page for reference purposes. The researcher is required to make these documents available in PDF format.
3. No direct reference may be made to , its subsidiaries or any of its facilities or institutions in the research report or any publications thereafter. The Company and its facilities, patients and staff must be de-identified in the study, and remain so for any other studies which may utilise this information. Any abstracts submitted or presentations given which will utilise the results of any research done in a facility, must comply with the same conditions.
4. Research being done for educational purposes must be completed within the time allotted by the higher education institution. If the research is being done in an individual capacity by an employee of the Group, the research must be conducted within one year of permission being given by the Company, OR must be completed in the proposed time period specified in the approved proposal. Permission may be withdrawn if the research extends beyond the approved time period.
5. will not take responsibility for any unforeseen circumstances within its institutions which may materially change the context and potential outcomes of a student's research. Should this occur,

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the student will be required to approach their Higher Learning institution for guidance around alternatives.

6. Life Healthcare will not be liable for any costs incurred during or related to this study.

7. In cases where a researcher is found to be guilty of misconduct, or in contravention of any national or international legislation or Life Healthcare policies or guidelines, permission to continue with the research will be withdrawn immediately pending investigation. In the case of student research, the higher education institution under which the researcher is registered will be notified. In the case of a clinical trial, The South African Health Products Regulatory Authority (SAPHRA) will be notified, as well as the trial sponsor and any other necessary parties.

Yours sincerely,

____

On behalf of the Life Healthcare
Health Research Ethics Committee

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ANNEXURE 5 - Ethical Approval 2 - Life Healthcare

Hospital

Telephone: +2
Telefax: +2
www.l .co.za

20 July 2021

Ms Lesley-Ann Smith
Life Cape Town Learning Centre
co.za

RE: PERMISSION TO CONDUCT RESEARCH AT HOSPITAL
Title of study: Barriers and enablers related to the implementation of the nursing process amongst nurses

Dear Ms Smith

Herewith find letter of permission to conduct research at Hospital.

Permission is granted for research on **"Barriers and enablers related to the implementation of the nursing process amongst nurses".**

We refer to the letter of the Health Research Ethics Committee of Life Healthcare Group, dated 12th July 2021 (REF: 12072021/1) and reiterate that the conditions as stipulated will be adhered too.

Yours sincerely,

Acting Hospital Manager

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Hi Lesley-Ann

You are more than welcome to carry out this study, however it is not the best timing in the hospital at the moment with the 3rd COVID wave of infections.

Please can you liaise with as the Senior Nurse Manager to facilitate the process.

Based on my knowledge of the previous waves I think we may need to wait 4-5 weeks before starting this. Please discuss with and she will be the best person to arrange the start date and understand the involvement from nursing management side.

Kind regards,

Hospital Manager
Hospital

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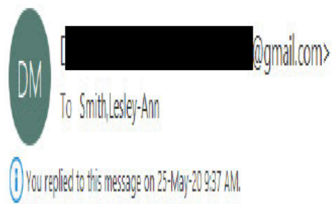
ANNEXURE 6 - Permission to use questionnaire 1

Re: permission to use research questionnaire



Greetings Lesley-Ann

Thank you for your email,I am more than wiling to authorize you to use my research tool so long as you acknowledge my work in your research and research reports.

Kindly let me know whether you want to use all research questions in my tool or you will select a few question.

Thank you

Kind regards

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ANNEXURE 7 - Permission to use questionnaire 2

RE: Permission to use and adapt study questionnaire

[redacted] co.za>
To: Smith,Lesley-Ann

Dear Lesley-Ann,

1. You are most welcome to use / adapt my questionnaire related to *"Record keeping: self-reported attitudes, knowledge and practice behaviours of nurses in selected Cape Town hospitals."*

2. Thank you for your interest in the subject matter and my dissertation - I look forward to reading your study.

Kind regards and stay safe,

Learning Centre Manager
Centre Cape Region (S917)
SOUTHERN AFRICA

rive

www co.za

Stellenbosch University https://scholar.sun.ac.za

ANNEXURE 8 - Consent Form

TITLE OF RESEARCH PROJECT:	
Barriers and enablers to the implementation of the nursing process amongst nurses in two private hospitals in the Cape Metropole area.	
DETAILS OF PRINCIPAL INVESTIGATOR (PI):	
Title, first name, surname: Mrs. Lesley – Ann Smith	**Ethics reference number:** S21/01/013
Full postal address:	**PI Contact number:**

I would like to invite you to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand the details of the researcher are listed above. It is very important that you are completely satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary,** and you are free to decline to participate at any time. In other words, you may choose to take part, or you may choose not to take part. Nothing bad will come of it if you say no: it will not affect you negatively in any way whatsoever. Refusal to participate will involve no penalty or loss of benefits or reduction in the level of care to which you are otherwise entitled. You are also free to withdraw from the study at any point, even if you do agree to take part initially.

The Health Research Ethics Committee at Stellenbosch University has approved this study. The study will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, the South African Guidelines for Good Clinical Practice (2006), the Medical Research Council (MRC) Ethical Guidelines for Research (2002), and the Department of Health Ethics in Health Research: Principles, Processes and Studies (2015).

What is this research study all about?

The study will be conducted at two private hospitals in the Cape metropole area. Registered nurses working in the medical and surgical units of the two hospitals will be requested to partake in the study. The aim of the study is to understand the barriers and the enablers that the Registered nurses face when implementing the nursing process.

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Explain all procedures.

A questionnaire was developed to establish the possible barriers and enablers to the implementation of the nursing process. This questionnaire will be distributed to all the participants who meet the inclusion criteria as part of the study. You are invited as a Registered Nurse working in a medical or surgical unit to partake in this study due to your experience of working with the steps of the nursing process.

Why do we invite you to participate?

You are invited to participate in this study due to your active involvement using the nursing process in patient care.

What will your responsibilities be?

Your responsibility would be to freely participate in the study after receiving all relevant information. You have a right to decline partaking in the study and this will not reflect in anyway on you or your position in the company.

Will you benefit from taking part in this research?

By identifying the barriers and enablers in clinical practice related to the implementation of the nursing process, recommendations could be made to manage the research findings and to enhance the quality of patient care. Information collected will be treated confidentially and protected. If it is used in a publication or thesis, the identity of the participants will remain anonymous, and questionnaires will not have any participant identifiers on them.

Is there anything else that you should know or do?

You can contact Mrs L Smith 0824068384 if you have any further queries or encounter any problems. You can phone the Health Research Ethics Committee at 021 938 9677/9819 if there still is something that has not been explained to you, or if you have a complaint.

<u>DECLARATION BY PARTICIPANTS</u>

By signing below, I …………………………………...…………………... agree to take part in a research study entitled (Barriers and enablers related to the implementation of the nursing process amongst nurses in two private hospitals in the Cape Metropole area).

I declare that:

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- I have read this information and consent form, or it was read to me, and it is written in a language in which I am fluent and with which I am comfortable.
- I have had a chance to ask questions and I am satisfied that all my questions have been answered.
- I understand that taking part in this study is **voluntary,** and I have not been pressurised to take part.
- I may choose to leave the study at any time and nothing bad will come of it – I will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the study doctor or researcher feels it is in my best interests, or if I do not follow the study plan that we have agreed on.

Signed at (*place*) .... on (*date*) 2021

....

Signature of participant **Signature of witness**

Declaration by investigator

I *(name)* ....Lesley-Ann Smith...................... declare that:

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

Signed at (*place*) .... on (*date*) .... 2021.

....

Signature of investigator **Signature of witness**

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Permission to have all anonymous data shared with journals:

Please carefully read the statements below (or have them read to you) and think about your choice. No matter what you decide, it will not affect whether you can be in the research study, or your routine health care.

When this study is finished, we would like to publish results of the study in journals. Most journals require us to share your anonymous data with them before they publish the results. Therefore, we would like to obtain your permission to have your anonymous data shared with journals.

Tick the Option you choose for anonymous data sharing with journals:

I agree to have my anonymous data shared with journals during publication of results of this study

☐ Signature____________

OR

I do not agree to have my anonymous data shared with journals during publication of results of this study

☐ Signature____________

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ANNEXURE 9 - Certificate - Language Edit

20 Oester Avenue, Struisbaai North, 7285, Western Cape, South Africa
Cell: +27 72 244 4363 or 082 807 0134
Email: info@busybeeediting.co.za / brendavanrensburg2@gmail.com
Website: www.busybeeediting.co.za

PROOFREADING AND EDITING CERTIFICATE

Busy Bee Editing have completed the proofreading, editing, layout, syntax, spelling and grammar checking to the best of their ability on a 24,444-word Thesis for Lesley-Ann Smith, titled BARRIERS AND ENABLERS RELATED TO THE IMPLEMENTATION OF THE NURSING PROCESS AMONG NURSES IN TWO PRIVATE HOSPITALS IN THE CAPE METROPOLE AREA.

Any amendments or alterations done to this Thesis by Lesley-Ann Smith hereafter are not covered by this proofreading and editing certificate. It is up to Lesley-Ann Smith to ultimately decide whether to accept or decline any amendments done by Busy Bee Editing and it remains Lesley-Ann Smith's responsibility at all times to confirm the accuracy and originality of the completed Assignment.

Hugo Chandler

For Busy Bee Editing: Hugo Chandler

Brenda van Rensburg

For Busy Bee Editing: Brenda van Rensburg

Date: 15 August 2022

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ANNEXURE 10 - Certificate - Technical Edit

4 Nerina Avenue,
Brantwood,
Kuilsriver.
7580
+27 71 768 4141
ruadams@uwc.ac.za

RUKSHANA ADAMS
COPYWRITING AND EDITING SERVICES

CERTIFICATE OF TECHNICAL FORMATTING AND EDITING

This is to certify that the thesis titled

"BARRIERS AND ENABLERS RELATED TO THE IMPLEMENTATION OF THE NURSING PROCESS AMONG NURSES IN TWO PRIVATE HOSPITALS IN THE CAPE METROPOLE AREA"

Written by

Lesley-Ann Smith

Was Reviewed for Technical Formatting and Editing by **RUKSHANA ADAMS**

Date: 22 August 2022
Signature: R. Adams

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RE: Permission to use and adapt study questionnaire

Olivier, Johann <Johann.Olivier@Mediclinic.co.za>
To Smith,Lesley-Ann

Dear Lesley-Ann,

1. You are most welcome to use / adapt my questionnaire related to *"Record keeping: self-reported attitudes, knowledge and practice behaviours of nurses in selected Cape Town hospitals."*

2. Thank you for your interest in the subject matter and my dissertation - I look forward to reading your study.

Kind regards and stay safe,

Johann Olivier
Learning Centre Manager
Mediclinic Ltd Learning Centre Cape Region (S917)
MEDICLINIC SOUTHERN AFRICA

Re: permission to use research questionnaire

Dennis Mbithi <dennismbithib.dm@gmail.com>
To Smith,Lesley-Ann

You replied to this message on 25-May-20 9:37 AM.

Greetings Lesley-Ann
Thank you for your email,I am more than wiling to authorize you to use my research tool so long as you acknowledge my work in your research and research reports.
Kindly let me know whether you want to use all research questions in my tool or you will select a few question.
Thank you
Kind regards
Dennis Ngao Mbithi
+254728223417