GUIDELINES TO FACILITATE CLINICAL NURSING EDUCATION OF NURSING STUDENTS IN THE TRAINING HEALTH FACILITIES OF OSHANA AND OSHIKOTO REGIONS, NAMIBIA

A DISSERTATION SUBMITTED IN FULFILMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

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BY

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DECLARATION

I, Ndapunikwa Uukule, declares that this research study titled "Guidelines to facilitate clinical nursing education of nursing students in the training health facilities of Oshana and Oshikoto regions, Namibia", is a true reflection of my own work and that all the sources used have been acknowledged in the text and in the reference list. This dissertation has not been submitted for a degree in any other institution of higher learning.

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Ndapunikwa Uukule		October 2022
Name of student	Signature	Date

DEDICATION

I dedicate this dissertation to my late mother, Loide Ndemukondjela and in loving memory of my husband, John Shihafeleni, who both instilled in me a sense of hardworking to achieve my dreams. I wish they could have lived longer to see my academic achievement. They were my pillars of support during my preceding years of study. Their loving memories shall forever be cherished. May their departed souls continue to rest in eternal peace.

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ABSTRACT

The development of the guidelines was necessitated by the challenges experienced during facilitation of clinical nursing education. To meet these challenges, guidelines are required to serve as a guiding tool for registered nurses in their facilitation roles. Nursing is a practice-based profession; thus, student nurses who are attached to the clinical health facilities need to acquire the necessary clinical skills and competencies in nursing practice under the guidance and supervision of registered nurses. However, despite the teaching responsibility of registered nurses, not all are acquainted with teaching methods since nursing education is not part of the undergraduate nursing curriculum. Moreover, it seems that not all registered nurses hold postgraduate qualifications in Nursing Education or Clinical Instruction that could equip them with the necessary knowledge and skills to facilitate clinical nursing education. This consequently results in inconsistency in the way registered nurses facilitate clinical nursing education in the clinical environment. The purpose of the study was to develop guidelines to facilitate clinical nursing education of nursing students in the training health facilities of Oshana and Oshikoto regions, Namibia.

A pragmatism perspective was adopted for this study. A convergent parallel mixed method approach was used to obtain data. The Practice Oriented Theory formed the conceptual framework that guided the study while the ADDIE Model and Ministry of Health and Social Services (MoHSS) framework guided the development of the guidelines.

This research study was undertaken in the following three phases:

Phase 1: To achieve objectives 1,2,3 and 4 of the situational analysis, a mixed methods research approach with descriptive and exploratory designs. Objective 1: A narrative type literature review was conducted to describe best practices in clinical nursing education. Sources published from 2010, were consulted. The said literature review revealed best practices in clinical nursing education as: effective communication, intersectoral collaboration, stakeholders' involvement, clinical learning environment, qualities of a facilitator and shared vision. Objectives 2 and 3 aimed to explore and describe the experiences of registered nurses (n= 43), lecturers (n =5) and nursing students (n= 28) on facilitation of clinical nursing education. Data were collected through five (5) focus group discussions with registered nurses and three (3) focus group discussions with nursing

students, and five (5) individual interviews with lecturers from the training institution. Participants were purposively selected for these two objectives. Data from focus group discussions and interviews were analysed according to Tesch's steps of qualitative data analysis. Three themes and twenty sub-themes emerged. The findings revealed that participants (respectively) experienced nursing students' challenges, registered nurses' and lecturers' challenges as well as support system challenges that affect facilitation of clinical nursing education. Objective 4: Focused on assessing the clinical environment where clinical nursing education takes place. For this objective a quantitative and descriptive design was used. Quantitative data were collected using self-administered questionnaires from registered nurses (n=172) and nursing students (n=108) who were recruited through simple random sampling. A 5-point Likert scale was used to score various variables. The data were analysed using the Statistical Package for Social Sciences (SPSS) computer software version 25.0. The results showed that there were poor interpersonal relationships, support system challenges and a lack of continuing professional development.

Phase 2, focused on the conceptual framework that guided the study. The conceptual framework according to Practice Oriented Theory as proposed by Dickoff et al., (1968) was used. The survey list of Dickoff et al., (1968) was used for this purpose. Thus, the agent was the (researcher, registered nurse, nurse educator), recipient (nursing), dynamic (best practices and challenges), procedure (process followed to develop guidelines) and terminus (developed guidelines).

Phase 3, concentrated on the development of guidelines for registered nurses regarding the abovementioned aim. The development of the guidelines was based on research evidence from Phase 1 and guided by ADDIE model and MoHSS framework for guidelines development. Four guidelines were developed to strengthen best practices in clinical nursing education and address the identified challenges.

In conclusion, clinical nursing education and facilitation are important components in preparing nursing students for the activities they will perform as registered nurses after graduation. However, this study has demonstrated that there are challenges in clinical practice that need to be addressed as they have the potential to negatively affect the facilitation of clinical nursing education.

The study recommended that similar studies be conducted using a broader scope of training health facilities and training institutions in Namibia, to gather more information on clinical nursing education. It

is further recommended that the facilitation of clinical knowledge and skills be based on theories and research to avoid transferring traditionally outdated nursing knowledge and skills to nursing students. The study also recommended that the developed guidelines be validated and operationalised in the practical setting.

LIST OF ACRONYMS

ADDIE - Analysis, Design, Development, Implementation and Evaluation

APVC - Assistant Pro-Vice-Chancellor

FGDs - Focus group discussions

ICN- International Council of Nurses

IMI - Intramuscular injection

IUM - International University of Management

IV – Intravenous

MoU - Memorandum of understanding

MoHSS - Ministry of Health and Social Services

RNAO - Registered Nurses' Association of Ontario

SPSS - Statistical Package of Social Sciences

UNAM - University of Namibia

UREC - University of Namibia Ethics Committee

WHO - World Health Organization

WHTC - Welwitschia Health Training Center

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CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 INTRODUCTION

The World Health Organization (WHO) emphasised the need to address the quality of nursing education, including clinical nursing education, in order to increase the competency of nursing students so that they might be equipped with the knowledge, attitudes and skills necessary to provide quality nursing care services (Dag, Kilic & Gorgulu, 2019). Nursing education aims to develop and improve professional knowledge, skills and clinical competencies among student nurses and prepare them for their future professional life (Bvumbwe, Malema & Chipeta, 2015; Dag et al., 2019).

Nursing education is a fundamental process that serves to increase student nurses' understanding of the requirements of their profession. Clinical nursing education is regarded as one of the most important parts of the educational process in nursing because it equips students with the practical skills required in nursing. The process involves two integrated and complementary components: theoretical education and clinical nursing education. "Clinical nursing education is a student-centered, three-part educational interaction between the registered nurse, the nursing student and the patient; it involves a unique process by which student nurses are required to perform nursing activities in real life situations" (Hughes & Quinn, 2013; Sezer, 2018, p15). Furthermore, it involves assisting nursing students to acquire competencies, which include knowledge, skills and attitudes in real life situations. Moreover, it teaches them how to obtain data, a skill not readily encountered in other educational interactions. This is to enable them to meet the standards set by nursing education institutions and/or professional bodies for qualification and/or licensing purposes (Kpodo, 2015).

1.2 BACKGROUND OF THE STUDY

Globally, the education and training of nursing students consists of both theory and practice (Gunay & Kilinc, 2018). The theoretical component is taught in the classrooms while the practical

part is mainly taught in clinical environments such as hospitals, health centres and clinics. Clinical nursing education is a vital component of nursing education worldwide since it is in the clinical environment where theory connects to practice (Asirifi, Ogilvie, Barton, Aniteye, Stobart, Bilash, Eliason, Ansong, Aziato & Kwashie, 2017). In addition, clinical education accounts for fifty (50) percent of nursing programmes, globally (Asirifi, et al., 2017). Worldwide, the teaching role is clearly acknowledged in the professional practice of all registered nurses (Henderson & Tyler, 2011). In Australia, the Australian Nursing and Midwifery Council competencies state that registered nurses contribute to the professional development of self and others (Henderson et al., 2011). This necessitates those registered nurses teach others, including nursing students, new graduates as well as other health professionals. As stated by Donough and Van der Heever (2018) registered nurses are responsible for teaching, supervising, guiding, counselling, assessing and evaluating nursing students in the clinical learning environment. According to a study done in Toronto, Canada, clinical education is pertinent to quality future health care and must be a priority of all stakeholders in nursing education; that is to say, nursing educators, administrators, registered nurses, nursing students and the public at large (RNAO, 2016). Nursing students must learn to appreciate the complexity of the environment in which they practice, its disease trends and how to practice competently within it. It is through exposure to the clinical environment that the nursing students are enabled to integrate and apply the theory learned in the classroom in real life situations and to demonstrate their acquisition of the required clinical skills. Furthermore, while developing their clinical competence, this exposure also enables students to develop judgment and decision-making skills in complex patient situations.

Findings from a study in Ghana, a country situated in sub-Saharan Africa and conducted by Asirifi et al., (2017), stated that there is consensus within the nursing community that changes are needed to enhance the effectiveness of clinical education. The study further revealed the need for quality and sufficient hands-on practice opportunities for student nurses to develop their psychomotor and communication skills, integrate knowledge and engage in evidence-based practice. A study undertaken in South Africa indicated that nursing students are required to undergo a four-year full-time degree or diploma to qualify as professional nurses (Muthathi, Thurling & Armstrong, 2017). During this time, student nurses rely on the facilitation of clinical nursing education to maximize the time spent in the clinical learning environment enabling them to learn and perfect the art and skill of nursing (Okoronkwo, Onyia-Pat, Agbo, Okpa & Ndu, 2013).

Nursing education in Namibia has changed tremendously since its 1960 inception. The changes were necessitated by new approaches, technologies and disease trends that require registered nurses to be competent in these areas. The most significant change was the introduction of a four-year Bachelor of Nursing Science (Clinical) (Honours), which is offered as a full-time course at the University of Namibia. This change led to amendments in the cognitive, psychomotor and affective areas. One of the most important aspects that emerged was the facilitative role of registered nurses in the form of guidance, support and teaching of nursing students, aimed at equipping them with the necessary practical skills in providing comprehensive nursing care (Uukule, 2006).

To date, Namibia has four (4) tertiary training institutions that train undergraduate student nurses: the University of Namibia (UNAM), the International University of Management (IUM) and the Welwitschia Health Training Centre (WHTC). At UNAM, lecturers are expected to take nursing students through blocks of theory and practice by teaching the theoretical component of the curriculum and doing clinical follow-ups of nursing students in the clinical learning environment to provide practical guidance and support (Shatimwene, Ashipala & Kamenye, 2020).

Nursing students are allocated to the clinical learning environment to experience the essence of nursing. As will be understood from the discussion above, it is through experience in the clinical learning environment that student nurses acquire the knowledge, skills and values essential to professional practice and become socialised into the nursing profession (Kalyani et al., 2019). As such, clinical nursing education provides student nurses with an opportunity to work with patients, enabling them to develop communication and thinking skills in order to achieve professional competence. Therefore, "clinical nursing education should allow nursing students to apply theoretical knowledge in a real environment, develop their nursing skills and clinical reasoning as well as observe and become familiar to the professional role" (Gemuhay, Kalolo, Mirisho, Chipwaza & Nyangena, 2018, p2). However, nursing students correspondingly have a responsibility to be active in their own clinical learning.

In addition, registered nurses are regarded as part of the support system for nursing students and are expected to guide them in the acquisition of competencies and clinical skills and ensure that they are well trained in the clinical training process (Mwale & Kalawa, 2016). The former plays

a multidimensional and important role in supervising, supporting, guiding, problem-solving and monitoring nursing students' learning (Ekstedt et al., 2019). According to Anderson, Moxlam and Broadbent (2017), registered nurses are expected to provide professional development to undergraduate nursing students during clinical attachments whereby they are expected to learn and become professionally mature and competent practitioners of nursing. To facilitate the acquisition of clinical skills, registered nurses are entrusted with the clinical nursing education of nursing students as part of their professional responsibility to enable them to acquire the knowledge and practical skills until they attain professional maturity (Jamshidi et al., 2016). Therefore, registered nurses who are cognisant of their responsibilities and facilitate learning accordingly, contribute to the creation of a clinical learning environment where all staff become involved in developing nursing students and others (Henderson, 2011).

The clinical learning environment is important for professional practice of nurses and students. According to Ali and Ali (2017, p66), "the clinical learning environment is an interactive network of power within the clinical areas which influences the students' learning and consists of every aspect that surrounds the student nurses such as place, equipment, staff, educators and patients". Clinical nursing education can occur in a clinical learning environment or in the context of a simulated clinical lab, both of which are very important for students' learning and professional socialization (Jamshidi et al., 2016). The clinical learning environment consists of combination of diverse physical, psychological, emotional and organisational factors affecting the nursing students' learning (Kalyani, Jamshidi, Molazem, Torabizadeh & Sharif, 2019). The process should concentrate on the learning needs of students and deliver learning opportunities for enhancement of clinical learning (Ekstedt, Lindblad & Lofmark, 2019). Hence, a positive and supportive clinical learning environment is needed to enable nursing students to integrate theory into practice as it is here that the students become acquainted with the realities of their profession and functions of nursing in the clinical learning environment (Mbakaya et al 2020; Ali et al., 2017).

Since clinical nursing education is an important component of nursing education, it is imperative to find ways to maximize learning opportunities in the clinical learning environments. Based on the importance of the issues raised in the above discussion, the development of the guidelines described in this thesis will fill a significant gap in the body of knowledge and will assist in the process of facilitation of clinical nursing education.

1.3 CONTEXT OF THE STUDY

"Context refers to the environment, setting or place in which the discourse occurs" (Song, 2010, p877). The context of this study was the public health facilities of the Namibian Ministry of Health and Social Services (MoHSS) in Oshana and Oshikoto Regions. Namibia is located in the south-western part of Africa, sharing borders with Angola in the north, Zambia in the northeast, Botswana in the east, South Africa in the southeast and south and the Atlantic Coast in the west. The country has twenty-three ministries, of which the Ministry of Health and Social Services is one. The MoHSS is itself divided into fourteen regional directorates: Erongo, Hardap, Karas, Kavango East, Kavango West, Khomas, Kunene, Ohangwena, Omaheke, Omusati, Oshana, Oshikoto, Otjozondjupa and Zambezi. Furthermore, each region consists of various health facilities. This study was conducted in Oshana and Oshikoto regions. These regions were selected because of their uniqueness in terms of the geographical location, population density and remoteness. Figure 1.1 illustrates the fourteen regional directorates of the MoHSS of Namibia, magnifying the Oshana and Oshikoto regions where the study was conducted.

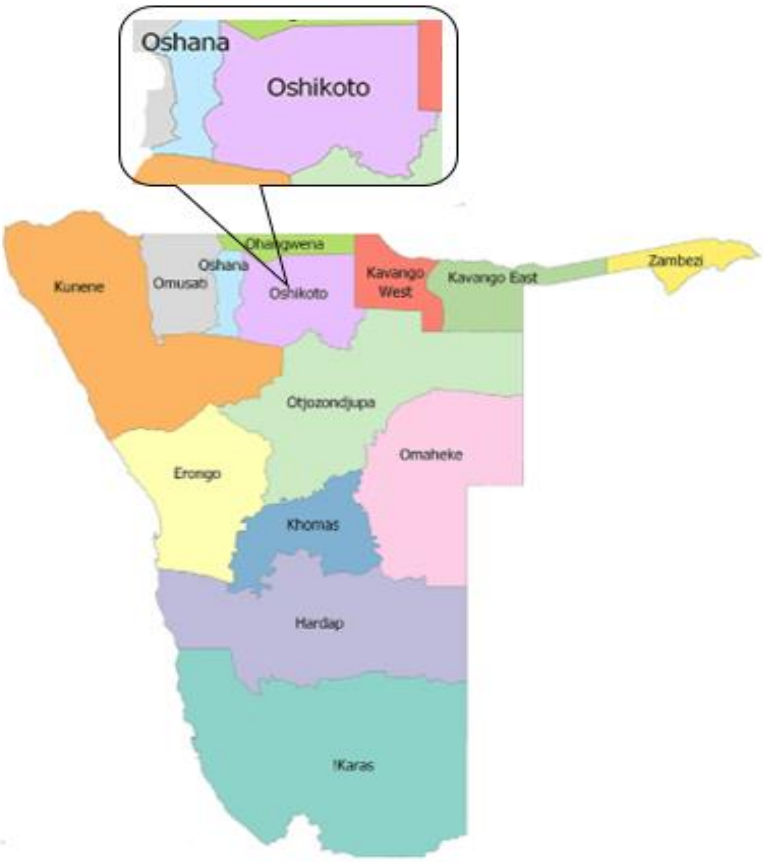

Figure 0.1: Namibian map (www.mappr.co/counties/namibia/).

1.4 PROBLEM STATEMENT

The success of clinical learning depends upon a strong collaborative relationship between service agencies and clinical educational institutions, with support from standard setting and policy-making bodies relevant to entry to practice competencies (Registered Nurses' Association of Ontario (RNAO) 2016). Furthermore, collaborative involvement and support from registered nurses in designated health facilities and lecturers from the training institutions are required to contribute to students' development and professional growth (RNAO, 2016). Effective clinical nursing education should include intersectoral collaboration, stakeholders' involvement namely, MoHSS, training institutions and consumers, effective communication, a supportive clinical learning environment and a shared vision (Belita, 2019; Bvumbwe, 2016; Direko & Davhana-Maselesele, 2017; International Council of Nurses (ICN) 2014).

In Namibia, the MoHSS has entrusted registered nurses with the responsibility of teaching nursing students in the clinical environment. However, nursing students are not taught facilitation in the basic nursing training curriculum, hence it becomes difficult when appointed to facilitate clinical nursing education after completion of their studies. Moreover, it seems that not all registered nurses have postgraduate qualifications in Nursing Education or in Clinical Instruction that could equip them with the necessary skills and knowledge to teach nursing students in practice. Futhermore, it seems that registered nurses did not have the necessary support to fulfil their teaching roles. In this regard there appears to be inadequate or no guidelines for registered nurses to serve as a guiding tool to facilitate clinical nursing education of nursing students in Oshana and Oshikoto regions and in Namibia as a whole.

This results in inconsistency of facilitation of clinical nursing education by registered nurses in the said training environment. The researcher, who is a nurse educator, has also observed inconsistency among registered nurses on how they facilitate clinical nursing education during students' clinical follow-up visits. A study done in Australia by Fagan, Lea and Parker (2021), found that students complained of inconsistencies and differences in practice compared to what they had been taught in the classroom. A study conducted in Ghana by Asirifi et al., (2017) discovered that there are no formal guidelines to facilitate clinical nursing education there. Study also undertaken in Cameroon observed that there are no guidelines to assist clinical teachers on how to effectively teach and supervise nursing students in clinical area (Eta, Atanga, Atashili & D'Cruz, 2011). Similarly, according to the findings from a study undertaken in Australia, registered nurses felt unprepared, ill-equipped and unsupported in carrying out their teaching responsibilities (Newton, Pront & Giles, 2018). Brazilian researchers, Cosme and Valente (2013) maintained that although registered nurses play an important role in the socialisation of nursing students in clinical nursing education, they too reported receiving no or inadequate training or preparation for that role.

Another Ghanaian study, conducted by Atakro, Armah, Menlah, Garti, Addo, Adatara and Boni (2019) discovered that undergraduate nursing students did not acquire the appropriate competencies during clinical placement as result of inadequately prepared clinical staff and the poor application of rendering theory into practice. Based on the findings of a study undertaken in Iran by Baraz, Memarian and Vanaki (2015), the researchers lamented that inadequate academic

and practical preparation and inappropriate approaches in instructional strategies reduce the ability of registered nurses to teach students and provide an environment for effective clinical training of students. According to Uukule's (2006) study findings, there was low confidence amongst registered nurses in terms of the provision of clinical nursing education provided to nursing students, due to a lack of knowledge concerning the latest development in the nursing profession.

The researcher's own findings and those of other researchers in other countries motivated the researcher to explore the clinical nursing education provided to nursing students by registered nurses, more extensively. Because of her research and findings, she developed guidelines for facilitate clinical nursing education with a view to producing competent nurses and to enable uniformity on how clinical nursing education is conducted. Unlike the procedure manual which focus on psychomotor skills, the guidelines focused on activities to be undertaken in order to address aspects that affect facilitation of clinical nursing education such as high number of nursing students, poor communication, lack of resources and staff shortage. Therefore, the guidelines will supplement the procedure manuals in providing a comprehensive approach during facilitation of clinical nursing education.

1.5 THE PURPOSE OF THE STUDY

The purpose of the study was to develop guidelines to facilitate clinical nursing education of nursing students in the training health facilities of Oshana and Oshikoto regions, Namibia.

1.6 THE SPECIFIC OBJECTIVES OF THE STUDY

The objectives of the study were arranged in three phases as illustrated in Table 1.1. The objectives of the study were to:

Table 1.1**:** *Objectives and phases of the study.*

PHASE	OBJECTIVES
Phase 1	• Describe best practices (through literature) in clinical nursing education • Explore and describe experiences of registered nurses and lecturers in clinical nursing education of nursing students in practice • Explore and describe experiences of nursing students in clinical nursing education provided to them by registered nurses • Assess the clinical environment where clinical nursing education takes
Phase 2	• Develop a conceptual framework that guide the study
Phase 3	• Develop guidelines to facilitate clinical nursing education of nursing students

Therefore, the researcher formulated the following research questions:

- What are the best practices for clinical nursing education? (Phase 1)
- What are the experiences of registered nurses and lecturers in clinical nursing education? (Phase 1)
- What are the experiences of nursing students in clinical nursing education? (Phase 1)
- What is the nature of the clinical environment where clinical nursing education takes place? (Phase 1)
- What is the appropriate framework for clinical nursing education? (Phase 2)
- How will the guidelines for clinical nursing education facilitation be developed? (Phase 3)

1.7 THE SIGNIFICANCE OF THE STUDY

1.7.1 Nursing practice

The findings of this study have a prospect to inform clinical nursing education practices that will guide nurse educators in facilitation of clinical nursing education of nursing students in clinical practice.

1.7.2 Nursing education

The developed guidelines for clinical nursing education facilitation would improve the teaching and learning process which may contribute to the improvement of quality of nursing practice.

1.7.3 Nursing administration

The findings of the study may inform the formulation of clinical nursing education policies that support facilitation of clinical nursing education.

1.7.4 Nursing research

The recommendations from this study have a potential for further research in order to close existing gaps in clinical nursing education. Furthermore, it is hoped that the findings of the study will add value to the body of knowledge on clinical nursing education.

1.8 PARADIGM PERSPECTIVE

"A paradigm is an over-arching philosophical framework which supports the production of scientific knowledge" (Brink, van der Walt & van Rensburg, 2018, p20). According to Grove, Gray and Burns (2015), paradigms are a specific way of looking at a phenomenon in the world and are "important because they provide beliefs and dictates for scholars in a particular discipline, influence what should be studied, how it should be studied and how the results of the study should be interpreted" (Kivunja & Kuyini, 2017, p26). The paradigm that guided this study consisted of worldviews and philosophical perspectives as described below:

1.8.1 Worldviews for this study

The term 'Worldview' is defined as "a way of thinking about and making sense of the complexities of the real world" (Patton, 2002) as cited in Kaushik and Walsh (2019, p1). "It is the perspective, thinking or school of thought or set of shared beliefs that inform the meaning or interpretation of research data" (Kivunja, et al., 2017, p26). The concept of worldview, in mixed methods research, comprises beliefs and assumptions about the knowledge that informs a study (Creswell & Clark., 2018).

Since this study adopted a mixed research method, a pragmatic worldview was considered appropriate because it provides the underlying philosophical framework for mixed methods research. A pragmatic worldview consists of both qualitative and quantitative research methods to understand the problem (Petersen & Gencel, 2013). Pragmatism maintains that it is not possible to access the truth about the real world by virtue of a single method (Kivunja, et al., 2017) thereby advocating the use of mixed methods as a way of understanding human behaviour. Pragmatism places the research problem as central and applies all approaches to understand the problem. In adopting a pragmatic worldview, which as stated above, utilises both qualitative and quantitative research methods, in which participants were involved in describing their experiences in clinical nursing education as well as defining the meanings of concepts related to their experiences in clinical nursing education. The study was based in part on information that is believed to be true, as obtained from the experiences of the participants regarding the clinical nursing education of nursing students.

In this study, focus group discussions and individual interviews as methods of qualitative data were conducted to explore and describe the experiences of registered nurses, lecturers and nursing students on facilitation of clinical nursing education. In addition, a quantitative method that involved a self-administered questionnaire was used to assess the clinical environment where clinical nursing education takes place. To achieve the objective of this study, five philosophical assumptions were applied: the nature of social reality (ontology), ways of knowing (epistemology), ethics and value systems (axiology), appropriate approaches to systematic inquiry (methodology) and (rhetoric) or language or voice of reporting.

In order to explain the researcher's understanding of the concepts related to the research and the implications thereof, the philosophical perspectives of this study were described.

1.8.2 Philosophical perspectives

The philosophical perspective for this study was based on the following assumptions, namely, ontology, epistemology, axiology, methodology and rhetoric. The philosophical assumptions of the study were described as follows:

1.8.2.1 Ontology

"Ontology is the study of being that is concerned with what constitutes reality" (Scotland, 2012, p9). It examines the underlying belief system of the researcher, about the nature of being and existence. Ontological assumption in this study was based on experiences and true stories of registered nurses, nursing students and lecturers concerning facilitation of clinical education of student nurses during clinical attachment. Edmond and Kennedy (2013) are of the opinion that reality arises from individual's perception of his/her experiences for example from facilitating of clinical education. The researcher is of the opinion that the context being investigated consisted of registered nurses, nursing students and lecturers who have different opinions, thinking and understanding of the reality on facilitation of clinical nursing education.

In this study, qualitative approach enabled the researcher to interact with participants and observe their facial expressions and body language during focus group discussions and individual interviews. The quantitative approach offered descriptive statistics to determine the value of findings on the basis of the percentages that represent the reality of the situation.

1.8.2.2 Epistemology

Epistemology deals with how we know the world, how knowledge is gained and relationship between the knower and the known (Kivunja, et al, 2017). It describes "how we come to know something and how we know the truth or reality" (Kivunja et al., 2017, p27). "Epistemology is important because it helps to establish the faith the researcher put in the data and it also affects how the researcher will go about uncovering knowledge in the social context that is under investigation" (Kivunja et al., 2017, p27).

Pragmatism epistemology is based on real-world phenomena. It is based on the fact that knowledge is both socially constructed and influenced by power relations from within society (Scotland, 2012). The relationship of knowledge is best determined by what the researcher deemed appropriate to the specific study. In the qualitative part of the study, the information was obtained from registered nurses, nursing students and lecturers who shared their experiences and opinions in the real environment. The researcher spent sufficient time in the field to interact and obtain information from participants on facilitation of clinical nursing education and the challenges that were encountered during clinical nursing education in order to build a relationship and to gain the

participants understanding, knowledge and experiences. In the quantitative part of the study, the data were collected using a self-administered questionnaire and the researcher did not interfere with data.

1.8.2.3 Axiology

"Axiology refers to the ethical issues that need to be considered when planning a research study" (Kivunja, et al., 2017, p28). Axiological assumption deals with the nature of the value and captures the question of what is intrinsically worthwhile. It is normative which considers how things ought to be, thus, it judges reality (Kivunja, et al., 2017). It involves defining, evaluating and understanding concepts of right and wrong behavior relating to the research. Axiology "addresses the question: What is the nature of ethics or ethical behavior?" (Kivunja, et al., 2017, p28). It is therefore important to consider the human values of everyone that will participate in the research study.

In the qualitative part of this study, the researcher allowed subjectivity by obtaining data through interviews and focus group discussions (FGDs). In the quantitative part of the study, the objective data was obtained using a questionnaire. Axiology also "considers what value the researcher shall attribute to the different aspects of the research, participants, the data and the audience to which we report the results of our research" (Kivunja, et al., 2017, p28). In this study, the researcher maintained the objective and subjective view of the data throughout the process of data collection, handling, data analysis and interpretation of the results. In the qualitative part of the study, the data was transcribed verbatim and direct quotations were used while in the quantitative part, data was captured on a computer. Furthermore, the researcher preserved bracketing and eliminated bias by capturing and presented authentic data throughout the study.

Axiology also considered the nature of ethics or ethical behavior in research (Kivunja, et al., 2017). In this study, the researcher adhered to the ethical principles during throughout the study. Approval was obtained from MoHSS and UNAM to carry out the study. The researcher adhered to ethical principles of justice and beneficence in order to protect human subjects at all times. The researcher respected the privacy and confidentiality of the participants during the research process. Participants were informed of their rights to withdraw from the study at any time if they so wish.

Participants voluntarily consented to take part in the study. Anonymity was maintained throughout the research process.

1.8.2.4 Methodology

"Methodology refers to the research design, methods, approaches and procedures used in an investigation that is planned to find out something (Keeves, 1997)" as cited in Kivunja, et al., (2017, p28). Methodology expresses the reasoning and flow of the systematic processes followed in conducting research to gain insight into a research problem (Kivunja, et al., 2017). A mixed method approach was used to collect and analyze the data. Mixed research method refers to the combination of quantitative and qualitative designs in a study (Creswell, 2014). A convergent parallel mixed method design was adopted for the purpose of collecting both qualitative and qualitative data, analyse them separately and then compare the results to see if the findings confirm or disconfirm each other. During the qualitative component of the study, focus group discussions and individual interviews were conducted to get evidence for the development of the guidelines. Moreover, the quantitative part involved collection of data using a self-administered questionnaire to assess the clinical environment were clinical nursing education takes place.

1.8.2.5 Rhetoric

Rhetoric refers to the language use and writing by the researcher throughout the whole research process (Creswell et al., 2018). According to Hays and Singh (2012), rhetoric includes numerous formats in which data are presented. In this study, the usage of both formal and informal language was utilized. In qualitative part of the study, informal language was used during recording and verbatim transcription of the data, describing and development of themes and sub-themes. Direct quotations from participants were used to present the findings of the study. During the quantitative part of the study, formal language was used to construct the questionnaire, for data entry, data analysis and reporting of the findings. Moreover, scientific language was used throughout the reporting of the study findings in order to avoid multiplicity of meanings from words.

1.9 THEORETICAL AND CONCEPTUAL BASIS OF THE STUDY

Theoretical framework is an essential component of a research study as it is used to guide the research process (Grant & Osanloo, 2014). It includes theories, models and frameworks that help the researcher to understand the research problem. In this study Practice Oriented Theory, ADDIE model and MoHSS framework was used.

1.9.1 Theoretical framework guiding the study

"The theoretical framework is the structure that can hold or support a theory of a research study" (Kivunja, 2018, p46). It consists of theories expressed by experts in the field of study which the researcher uses as a theoretical basis for data analysis and interpretation of results (Kivunja, 2018). Theoretical framework offers logical reasoning for the inquiry and shows that the research is grounded in and based on scientific theory (Vinz, 2015). Meanwhile, "a conceptual framework is the total, logical, orientation and association of anything and everything that forms the underlying thinking, structures, plans, practices and implementation of the entire research project" (Kivunja, 2018, p47). Thus, the conceptual framework is the logical conceptualization of the entire research project. The theoretical and conceptual framework for this study was based on Practice Oriented Theory as proposed by Dickoff, et al. (1968). The researcher further utilized the Analysis, Design, Development, Implementation and Evaluation (ADDIE) Model (Molenda, 2015) and MoHSS (2017) framework for guidelines development as the basis for the study.

1.9.1.1 Practice Oriented Theory

The Practice-Oriented Theory was developed by Dickoff, James and Wiedenbach and was adopted for the purpose of conceptualization of the findings. This theory comprises of following components, such as the aim in a study, activity to realize the goal and a survey list to serve as a supplement to present prescriptions (Dickoff et al., 1968). The survey list included questions that explain concepts and analyses the activities that aim at realizing the goals of the study. The questions in the survey list included: Who or what performs the activity (agent), who or what is the recipient of the activity (recipient), in what context is the activity performed (framework/context), what is the energy source for the activity (dynamic), what is the guiding procedures, technique or protocol of the activity (procedure) and what is the end product of the

activity (terminus). This theory was used to conceptualize the findings of the study and was explained in detail in chapter 5. Table 1.2 illustrates the components of the survey list and its description according to the study and will be described in detail in chapter 5.

Table 1.2: *Practice Oriented Theory*

Survey list	Description
AGENT	The agent in this study is the researcher, registered nurse and nurse educator who developed the guidelines to facilitate clinical nursing education.
RECIPIENT	Are the nursing students in the clinical settings who are receiving facilitation of clinical nursing education
DYNAMICS	This includes all the findings from objectives of the study
PROCEDURE	This is the procedure followed in developing the guidelines. This includes merging the review, qualitative and quantitative part of the study.
TERMINUS	According to this study, the end product is guidelines which are ready to be validated and implemented in the health care settings.

Source: Dickoff et al. (1968.)

1.9.1.2 ADDIE Model

The ADDIE model was used during the development process of the guidelines. The ADDIE model is one of the instructional models that provides an organised process for developing instructional materials. Its origin is unclear, but it is an idiomatic term used to describe any process-based approach in developing instructional content (Molenda, 2015). However, Molenda, Pershing and Reigeluth (1996) as cited in Molenda (2015), chose and applied the term ADDIE model as an umbrella term for Instructional System Design (ISD) model because it exemplifies the interconnection between development of instructional intervention and development of performance intervention. "It helps instructional designers, content developers or even teachers to create an efficient and effective teaching design by applying the processes of the ADDIE model on any instructional product" (Aldoobie, 2015, p68). It is a systematic process that is presented in the acronym ADDIE, which stands for Analysis, Design, Development, Implementation and

Evaluation which are related and interact with each other (Cheung, 2016). In this study, the ADDIE model served as the basis for the development of the guidelines to facilitate clinical nursing education. This model was applied in Chapter 3 and 6 of this study. The ADDIE model and its application is showed in Table 1.3.

Table 1.3: *ADDIE Model (Molenda, 2015).*

Phases	Description
ANALYSIS	Objective 1 to 4
DESIGN	Triangulation of all the results
DEVELOPMENT	Guidelines development using outlined procedures
IMPLEMENTATION	Validation of the developed guidelines is part of the implementation. After validation, they will be pilot tested in the targeted health care settings
EVALUATION	Evaluation will be done to see if they are in the context or if there are any challenges.

1.9.1.3 Framework for guidelines development

The MoHSS (2017) framework for guidelines development was used as a basis for the development of the guidelines and was developed by the Ministry of Health and Social Services. It consists of the following structure: situation of the problem, current situation of the problem, aim/purpose of the guidelines, objectives, purpose, benefits and activities MoHSS (2017) as described in chapter 6. This framework was adopted in this study during the development stage of the guidelines as illustrated in Table 1.4.

Table 1.4*: Framework for guidelines development (MoHSS, 2017).*

STRUCTRE	DESCRIPTION
Situation of clinical nursing education	The situation of clinical nursing education was provided according to global, nationally and African context.
Current situation of clinical nursing education	Current situation of clinical nursing education was provided based on the best practices and challenges identified during the current study which include best practices in clinical nursing education, nursing students' challenges, registered nurses and lecturers' challenges and support system challenges
Assumptions of guidelines	Assumptions of the guidelines were included in the guidelines and will guide registered nurses in implementing creative ways during facilitation of clinical nursing education entrenched
Aim	The aim of the guidelines was to enhance best practices on clinical nursing education and to address identified challenges during situational analysis
Objective	Objectives were set to strengthen best practices on clinical nursing education and address challenges affecting facilitation of clinical nursing education
Benefits of guidelines	The guidelines are beneficial to the nursing students, registered nurses, lecturers and the training institution.
Activities of the guidelines	These activities included actions to be undertaken by the recipients in order to enhance motivating factors and mitigate the challenges

1.10 METHODOLOGY

Methodology refers to "the process through which the researchers pinpoint the methods that will be used in order to address the specific questions" (Almalki, 2016, p290). It provides the focus and approach for the study. The methodology adopted in this study is a mixed method approach and is described in Chapter 3. The qualitative component of the study used descriptive and exploratory designs. To achieve this, focus group discussions and individual interviews were held

in order to obtain in-depth information from participants. Concerning the quantitative part, a descriptive design was used whereby respondents completed a self-administered questionnaire in order to realize the objective of the study. The methodology was based on three phases of the study as described below:

1.10.1 Phase 1: Situational analysis

The situational analysis was carried out according to the four objectives of the study in in order to generate evidence for the development of the guidelines. Objective 1,2, and 3 focused on the qualitative part of the study while objective 4 focused on the quantitative approach of the study. Objectives 1 of the situational analysis focused on describing the best practices on clinical nursing education, while objectives 2 concentrated on exploring and describing the experiences of registered nurses and lecturers on facilitation of clinical nursing education while objective 3 focused on exploring and describing the experiences of nursing students concerning facilitation of clinical nursing education. Focus group discussions and individual interviews were conducted to achieve the objectives of the study. The methodology applied to achieve the above objectives was described in detail in Chapter 3. Moreover, objective 4 of the situational analysis focused on the assessment of the clinical environment. Self-administered questionnaires were administered to registered nurses and nursing students to assess the clinical environment.

1.10.2 Phase 2: Conceptual framework guiding the study

"A conceptual framework refers to the interrelated concepts or abstractions assembled in a rational and often explanatory scheme to illuminate relationships among them" (Polit, et al., 2018, p123). The conceptual framework for this study was based on Practice Oriented Theory (Dickoff et al.,1968). This theory consisted of six activities according to the survey list which assisted in explaining the concepts used in the development of the guidelines for registered nurses to facilitate clinical nursing education. These activities consisted of who or what perform the activities (agent), who or what is the recipient of the activity, in what context is the activity performed, what is the guiding procedure technique of protocol of the activity, what are the energy sources for the activities (dynamic) and what is the end product of the activity (terminus). In this study, this theory was applied during the development of a conceptual framework in Phase 2 (Chapter 5) and its

application aided in the conceptualization process of the findings. This theory is further described in Chapter 5.

1.10.3 Phase 3: Development of the guidelines

The development of the guidelines was guided by the ADDIE model (Molenda, 2015) and framework for guidelines development (MoHSS, 2017). The guidelines were developed to guide and support registered nurses on facilitation of clinical nursing education of nursing students in clinical practice. The content of the guidelines was derived from situational analysis (Phase 1) in Chapter 3 and conceptual framework (Phase 2) in Chapter 5.

1.11 DEFINITION OF THE CONCEPTS

The concepts defined are derived from the title (Guidelines to facilitate clinical education of nursing students in the training health facilities of Oshana and Oshikoto regions, Namibia).

- Clinical nursing education: "The means by which nursing students learn to apply the theory of nursing and facilitating the integration of theoretical knowledge and practical skills in the clinical setting" (Tiwaken, Caranto & David, 2015, p2). In this study, clinical nursing education refers to the process of teaching, guiding and supporting nursing students during clinical attachment.

- Guidelines: Are tools to guide practice and enhance decision making for nurses who are educating, precepting or mentoring undergraduate nursing students in an academic institution or clinical practice setting (RNAO, 2016). In this study, guidelines refer to tools that direct, support and guide registered nurses during facilitation of clinical nursing education of nursing students.

- Registered nurse: A nurse who has graduated from a nursing program and met the requirements outlined by the training institution and Nursing Council and registered and legally licensed to practice nursing and midwifery (Government of The Republic of Namibia, 2004). In this study, a registered nurse refers to a qualified nurse who is

registered with the Health Professions Council of Namibia; has completed the probation period and working in the training health facilities of Oshana and Oshikoto regions.

- Nurse educator: Registered professional nurse with additional qualification in nursing education and is registered with the South African Nursing Council (South African Nursing Council, 2014:3). In this study, nurse educator refers to a registered nurse, lecturer, clinical instructor and preceptor who is registered with the Nursing Council of Namibia.

- Facilitate: Make an action or process easier (Hornby, 2015). In this study, to facilitate is to make clinical nursing education process easier for registered nurses.

- Nursing student: A person enrolled in a programme leading to certification in the form of Nursing and Midwifery and meets the requirements outlined by the training institution and Health Professions Council of Namibia to be registered as Registered nurse (Government of The Republic of Namibia, 2004). In the study, nursing student refers to a nursing undergraduate student who has registered for a Bachelor of Nursing Science (Clinical) (Honours) at the University of Namibia, Oshakati campus on a full-time basis and in the third and fourth year of study and are being allocated at the health facilities for clinical training in order to acquire the necessary knowledge and skills that under the guidance and supervision of registered nurses.

- Training health facility: An approved institution for training and education of current and future health professionals where sick people are treated and has complied with the requirements of prescribed qualifications as stipulated in section 18 of the Nursing Professions Act, 8 of 2004 (Government of The Republic of Namibia, 2004). In this study, training health facility refers to Intermediate hospital Oshakati, Onandjokwe hospital, Oshakati Health Center, Ou-Nick Health Center, Ongwediva Health Center Okatana Health Center, Ondangwa Health Center and Eluwa Clinic.

1.12 DEMARCATION OF CHAPTERS

This dissertation is organized and demarcated in the following chapters as follows:

Chapter 1: Introduction and background

The chapter presented the introduction, background, context of the study and problem statement. The purpose, objectives, significance of the study, paradigm perspectives, the theoretical and conceptual basis for the study were described. The chapter also discussed the methodology adopted in the study and provided definitions of related concepts.

Chapter 2: Literature review

This chapter presents the review of literature conducted on the research topic. The chapter presented the introduction and background of clinical nursing education. Best practices on clinical nursing education were also discussed. A deliberation on the experiences of registered nurses and lecturers, nursing students and clinical environment in which clinical nursing education takes place. Moreover, the chapter described the theories and model used in the study.

Chapter 3: Methodology

This chapter described the approach, designs and methods used in the execution of the study. In addition, the reasoning strategies applied in the study were discussed. The situational analysis (Phase 1) that covered both qualitative and quantitative approaches of the study were discussed. Moreover, the development of conceptual framework (Phase 2), development, implementation and evaluation of the guidelines (Phase 3) and ethical considerations were in the study were described.

Chapter 4: Presentation of the results

This chapter presents the results of the study. It provided the introduction and overview of qualitative data collection and analysis of the study. A discussion on the themes and sub-themes was also provided. Moreover, a discussion on the quantitative data analysis and results of the study was presented. Lastly, merging and interpretation of qualitative findings and quantitative results was done and challenges were identified.

Chapter 5: Conceptual framework and researcher's mental mapping

This chapter describes the conceptual framework of the study. The Practice theory by Dickoff et al., (1968) was adopted to conceptualise the results of the situational analysis and link them to the concepts such as agent, recipient, context, dynamics, procedure and terminus.

C*hapter 6: Development, of the guidelines to facilitate clinical nursing education of nursing students.*

The chapter provides an overview and description of the guidelines.

Chapter 7: Conclusions, limitations, recommendations and contributions of the study

This chapter presents the conclusion of the study. The aims and objectives and purpose of the study is provided, conclusions and limitations of the study are presented. This chapter also provided the recommendations, contributions to the body of knowledge and dissemination of the outcomes of the study findings.

1.13 SUMMARY

In this chapter, the introduction, background of the study, context of the study, problem statement, purpose, study objectives and significance of the study are presented. The paradigmatic perspective, theoretical and conceptual basis of the study, methodology and definitions of terms used in the study were described. The next chapter presents the literature review that supported the process of inquiry.

CHAPTER TWO
LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents the literature that informs the study. A literature review summarises evidence on the current state of knowledge about a research problem (Grove & Gray, 2019). The literature search was conducted using the terms, experiences of registered nurses, lecturers and nursing students in relation to clinical nursing education and the clinical environment in which clinical education takes place. The literature search was narrowed down to focus on the main objectives of the study.

2.2 BACKGROUND OF CLINICAL NURSING EDUCATION

Clinical nursing education of nurses in undergraduate programmes is regarded as an important component as it contributes to quality nursing education and improved patient outcomes. Clinical nursing education refers to a student-centered educational interaction between a registered nurse, student nurse and a patient which enables students to integrate theoretical learning and the cognitive, affective and psychomotor skills required to solve patients' problems, think critically and intervene creatively and professionally (Nabolsi, Zomot, Wardam & Abu-Moghli, 2012). It "plays a major role in the development of graduates who can deliver high-quality nursing care and does so in a manner that harmonises theory and practice (Praks et al., 2011)", as cited in Onuoha, Prescott and Daniel (2016, p2945). However, clinical nursing education is challenging and can be overwhelming for nursing students who learn how complex real nursing is in a way that is not experienced in other educational interactions. Moreover, clinical nursing education develops students' critical thinking and problem-solving skills and enables teaching of social skills, professional attitude, ethics and communication skills that allows student nurses to develop cognitive functions such as advanced-level thinking and high levels of knowledge. "High-level thinking skills include cognitive functions such as critical, creative and reflective thinking and problem solving, while clinical reasoning is essential for clinical decision-making and diagnostic thinking skills" (Sezer, 2018, p15).

In order to deliver clinical nursing education effectively, the registered nurse should ensure there is adequate time for students to conduct patient-specific discussions to enable them to observe the interactions, communication skills, psychomotor skills and reflect on their observations. Furthermore, nursing students should be offered the opportunity to carry out nursing activities under the supervision of a registered nurse. It is therefore important that the registered nurse provides feedback to nursing students upon completion of the task or activity. The feedback should be provided in a supportive, constructive and non-judgmental manner as it helps the students think about the gap between actual and desired performance and by so doing contributes to their competence and confidence in their professional career (Hardavella, Aamli-Gaagnat, Saad, Rousalova & Sreter, 2017). The registered nurse should realise that nursing students are in a gradual transitional process as they acquire professional nursing skills.

The literature review was conducted in line with the objectives of the study as stipulated in Chapter One, page 11.

2.3 CURRENT DOCUMENTATION USED IN FACILITATING CLINICAL NURSING EDUCATION

Clinical nursing education is an integral part of nursing students' learning experiences, thus various universities and Ministries of Health developed procedure manuals to assist nurses to transfer required skills nursing students. They are designed primarily for nurses in clinical practice in helping them to use a holistic approach when caring for patients and clients, however it can as well serve as reference material for nursing students when they are placed in the wards for practical experiences (MoHSS, 2012). Procedure manuals contain procedures and guidelines to be followed in performing a specific clinical procedure (St John Here for Life, 2019).The purpose of the procedure manual is to facilitate effective clinical nursing education that will help students to successfully achieve the requirements and expectations of clinical nursing by providing students with the necessary knowledge, skills and attitudes to enable them to acquire the required competencies and clinical skills (Hampton University, 2017). Moreover, the procedure manuals serve to promote positive outcomes, enhance socialization skills, refine critical thinking ability and developing interpersonal communication skills in the student (Hampton University, 2017; Athabasca University, 2020). It retains the human needs approach which enables the nurse to

develop an understanding of the patients/clients being cared for (MoHSS, 2013). The procedure manuals outline the psychomotor activities required to perform nursing skills safely to enable nursing students to perform prescribed skills safely and in an effective manner (Miami Dade College Medical Campus, 2019). It enables the nurse to provide care which is based on objective information, sound reasoning which produce measurable and observable results (MoHSS, 2012). It includes the title, definition and pre-knowledge such as basic principles, objectives, indications, assessments, planning, actions, rationale, evaluation, recordkeeping and ethical legal issues (MoHSS, 2012). Additionally, it indicates expectations, improve skills and knowledge development and increase self-confidence during clinical experiences (Hampton University, 2017). The Ministry of Health and Social has a responsibility to ensure that the procedure manual is revised and updated every five years due to new developments in nursing and disease trends such as COVID-19 and monkey pox. However, the current procedure manual was last revised in 2013 and as a result, it does not include current disease trends, thus making it difficult for registered nurses to have uniformity in guiding nursing students to care and manage patients suffering from such conditions.

2.4 BEST PRACTICES IN CLINICAL NURSING EDUCATION

"Best practices refer to all the actions performed by registered nurses that represent the most efficient, effective and prudent course of action during clinical nursing education" (Muthathi et al., 2017, p2). Nursing is a practice-based profession and the importance of clinical nursing education cannot be over-emphasised. Facilitation of clinical nursing education aims to assist nursing students apply the theory of nursing in real-life situations by integrating theory into practical skills (Needam, McMurray & Shaban, 2016). To ensure best practices in clinical nursing education it is vital that nursing students learn the skills and values of the nursing profession. Best practices require decisions about healthcare and clinical nursing education based on best existing, up-to-date, valid and relevant evidence (Bvumbwe & Mtshali, 2018). The identified themes will be discussed in the results section.

2.4.1 Intersectoral collaboration.

Intersectoral collaboration forms a strong foundation for planning and delivery of evidence-based services (Goosby & Von Zinkernagel, 2014). "The complexity of healthcare demands and the

practice environment requires coordinated and collaborative efforts to train nurses" (Bvumbwe et al., 2018, p11). Clinical nursing education is a collaborative arrangement between education providers and health services that draws on the complementary skills, experiences, resources and expertise of the two partners (Darcy Associates, 2016). Although each health-service education-provider relationship will be unique, all relationships that equitably serve the needs and interests of the parties require mutual respect and understanding, whereby the value and importance of both partners are the foundation upon which the relationship is built. This entails a respectful acknowledgement by both partners of the impact of the others' institutional limitations on the design and delivery of clinical education activities. It is important that the health service and education provider work together in a mutually respectful partnership and avoid blame shifting and situations that trap students between competing agendas of the two institutions. Moreover, open communication should be ensured at all levels in order to foster and support trust and collaboration. Therefore, regular dialogue between health service and education providers should be held, including face-to-face meetings to discuss challenges and solve them when they arise. Joint committees and staff exchanges can be useful approaches to enhance intersectoral understanding and involvement. Furthermore, the existence of a relationship agreement which codifies expectations and responsibilities of the partners in the delivery of clinical nursing education is crucial. Thus, legal agreements that cover clinical nursing education activities should be specific. Darcy Associates (2016) are of the opinion that the use of non-specific agreements can provide some flexibility. They also state that there are benefits for both partners in the inclusion of schedules that specify the levels of resourcing, responsibilities of both parties in respect of preparation, induction and orientation of students, expectations in relation to supervision of students, responsibilities of both partners in relation to academic support, expectations regarding communication and interaction and other aspects of partnership (Darcy Associates, 2016).

According to Middleton, Howard, Dohrn, Von Zinkernagel, Hopson, Aranda-Naranjo, Hall, Malata, Bvumbwe, Chabela, Molise and El-Sadr (2014), there is a need for sharing knowledge and information due to various reforms in nursing education, in order to increase opportunities for sharing best practices in nursing. Tiwaken et al., (2015) are of the opinion that good collaboration among stakeholders promotes the creation of a positive clinical environment as well as the development of well-educated and competent nurses. Moreover, effective collaboration can

reduce the theory-practice gap, thereby improving patient safety, decreasing medical errors, reinforcing practice setting and cushioning staff shortages (Bvumbwe, 2016).

According to Peters, Halcomb and McInnes (2013), registered nurses were willing to provide clinical nursing education to undergraduate nursing students, but there was lack of communication between universities and clinical placements and this made support for registered nurses difficult. They therefore preferred increased consultation and communication with the educational institutions in order to be supported in their teaching roles. Hence, nursing educational programmes must provide ongoing support to registered nurses and nursing students in the form of frequent site visits, conferences, workshops and seminars on clinical teaching, guidance, support and evaluation of student progress and opportunities for both in order to obtain feedback on the clinical nursing education experiences. Moreover, the creation of unique management roles or specific departments within service agencies has been used as a means to facilitate communication between educational institutions and registered nurses (RNAO, 2012). Educational institutions can collaborate with these support personnel or departments to ensure that registered nurses' workloads are manageable and that the support personnel act as liaisons between educational institutions and registered nurses.

2.4.2 Stakeholders' involvement.

"A stakeholder is an individual, group or organisation with a vested interest in the decision to implement the guidelines" (RNAO, 2012, p36). Thus, stakeholders include individuals or groups directly or indirectly involved in clinical nursing education. Therefore, "respectful interaction among stakeholders is important when sharing diverse views and expertise" (Bvumbwe, 2016, p320). Stakeholders' involvement should be based on common values, interests, respect and mutual trust as it ensures maximum benefits (Bvumbwe, 2016). It provides a platform for stakeholders to capitalise on each other's' expertise and enable student nurses to receive adequate clinical support which integrates expertise from both academic knowledge and practice competencies (Bvumbwe, 2016). It is imperative that stakeholders in clinical nursing education demonstrate commitment to continued training and professional development of nursing students in the clinical learning environment (Nyoni & Barnard, 2016). Effective stakeholder involvement offers benefits to the consumers, students, educational institutions and the nursing profession at

large. According to Muthathi et al. (2017), clinical nursing education is a vital and fundamental constituent of the educational and professional clinical development of all nurses. Thus, clinical learning experiences provide opportunities for the integration of theory into practice and are essential for the development of social skills essential for effective teamwork. There are five key stakeholders that play a role in clinical nursing education, namely: the health sector; health consumer; nursing profession; the nursing students; and the educational provider (Virgolesi, Marchetti, Piredda, Pulimeno, Rocco, Stievano & De Marinis, 2014). Although all these stakeholders may hold overlapping opinions on clinical nursing education, each of them has distinctive expectations of clinical nursing education.

The health sector plays an important role in facilitating the health of the population through preventative, curative and palliative health care. In order to execute this function, it requires an adequate and prepared workforce in the form of nurses and other health professionals. Registered nurses are responsible and accountable for the quality of care given to patients and as a result, they have a moral duty to teach, mentor and supervise nursing students during their clinical placement, making sure that students can deliver quality care to patients and ensure their safety (Muthathi et al., 2017). By sharing clinical knowledge and expertise, they create a conducive clinical learning environment that supports the development of confidence and competence among students (Schinka & Raia, 2013). The RNAO (2016) is of the opinion that the involvement of MoHSS can assist the institution and clinical setting in obtaining support in terms of necessary human and financial resources to support clinical nursing education and enhance its effectiveness. Furthermore, involvement of the health sector plays an important role in ensuring that the curriculum focuses on the knowledge and skill development needed to adequately prepare nurses to perform competently in a dynamic health care environment (D'Antonio, Brennan & Curley, 2013).

"Engagement of health consumers in curriculum development and other activities related to clinical nursing education allows nursing programmes to reflect the lived experiences of patients and families" (Belita, Carter & Bryant-Lukosius, 2020, p1) which should be translated into subsequent health care improvements. Moreover, the health consumer has a right to expect and receive excellent care from competent and skilled nurses. On the other hand, nursing as a profession has an interest in ensuring that nursing students have effective clinical learning

experiences. In order to achieve this, registered nurses need to be equipped with the necessary knowledge and competencies through identification of their developmental needs and provision of continuous professional development by means of adequate support, guidance and assistance (Fukada, 2018).

Nursing students as stakeholders in clinical nursing education have a better understanding of educational services due to their direct interaction and involvement with the clinical learning environment regarding the quality of clinical nursing education and the challenges they experience (Bazrafkan & Kalyani, 2018). Thus, their involvement in curriculum development can lead to a transformative process for both themselves and their lecturers (Belita et al., 2020). Such involvement may lessen the hierarchical structures between the educational institution and nursing students to enhance positive learning experiences, encourage the educational institution to think differently about their teaching strategies and support succession management by cultivating graduate students' own abilities (Dalrymple, Auerbach & Schussler, 2017; Nosek, Scheckel, Waterbury, MacDonald & Wozney, 2017). Moreover, nursing students would understand the purpose of clinical allocation, being encouraged to prepare for clinical settings and to use clinical time effectively while on attachment.

Furthermore, the education provider is expected to ensure that nursing students have access to skilled teachers while on clinical placement. In so doing, the educational provider should ensure that nurse educators have advanced educational and professional qualifications at a level higher than the qualification they are facilitating (Drasiku, Gross, Jones & Nyoni, 2021).

2.4.3 Communication.

Communication refers to imparting or exchanging information, thoughts or ideas using speech, writing or some other medium such as signals or behaviour (Ali, 2017). It is a key element of sound relationships, collaboration and co-operation which are crucial components of professional practice (Sibiya, 2018). Communication plays an important role in the facilitation process of clinical nursing education and involves the whole health service and not just those domains or individuals that are directly involved in educational activities. Moreover, effective communication is important to interactions between clinical educators and students, administrators and other health professionals and patients (Victoria State Government, 2016). It serves to improve teaching and

learning through the exchange of ideas and information related to curriculum content, learning objectives, assessment, evaluation of student needs and provision of feedback through the processes that facilitate commendation, comments and constructive criticism (Okoli, 2017). Effective feedback allows a student to both reflect on clinical participation or performance and to obtain a fair, objective, clear and constructive evaluation of their performance. As such, feedback should be specific, clear, timely, constructive, balanced and two-way (Monash University, n.d). It aims to help a student identify positive clinical participation and performance and to modify or improve future performance. However, Miller (2012), as cited in Ryan, Ellem, Heato, Mulvogue, Cousins & De George-Walker (2018), reported that registered nurses gave students inconsistent or vague feedback.

Communication between registered nurses and nursing students is often built on long-standing personal relationships and covers both verbal, non-verbal and written modes which focus on maintaining an active dialogue. However, communication needs to occur irrespective of the individuals involved. According to Ozturk, Cilingir and Senel (2013) and O'Driscoll, Allan and Smith (2010), nursing students experience communication problems during clinical nursing education that decrease their self-confidence and create difficulty in adapting to the clinical learning environment. Another upsetting issue was the use of verbal and non-verbal signs by registered nurses which demonstrated disapproval of students for not being prepared or not knowing answers to questions. Students claimed that registered nurses lacked communication skills and they would make them feel bad about themselves (O'Driscoll et al., 2010). Another concern was the judgmental attitudes of some registered nurses towards nursing students. Some registered nurses would have a negative perception of a student and even if the student tried to work on herself the registered nurses would not change their minds about her. "This made some students feel inferior and critical of their registered nurses' communication skills" (Saifan, AbuRuz & Masa'deh, 2015, p26).

2.4.4 Clinical learning environment.

"The clinical learning environment is an interactive network of forces within the clinical setting and includes everything that surrounds students and influences their learning outcomes and professional development" (Papastavrou, Dimitriadou, Tsangari & Andreou, 2016, p2). It is a

valuable component of a nursing programme that provides students with unique learning opportunities in which classroom theory and skills are put to the test with real life situations, peer interactions, a high degree of staff support and moral, interpersonal relationships, guidance, good communication and constructive feedback (Abu Salah, Aljerjawy & Salama, 2018; Kamphinda & Chilemba, 2019). Therefore, preparing students for clinical nursing education entails a positive and supportive environment, caring and approachable nurses as well as good role models. It follows that an optimal clinical nursing environment with adequate support systems has a positive impact on students' professional development, while a poor clinical environment has adverse effects on the process (Onuoha et al., 2016). The clinical learning environment plays an important role in grooming student nurses into professionals and preparing them to function as nurses under the guidance, support and supervision of registered nurses (Kalyani et al., 2019) as a result of their professional obligation to support the education and professional growth of student nurses. It is therefore important that an appropriate clinical learning environment that instils confidence in nursing students during clinical learning and enhances their abilities to acquire new knowledge, comprehend and integrate information and apply learned principles to practice is cultivated (Onuoha et al., 2016). The clinical learning environment must provide students with opportunities to experience the reality of professional nursing practice in a safe and supportive environment in order to maximise learning. It should provide registered nurses with the prospect of offering practice-based teaching to enable them to supervise and guide students to acquire practical skills (Onuoha et al., 2016). This can be achieved by providing students with access to patients/clients, interactions with clinical staff, a context in which the student can critically evaluate practice and reflect, opportunities to observe skilled role models and opportunities to take responsibility, work independently under supervision and receive feedback.

According to Darcy Associates (2016) a positive environment constitutes a safe and welcoming one where students receive appropriate orientation and are included in team-based activities. Students are made to feel wanted and valued and there are facilities and amenities provided for them. A positive environment refers to emotional, cultural, professional and physical safety which is non-judgmental, tolerant and where students feel safe to participate, ask questions, take chances and make mistakes, and where struggling students are identified and assisted and where appropriate learning opportunities are taken into account. This also includes staff administrative duties and team-based work which provides challenging and active learning for students that will

help them to become practically competent. Furthermore, the clinical learning environment consists of clinical staff who display appropriate interpersonal attributes, understand educational principles and are able to fulfill educator roles. Moreover, the clinical learning environment includes appropriate resources and facilities such as capital infrastructure educational facilities, including teaching and learning spaces and resources to which the students and clinical educators have access in order to optimise the clinical education experience. It is important to note that a supportive clinical learning environment improves the nursing students' motivation and professional performance (Salifu, Gross, Salifu & Ninnoni, 2019).

Nursing students require the clinical learning environment to be an environment that is caring and supportive (Subke, Downing & Kearns, 2020) and it should provide nursing students with individual and professional development (Arkan, Ordin & Yilmaz, 2018). However, nursing students can experience the clinical environment as being both facilitative and obstructive to their learning. It may be a source of stress, creating feelings of fear and anxiety which in turn affect the students' responses to learning (Lekalakala-Mokgele and Caka, 2015). Conversely, it can enhance learning if experienced positively. Henderson et al. (2012) as cited in Bradshaw, Tighe and Doody (2018), assert that, for effective clinical learning to occur, students must be integrated into ward activities and staff must engage them in teaching and learning. Furthermore, Emanuel and Pryce-Miller (2013) found that students learn most effectively in environments that facilitate learning by encouraging, supporting and making them feel part of the team. According to Lekalakala-Mokgele et al. (2015), a number of affective attributes are said to influence the student's sense of belonging, including feeling safe, comfortable, satisfied and happy. A sense of belonging is underpinned by a need for affirmation, friendship and being part of the group. They further stated that, when students realise that they are not part of the collective, they may present with low self-esteem and unhappiness, which may result in a diminished learning process. It is therefore important to inculcate a sense of belonging that produces happy group members, because students who feel ostracised by those in authority will not function optimally and may experience low self-esteem and unhappiness, compromising the learning process (Lekalakala-Mokgele et al., 2015).

Furthermore, Lekalakala-Mokgele et al. (2015) are of the opinion that the morale of students can be boosted if they are welcomed, respected, valued, allowed to take responsibility, work independently, have opportunities to practise tasks, receive feedback and collaborate with staff.

All these factors facilitate clinical learning. Lekalakala-Mokgele et al. (2015) hold that students' feelings of being in charge have a genuine impact on the learning situations and are crucial for their desire to take responsibility. They affirm that there is a strong linkage between self-directed learning and positive psychology and attributes that facilitate clinical learning. Conversely, if the environment is unpredictable, unstructured and overwhelming, students can be left with feelings of vulnerability and anxiety (Emanuel et al., 2013). Many factors affecting the clinical environment include staff-student relationships, nurse managers, patient relationships, hierarchy and rituals which can impact on the future competencies and confidence of the nursing students (Morrell & Ridgeway, 2014; Vitale, 2017). The above view was supported by Kalyani et al. (2019) who reported that some registered nurses' negative attitudes towards nursing students' presence in the department, lack of support and nurses and patients' mistrust caused an unfavourable atmosphere in the clinical environment which was very unpleasant for the nursing students. Therefore, consideration needs to be given to ways of alleviating the stress experienced by nursing students during clinical attachment in order to make the environment conducive to learning.

Registered nurses play a major role in promoting a positive clinical environment for students by creating rapport between students and staff, fostering mutual respect and honouring unit procedures. In addition, evidence-based supports would include comprehensive orientations, presence of registered nurses, use of simulation for skill acquisition, regular constructive feedback and support by registered nurses (Bradshaw et al., 2018). Several authors have observed that it is important that students fit in and are accepted as part of the group during clinical placement, as this kind of welcoming environment encourages active participation and provides learning opportunities (Levett-Jones & Lathlean, 2009; Nash, Lemcke & Sacre, 2009) as cited in Lekalakala-Mokgele et al. (2015). Staff members need to be available, friendly and willing to teach students in order to construct a climate conducive to learning (Lekalakala-Mokgele et al., 2015). However, a study conducted by Adjei, Sarpong, Attafuah, Amertil and Akosah (2018) found that the learning environment was unsupportive as evidenced by the poor relationship that existed between students and staff nurses. According to Lawal, Weaver, Bryan and Lindo (2015) the poor interpersonal relationships between nursing students and registered nurses in the clinical setting often hindered clinical learning and had a negative impact on their clinical performance. The behaviour of students, including late arrival at work, the use of mobile phones on duty, lack of commitment to clinical work and absenteeism without permission as documented in a similar

study in Ghana might have influenced the reaction of the registered nurses toward the students. Other literature cites different reasons for a lack of support for students in the clinical setting, which include registered nurses seeing facilitation of learning or supervision as extra work for them and the unavailability of staff (Lekalakala-Mokgele et al., 2015).

2.4.5 Qualities of a facilitator

Qualities refer to a set of quality indicators that pertain to the relevance of educational content and competence of instructors (Schindler, Puls-Elvidge, Welzant & Crawford, 2015). Clinical nursing education of nursing students is supported by registered nurses who serve as facilitators, supervisors and clinical teachers who are instrumental in professional and personal development of student nurses, including their socialisation into the nursing profession (Needham, McMurray & Shaban, 2016). "These registered nurses are expected to possess certain qualities that enhance knowledge, skills and attitudes for nursing students and promote nursing education to the maximum level in order to produce well-equipped students" (Alamri & Lo Dorico-Agunod, 2019, p2). Therefore, a good facilitator should possess the following qualities, skills and knowledge:

2.4.5.1 Theoretical knowledge and clinical competence

Registered nurses must possess current theoretical knowledge and clinical competence and support ongoing professional development opportunities that promote the transfer of theory into practice. According to Madhavanprabhakaran, Shukri, Hayudini and Narayanan (2013), registered nurses should possess professional knowledge, clinical competence, role modelling and communication skills that will enable them to facilitate the nursing students' clinical learning and influence their professional and personal development and motivation for continued learning throughout their careers. Registered nurses who provide clinical nursing education should be adequately prepared and supported in their role so that they can provide quality nursing education and feel confident and competent in the execution of their duties. It is therefore essential that they should be knowledgeable both theoretically and clinically, including having recent clinical experiences within a practical setting. Kamolo, Vernon and Toffoli (2017) asserted that educated and knowledgeable nurses plan and use student-centred teaching methods more than registered nurse-centred approaches. If registered nurses are knowledgeable in these areas, they may also have an awareness of their organisation's culture and policies and can empower students to understand

how these elements influence patient care. Therefore, educational institutions and health services should support ongoing educational development opportunities in clinical practice and ensure that registered nurses have diverse clinical experience related to the content they are teaching (RNAO, 2016).

Furthermore, RNAO (2016) is of the view that the gaps in theoretical knowledge and practice possessed by registered nurses can inhibit the transfer of theoretical knowledge into practice. According to a study by Cheraghi (2007), as cited in RNAO (2016), the majority of the nursing students interviewed stressed that the skills they were taught in the classroom setting did not resemble what was demonstrated in the clinical setting, which may be a reflection of inadequate continued professional development among registered nurses. Participants in the study also felt that important characteristics of registered nurses such as having a speciality in a specific clinical field as well as current and ongoing extensive clinical education experience should be included (RNAO, 2016). Another study done by Andrews et al. (2006), as cited in Kristofferzon, Martensson, Mamhidir and Lofmarke (2013), revealed that many registered nurses are unprepared for their teaching role and they often lack support from training institutions. Most registered nurses have a more traditional training without academic education and this may limit their ability to provide proper clinical education.

Furthermore, it is imperative that registered nurses are skilled and confident in clinical procedures, education and assessment. However, some studies have shown that registered nurses are not always skilled in these processes. Miller (2012), as cited in, Ryan et al. (2018), reported that registered nurses gave students inconsistent or vague feedback. Meanwhile, Suplee, Gardner and Jerome-D'Emilia (2014) found that registered nurses did not have a good understanding of the nature of clinical education. Without specific training in nursing education, registered nurses were limited and drew on personal knowledge and experiences only, which indicates that they were poorly prepared for the teaching role because they were not up to date with contemporary educational issues and were likely to lack confidence in educational developments that academics wished to implement. Furthermore, Suplee et al. (2014) revealed that educational preparation and professional development impacted on registered nurses' effectiveness in their teaching role.

Andrews and Ford (2013), as cited in Ryan et al. (2018), reported that offering professional support for registered nurses provided an opportunity for them to enjoy and feel rewarded in their teaching role. Moreover, a study conducted by Karuhije (1986), as cited in Vitale (2017), concerning the extent to which graduate programmes prepared registered nurses for clinical teaching responsibilities, revealed that the majority (70%) of the respondents felt that their graduate programme did not adequately prepare them to be effective clinical teachers. They desired more content on clinical teaching strategies and evaluation approaches to student performance. Based on the above, educational institutions and health facilities should be more conscious of the clinical experience and education among registered nurses. These experiences must be supplemented with ongoing professional development opportunities in order to promote the continued transfer of theory to practice. Opportunities for continued development include the clinical instructor course, workshops and seminars which provide education to registered nurses who are interested in continuing clinical nursing education.

2.4.5.2 Critical thinking

"Critical thinking is a mental process and subtle perception, analysis, synthesis and evaluation of information collected or derived from observation, experience, reflection, reasoning or the communication leading to conviction for action" (Papathanaiou, Kleisiaris, Fradelos, Kakou & Kourkouta2014, p283). Critical thinking is important in the nursing profession, given its potential impact upon the care that patients receive. The complexity and ever-changing nature of the nursing profession, together with the need for care using evidence-based practice, require critical thinking as a competence (Perez, Canut, Pegueroles, Llobet, Arroyo & Merino, 2015). Evidence-based practice is defined as the use of scientifically proven principles to provide safe and competent care (White-Williams, Patrician, Fazel, Degges, Graham, Andison, Shedlarski, Harris & McCaleb, 2013). Therefore, critical thinking requires evidence-based research which informs practice, the willingness of the registered nurse to reassess personal attitudes and belief systems and to accept change and different opinions (Tyne, 2018). Critical thinking is characterised by high-level thinking which involves knowledge, experiences, disposition, attitudes and intellectual abilities (Carbogim, Oliveira & Puschel, 2016). These qualities will enable the registered nurse to display confidence, contextual perspective, creativity, flexibility, interest, intellectual integrity, open-mindedness, perseverance and reflection (Desrosiers, 2017) and be in a position to encourage

nursing students to think beyond their task or skill to why they are doing what they are doing and the effect thereof. The consequence of a lack of critical thinking is that it creates a situation in which nurses would find it difficult to meet new dimensions of the changing environment (Msiska, Smith & Fawcet, 2014).

2.4.5.3 Role modelling

Role modelling is the process in which registered nurses demonstrate clinical skills, model and articulate thought processes and manifest positive professional characteristics (Passi, Johnson, Peile, Wright, Hafferty & Johnson, 2013). It is a very important attribute or quality of registered nurses, critical to the clinical learning of nursing students as it serves as a way to transmit values and attitudes and the ability to be nonjudgmental and work in a team (Jack, Hamshire & Chambers, 2017). In order to ensure effective facilitation of nursing students' clinical learning, it is essential that registered nurses consider the way in which they facilitate learning both consciously or unconsciously (Jack et al., 2017).

Nursing students learn by observing and role modelling professional values, behaviours and attitudes of registered nurses in the clinical learning environment (Haider, Gill & Riaz, 2020). Therefore, RNAO (2016) is of the opinion that student nurses should be exposed to role models in the clinical learning environment if they are to successfully learn and demonstrate specific behaviours or skills. Registered nurses should role model professionalism by always being prepared, using professional communication, maintaining professional boundaries and showing respect and fairness (Matthew-Maich, Martin, Ackerman-Rainville, Hammond, Palma, Sheremet & Stone, 2015). It is important that registered nurses display behaviours, including the need to act professionally at all times, which nursing students can emulate (Johnson, 2015). Role modelling is effective when used as an intentional learning process linked to clinical practice in which the registered nurse clearly designates and explains her behaviours and clinical judgements (Passi et al., 2013).

2.4.5.4 Communication skills

Communication is an important skill in clinical learning and it is considered as an essential criterion for performing high-quality, specialised tasks (Nazari & Mohammadi, 2015). It

"encompasses an ability to establish respectful, non-stressful educational communication as well as understanding students and paying attention to their individual differences" (Nazari et al., 2015, p18). Appropriate and polite communication with nursing students gives them a feeling of being important and reinforces their motivation and individual identity during clinical performance (Joolae, Farahani, Amiri & Varaei, 2016; Nasrin, Soroor & Soodabeh, 2012). According to Saifan et al. (2015), communication is an important factor that supports nursing students to adapt to the clinical learning environment and promotes their educational process. Surprisingly, more than half of the interviewees complained that they lacked support in the clinical area and stated that they were treated improperly by registered nurses, which caused a bigger communication gap for most of the students (Saifan et al., 2015).

2.4.5.5 Interpersonal relationships

"Interpersonal relationship is the connection that is shared between registered nurses and nursing students which is a core element in the empowerment and motivation of nursing students to learn in the clinical learning environment" (Bryan, Weaver, Anderson-Johnson & Lindo, 2013, p41). It is regarded as an important quality of a registered nurse. According to Sabog, Caranto and David (2015), registered nurses should keep a professional relationship with nursing students and should not socialise with them in order to show ingenuousness. A registered nurse should be able to interact with student nurses and be capable of communicating professionally, reinforcing cooperation and creating more learning opportunities for them (Nazari et al., 2015). According to Hayajneh (2011), registered nurses should be available at all times and be accessible in helping and guiding the nursing students as this makes clinical work much more interesting and encourages cooperation and active learning. A study done by Soriano and Aquino (2017) found that nursing students perceived a good facilitator as being organised, self-confident and self-critical and having a good sense of humour.

2.4.5.6 Teaching skills

Clinical teaching is at the heart of nursing education, because it exposes nursing students to the clinical learning environment and clinical nursing education, which is a technique used by registered nurses to assist nursing students to obtain skills and knowledge in dealing with the real health care set-up in order to develop into expert nurses (El Banan & Elsharkawy, 2017). Nursing

education institutions use registered nurses working in the clinical learning environment to train nursing students in the acquisition of skills and in integrating theory with practice. It is crucial that registered nurses have some skills, experience and awareness of their clinical teaching role (Nyoni et al., 2016). Teaching skills entail the ability to teach and include the skills required to transmit knowledge, skills and attitudes from the registered nurse to the nursing students (El Said, Shaban, Ghadery & Elmelegy, 2018). Furthermore, Hatem, Searle, Gunderman, Krane, Perkowski, Schutze and Steinert (2011) assert that knowledge for teaching requires an in-depth understanding of the subject matter in order to be able to integrate it and make connections with the subject matter across disciplines and with students. According to Passi et al. (2013), important teaching skills include the establishment of rapport with nursing students, creating a supportive clinical learning environment, using different teaching methodologies and being committed to the growth of nursing students. Furthermore, effective teaching also requires expertise in one's discipline and an understanding of the fundamental principles of teaching (Hatem et al., 2011). Teaching ability is related to the performance and knowledge of registered nurses in the clinical learning environment which reflects the performance of the nursing students associated with cognitive gain (Soriano et al., 2017). A lack of knowledge in the basic principles of clinical teaching reduces the effectiveness of the registered nurse in identifying opportunities for teaching, assessing students fairly and giving feedback and debriefing sessions (Nyoni et al., 2016).

Effective clinical teaching plays a crucial role in the undergraduate nursing programme as it provides opportunities for student nurses to apply theory learned in the classroom to the real world of clinical nursing and for socialisation of student nurses into practice (Bourgeous, Drayton & Brown, 2011). It develops the professional skills and knowledge needed in life-long learning, critical thinking, creates self-confidence and ensures that nursing students are able to make their own decisions (El Said et al., 2018). Therefore, clinical teaching requires knowledgeable, skilled and experienced registered nurses who have the ability to teach nursing students effectively. According to Sabog et al. (2015), the registered nurse should be skilled in applying proper teaching strategies in order to guide nursing students properly. Registered nurses should be able to stimulate students' interest, encourage active participation and be well prepared for teaching (Soriano et al., 2017). Moreover, based on the study done by Reising, James and Morse (2018), nursing students conveyed that registered nurses must have knowledge and the ability to convey that knowledge. A study conducted by Alamri et al. (2019) revealed that nursing students indicated that the teaching

behaviour of the registered nurse helped them to bridge the gap between theory and practice. However, Nyoni et al. (2016) indicated that even though registered nurses expected that their clinical position would encompass a teaching role, they felt that there was no consultation or preparation for clinical teaching. They complained that they were involved in the training of nursing students without their opinions or challenges being taken into consideration.

2.4.6 Shared vision

"A vision is defined as the depiction of a future that is desirable, offers guidance and gives meaning to actions and behaviours within an organisation" (Martin, Scharer, Rageth, Ulrich, Wehrli & Frei, 2016, p2). Nursing is a dynamic profession and health care is changing due to advances in medical sciences, technologies, new research findings, advanced diseases and consumer demands (Elfaki, 2019). These changes necessitate ongoing training to prepare nurses to deal with them adequately. Therefore, effective nursing education and research are essential to strengthen the contribution of nursing services in order to achieve the required improvement in health outcomes (Scherer, 2007), as cited in Elfaki (2019). Greenwood (2000), as cited in Bvumbwe (2016), urges that the training of nurses should involve shared responsibility and that academia and practice players should collaborate to aim at a common goal. In order to achieve this, there is a need to have a clear vision that has to be shared and communicated to all stakeholders in nursing education. Schinka and Raia (2013) point out that while the academic theory and practice of nursing are dissimilar, they share values regarding nursing education.

Nurses have a critical contribution to quality, safe, patient-centred, accessible and affordable healthcare (Salmond & Echevaria, 2017). To deliver this service, the nurses and other stakeholders involved in clinical nursing education must understand how clinical nursing education should be delivered and be proactive and passionate in the change. These changes require a new or enhanced skill set, a renewed focus on patient care, coordination, training and quality improvements (Salmond et al., 2017). They also require goals, partnerships, processes, leadership and a shared vision. Inspiring a shared vision among all stakeholders is important for successful practice because the vision attracts commitment, energises people, creates a meaning for people's work, establishes a standard of excellence and bridges the present and the future (Nanus, 1992), as cited in Martin, McCormark, Fitzsimons and Spirig (2014). According to Hoyle (2007) and Nanus

(1992), as cited in Martin et al. (2016), a vision helps employees of an organisation develop an image of a realistic, believable and attractive future, thereby becoming an important source of motivation and inspiration. As stated by Mayer and Carroll (2011), a shared vision provides clarity of values and beliefs to all stakeholders and is essential to guarantee that there is an agreed focus and targeted outcomes. The vision helps stakeholders to prioritise and evaluate clinical nursing education and decisively direct change processes in practice. According to Martin et al. (2014), the vision provides clear orientation and a strong purpose in practice. Moreover, it helps those involved to stay on track and set priorities accordingly.

A vision is only effective if it is shared by all stakeholders in the organisation who identify with it and work as one to achieve it (Martin et al., 2016). This explains why it is crucial that the stakeholders are empowered through regular communication of the vision so that the target objectives can be internalised by all. This will enable stakeholders to have a sense of the vision and ownership. Thus, ownership of the vision depends on whether stakeholders were integrated from the beginning into the creation of a shared vision. The process of ownership enables the vision to be integrated into each individual's thoughts and actions and allows it to be internalised by each member of the group through repeated reflection and critical examination (Martin et al., 2016). Therefore, the more clearly the vision defines the scope of the future, the more transparent the organisational process will be and the more effectively the staff will be able to make use of and shape their scope of practice (Martin et al., 2016).

2.5 EXPERIENCES OF REGISTERED NURSES AND LECTURERS CONCERNING CLINICAL NURSING EDUCATION

This section focuses on the views, perceptions and experiences of registered nurses concerning clinical nursing education which was obtained through the literature review. The following were the experiences, namely: working conditions; workload; commitment from nursing students; motivation from registered nurses; and resources. These are described below.

2.5.1 Working conditions

"Working conditions refer to the interaction of registered nurses with the physical work environment and conditions such as working tools, equipment, materials and schedules" (Thulth & Sayej, 2015, p102). Working conditions are important since they can be reflected in the provision of quality care and determine the satisfaction of registered nurses with the clinical environment (Suliman & Aljezawi, 2018). A supportive organisational system, satisfactory human and material resources and a healthy clinical learning environment should all form part of working conditions (Baljoon, Banjar & Banakhar, 2018). Registered nurses are important facilitators and are at the forefront of clinical nursing education as they facilitate learning, provide teaching by guiding and instructing students to gain knowledge and develop practical skills, assess clinical skills, evaluate competencies and provide feedback to students (Lamb & Norton 2018).

However, according to Bvumbwe et al. (2015), a number of factors were identified that reduce nurses' commitment to provide clinical nursing education to nursing students. These include feelings that one's work is not meaningful or important, low levels of confidence, dissatisfaction with the ways one's own abilities were being used, a poor atmosphere at work and low quality of leadership. Furthermore, the study revealed that the majority of the registered nurses were dissatisfied with the conditions in which they worked and operated. Frequently cited issues included a shortage of staff and work overload. Apart from their teaching role, registered nurses are responsible for outpatient care. Some registered nurses stated that no matter how interested they were in teaching students, there were just too many tasks to be done by the same people. The registered nurses expected that if they were assigned to facilitate students' clinical education, the nurse manager would relieve them of some of their daily routines, but that was not the case. They still found themselves doing almost everything that they usually did. Furthermore, registered nurses alluded to the fact that the tasks they were overloaded with denied them the time to interact and provide clinical education to students. They also narrated that sometimes the ward could be very busy and students were the last priority (Bvumbwe et al., 2015). Findings from this study also indicated that registered nurses were demotivated and stressed by the lack of clear role expectations by their unit managers. According to Neary (2000) and Ehrenberg and Haggblom (2007), as cited in Kristofferzon et al. (2013), this dual function was demanding and frustrating due to the pressure of clinical commitment and lack of time scheduled for students. Therefore,

registered nurses felt that there should be realistic expectations of their role and that teaching students should be part of their performance evaluation. Nurse managers did not regard clinical education of students as part of their primary role: patient care took priority over teaching nursing students.

2.5.2 Workload

Workload refers to the amount of work a registered nurse has to perform within a specified time frame (van den Oetelaar, van Stel, van Rhenen, Stellato & Grolman, 2016). A workload that is too onerous for nurses is caused by increased patient volume and staff shortages in the clinical learning environment. This impacts on clinical nursing education and the support that registered nurses provide to student nurses, as an excessive workload does not allow them sufficient time to facilitate clinical education. Therefore, registered nurses felt frustrated by the pressure to provide clinical nursing education and support to an increasing number of nursing students (Baraz et al., 2015). In addition, heavy workloads and attitudes of staff compromised the clinical nursing education of nursing students (Chuan & Barnett, 2012). This situation was illustrated by a study conducted in Ghana by Adjei et al. (2018), where some students reported that they were not supported by the registered nurses during a clinical attachment due to the heavy workload of registered nurses. They further voiced concerns that the situation was worsening with staff shortages that adversely affected the availability of registered nurses to provide clinical nursing education. According to Mongwe (2009), as cited by Daniels, Linda, Bimray and Sharps (2014), registered nurses had increased workload and as a consequence, found it difficult to facilitate clinical nursing education and this situation was exacerbated by staff shortages. Moreover, Haider et al. (2020) also found that heavy workloads hampered effective role modelling.

2.5.3 Commitment from nursing students

"Commitment is defined as a state of being in which an individual becomes bound by their actions which sustain their activities and involvement" (Awuah-Pearson, Sarfo & Asamoah, 2013, p25). Nursing students are expected to commit themselves to clinical learning activities in order to acquire clinical skills, appropriate attitudes and psychomotor skills. However, some of their behaviour, including coming late to work, the use of mobile phones on duty, lack of commitment

to clinical work and absenteeism without permission, are clear demonstrations of students' lack of commitment towards their studies (Awuah-Pearson, et al., 2013; Lekalakala-Mokgele et al., 2015). Registered nurses reported that nursing students' lack of commitment was frustrating and time-consuming in relation to the completion of planned procedures, along with the failure to recall previously learned practice. The findings of the study are consistent with the results of a study on skills acquisition by Bonner and Greenwood (2006), as cited in Lamb et al. (2018), which found that the amount of time it took an individual to complete a task depended on its complexity and exposure to the activity. The study further confirmed the challenges that registered nurses experienced when nursing students were inadequately prepared for clinical nursing education and discussions.

According to a study done in Cameroon by Eta et al. (2011), it was also found that some students did not take clinical learning seriously. The registered nurses reported that some students were irregular, lacked respect for staff and were not willing to learn. This is in line with a study by Cederbaum and Klusaritz (2009), as cited in Eta et al. (2011), who stated that registered nurses may encounter difficulties with students such as personality conflicts and lack of interest. However, a study by Rajeswaren (2016) in Botswana highlighted that in spite of the challenges experienced by the nursing students in the clinical area, most of the nursing students accepted their role positively and believed that self-evaluation of knowledge, skills and attitudes would contribute to their professional growth. The nursing students valued the contribution of registered nurses and lecturers and emphasised that their role increased the students' self-confidence, socialisation and professional independence. Moreover, almost 80% of the nursing students felt that they needed to take an active role in their own learning.

2.5.4 Motivation of registered nurses

"Motivation is defined as the force within an individual that influences or directs behaviour" (Baljoon et al., 2018, p1). Registered nurses' motivation has an impact on their well-being, satisfaction, performance and commitment. The literature cites different reasons for lack of motivation that consequently led to lack of support for students in the clinical environment, one of these being that registered nurses saw facilitation of clinical nursing education as extra work for them (Clarke, Gibb & Ramprogus, 2003; Mongwe, 2001), as cited in Lekalakala-Mokgele et al.

(2015). Another limiting factor outlined by Andrews et al. (2006), as cited in Kristofferzon et al. (2013), is that many registered nurses were unprepared for their teaching role and they often lacked support from training institutions. Most registered nurses had a more traditional education than academic education and this might have limited them in providing proper clinical nursing education.

A contrary finding was made in a study done by Ryan et al. (2018) which revealed that the students concerned felt supported enough to achieve tasks within their scope of practice confidently and independently. Students further pointed out that the registered nurses were fantastic as they were willing to support and guide them. Other positive remarks focused on the opportunities students were offered to practise and observe advanced leadership, communication skills, clinical reasoning and critical thinking.

2.5.5 Resources

"Resources are the aspects of a job or person that are instrumental in accomplishing work-related goals, to deal with a job or demands and to achieve personal development" (Venz & Sonnentag, 2015, p97). Resources include humans, time, materials, equipment and infrastructure. These resources are needed by all role players such as registered nurses, lecturers and patients who are involved in the clinical nursing education of nursing students in order to enable them to achieve their clinical learning outcomes. D'Sousa, Ventatesaperumal, Radhakrishnan and Balachandran (2013) maintain that when nursing students are supported with adequate resources in the clinical learning environment, it enhances their clinical learning. According to Rajeswaran (2016), the nursing students expressed concern about the lack of support from the organisations, both the training institution and the hospitals where they practised. The study revealed that the majority of the students mentioned that non-availability of the necessary equipment and sterile packs impacted their clinical practice and forced them to improvise in providing care to patients. Another study done by Asirifi et al. (2017) in Ghana discovered that inadequate equipment both in clinical practice and the clinical learning environment was a huge barrier to effective clinical nursing education and learning. In order to support student learning, some clinical settings demand that students provide their own items such as thermometers, gloves, stethoscopes and hand towels in

order to engage in hands-on opportunities. These items impose financial constraints on student learning.

According to Rajeswaran (2016), it was reported that frequently there was no equipment, including trolleys, and this delayed clinical nursing education. An undergraduate student nurse further reported that the unavailability of disposable gloves on the wards made it difficult for them to practise. The study further revealed that dressing materials and packs were also not available, compromising sterility. Registered nurses also shared their frustration on providing care with limited equipment. They reported that they lacked clinical teaching and learning equipment to practise in the skills laboratory and in the wards. Thus, insufficient equipment may lead students to practise 'short-cut' methods to complete the task quickly, so preventing them from mastering the clinical skills correctly. These findings correspond with a study by Eta et al. (2011) that indicated that shortage of working and teaching materials in the clinical learning environment had a negative effect on the clinical teaching of student nurses. Naranjee (2012) also reported that student nurses did not carry out procedures appropriately due to the shortage of equipment and supplies in the clinical learning environment.

2.5.6 Lecturer-student ratio and workload

"Lecturer-student ratio is the number of students per lecturer or the average number of students a registered nurse instructs" (Koc & Celik, 2015, p66). The presence of the lecturer in clinical practice is very important to nursing students. The lecturer's clinical role is instrumental in improving practice links or acting as a liaison between theory and practice (Omisakin, 2016). This role included guiding, directing, supporting, supervising, motivating, facilitating problem-solving, advocating and assessing nursing students in practice (Omisakin, 2016; Price, Hastie, Duff, Ness & McCallum, 2011). However, the high lecturer-student ratio has been reported as a major concern for lecturers as it decreases the time available for individual student-lecturer interactions.

According to Luhanga (2018), the large clinical group size of student nurses made it difficult for lecturers to simultaneously supervise and provide clinical nursing education to nursing students and could potentially compromise patients' safety. Another barrier identified was the increased workload among lecturers that hindered them from fulfilling clinical expectations because the priority of being an educator, researcher and practitioner posed many challenges for them (Price

et al., 2011). According to Boyd (2010), as cited in Lindberg (2018), the first time as a lecturer in a higher educational institution was an almost overwhelming period with very high demands on teaching and a tension between supporting students and having possibilities for self-development as a lecturer. Based on that, the lecturers felt that the multifaceted nature of their job was difficult to manage due to different expectations from universities and clinical areas. This motion was supported by a study done by McSharry, McGloin, Frizzel and Winters-O'Donnell (2010) in the Republic of Ireland which showed that the competing demands of scholarly activities impacted negatively on time spent with nursing students and provision of clinical nursing education.

The lecturer-student ratio was viewed as an important factor in producing effective education; however, the ratio is wider in the theory classes than in the clinical setting. Dealing with a smaller number of students was expected to reduce the gaps in nursing education. According to a study by Saifan et al. (2015), one of the students pointed out that a large number of students in the clinical environment affected her ability to learn and understand. The student indicated that dealing with a large number of students influenced the time spent with each student and impacted negatively on their learning because it restricted the ability of the registered nurse to practise what was taught in the theory. Therefore, the lecturer-student ratio was viewed as problematic. A study by Saifan et al. (2015), revealed that most students expressed that the lecturer-student ratio was acceptable. One student stated that the number of students did not affect her learning. She further explained that there were many universities that had a huge number of nursing students in one class compared to her school that had only a small number and this was not a problem because fewer students were allocated to a department for clinical exposure.

Downplaying the student numbers in the class or in practice does not mean that numbers are not an important issue in clinical nursing education. The influence of the number of students on the quality of clinical nursing education has been discussed in the literature (Nabolsi et al., 2012). Raising this problem by some students may reflect that the problem exists in some practical courses, but not all of them. It could be argued that the smaller the number of students in the clinical environment the better the lecturer will be able to guide, support and provide clinical education. It gives more room and opportunities for the lecturer to deal individually with each student.

2.6 EXPERIENCES OF NURSING STUDENTS ON CLINICAL NURSING EDUCATION

This section highlights the challenges experienced by student nurses concerning clinical nursing education, identified through the literature review. The following were factors identified by student nurses to have affected clinical nursing education and are described below:

2.6.1 Interpersonal relationships

"Interpersonal relationship is a mutual readiness of people to communicate in a certain way accompanied by emotions in the context of communication and other shared activities" (Kleptsova & Balabanov, 2016, p2148). Such relationships between registered nurses and nursing students are important for nursing students' clinical learning. A positive interpersonal relationship is characterised by clear communication, trust, support, respect, mutual understanding, caring and motivation (Bryan et al., 2013). It is therefore important that students share a good relationship with clinical nursing staff as this facilitates the identification of the different learning needs and styles of the students. Andrews and Roberts (2003), as cited in Lawal et al. (2015), argued that the most crucial factor that influences learning in the clinical environment is the relationship between the staff and the nursing students. This point was supported by Elcigil and Sari (2011) who agreed that the relationship between nursing students and nursing staff influenced the students' clinical learning. Comparably, a sample of undergraduate nursing students in Australia reported that the unsupportive clinical environment resulted in a delay in meeting their clinical training objectives (Lawal et al., 2015).

Nursing students consider clinical nursing education to be a vital component of their learning process because it plays an important role in enriching clinical competencies by improving their learning and enhancing their skills (Labeeb, Rajith, Ibrahim, Kamal & Francis, 2017). They expect a supportive clinical learning environment that is innovative, creative and highly individualised where they feel that they are an integral part of the healthcare team and feel comfortable enough to make mistakes and learn from them. Students learn effectively with nurses who appreciate their individuality and consider that everyone learns differently. It is through clinical attachment that students start to develop the necessary attributes of caring, critical thinking, application of theoretical knowledge, competencies and clinical skills. Therefore, members of the healthcare team including registered nurses should provide positive clinical experiences to nursing students

in order to facilitate their progress from novice to expert levels of clinical competence (Lawal et al., 2015).

The student's ability to foster and maintain positive relationships with registered nurses was considered crucial to their experiences of clinical education and practice. The attitude, approach and neutrality of the registered nurses create trust among the students. However, lack of harmony, communication and poor interpersonal relationships between the registered nurse and the students negatively affect the students' psychological well-being and their practical learning. When negative relationships exist, students feel excluded. Some students commented that the registered nurses shouted at and corrected them in front of patients and visitors. As a result, the patients lost confidence in the students and did not allow them to give further care. In addition, some registered nurses did not allow nursing students to touch the patients and equipment and this demoralized the students in providing care to patients and made them hesitant to ask for assistance from registered nurses.

Lofmark and Wikblad (2001), as cited in Kristofferzon et al. (2013), stated that the negative experience of nursing students during clinical education included a sense of anger over being referred to as 'the student' and a feeling that the registered nurses did not rely or trust them. The students were of the opinion that registered nurses should know how to deal with them and should help them to learn while they were in the clinical setting. According to Jamshidi, Molazem, Sharif, Torabizadeh and Kalyani (2016), nursing students reported poor interpersonal relationships between registered nurses and nursing students. Students were called names, harassed and were in most instances used as scapegoats for anything that went wrong in the departments. They were labelled by registered nurses as difficult and dangerous to patients and this compromised open and honest interaction between them which impacted negatively on clinical education and learning. Student nurses further stated that they would appreciate it if registered nurses did not shout at them in public but corrected them in private, find out their social conditions and provide more time to complete the procedures.

Furthermore, nursing students were of the opinion that registered nurses should provide more demonstrations in the clinical setting, organise post-clinical meetings on everyday outcomes, give more assignments and continuous feedback. In addition, students recommended that clinical

education should be more instructive, repetitive, give more emphasis to expected learning objectives, use different ways of teaching and accept them as part of the team (Labeeb et al., 2017). It is important to inculcate a sense of belonging that produces happy group members where students feel that they are part of the team. Students who feel ostracised by those in authority will not function optimally and may present with low self-esteem and unhappiness, compromising the learning process (Baumeister et al., 2002; Tabane & Human Vogel, 2010) as cited in Lekalakala-Mokgele et al. (2015). Furthermore, Labeeb et al. (2017) reported that most students stated that they did not apply special skills like intramuscular injection (IMI) and intravenous (IV) in the clinical areas because they were not allowed to practise these skills and were allowed only to observe. The registered nurses were not confident in the nursing students and were afraid that patients would complain if these procedures were done by them. This lack of respect for nursing students and refusal to allow them to perform activities created profound disappointment and feelings of being neglected and rejected.

Nursing students have identified poor interpersonal relationships with clinical staff as barriers to learning within the clinical environment. Negative experiences in the clinical environment often hindered learning and had a great impact on students' attitudes and confidence. Regarding the hindering factors of clinical learning, the majority of students expressed those non-supportive and un-cooperative registered nurses who obstructed clinical education and learning (Lawal et al., 2015). The exposure to intense incivility led to students' abandonment of their programme of study in some instances. It is therefore of paramount important for registered nurses and nurse educators to ensure that the clinical environment is ideal for learning.

According to Lekalakala-Mokgele et al. (2015), the morale of students can be boosted if they are welcomed, respected, valued, allowed to take responsibility and work independently, have opportunities to practise tasks and receive feedback, collaborate with staff and gain an overview of the setting and a sense of control. All these are factors considered to facilitate learning in the clinical environment. According to Vitale (2017), factors such as staff-student relationships, nurse managers, patient relationships and hierarchy affect the clinical environment. It is therefore important that consideration is given to alleviate the stress experienced by nursing students during clinical allocation in order to enhance clinical nursing education. In a study by Saifan et al. (2015), it was reported that registered nurses expected the students to know how to behave like a nurse

from day one, while they did not provide proper guidance. In addition, registered nurses asked questions that made students feel stressed. Nursing students were made to feel they were not part of the ward team as a result of the atmosphere, attitudes of the nursing staff and the supervision received on the ward (Onuoha et al., 2016). However, the above view was rejected by several students who said they had enjoyed good support from registered nurses. They stated that registered nurses made them feel that they were students who were still learning and that it was not shameful to be wrong or to make a mistake. These attitudes encouraged students to ask more questions with no feeling of embarrassment that they did not know (Saifan et al., 2015).

2.6.2 Emotional reactions

"Emotions are short-lived, feeling-purposive-expressive-bodily responses that help an individual adjust to the opportunities and challenges faced during life events" (Macintyne & Vincze, 2017, p63). A range of emotional reactions, both positive and negative, are experienced by nursing students in the clinical learning environment, and affect their clinical learning (Weurlander, Lonn, Seeberger, Broberger, Hult & Wernerson, 2018). These include positive reactions such as joy, interest and satisfaction, while negative reactions include anger, anxiety, stress, sadness, guilt and shame (Weurlander et al., 2018). The clinical nursing education and learning climate are most influential in the development of nursing skills, knowledge and professional socialisation of student nurses. However, the unpredictable nature of the clinical learning environment can create some challenges for them. According to Jamshidi et al. (2016), the nursing students' behaviours and performances change in the clinical setting which can negatively affect their learning progress in patient care and professional performance. In a study conducted in Jordan by Nabolsi et al. (2012), students revealed that during clinical allocations, they experienced periodic feelings of despair, frustration, anxiety, uncertainty and lack of motivation. They also stated that they lacked clarity and understanding regarding their role and expectations in the achievement of clinical learning outcomes, which resulted in frustration and stress. A study by Andrews et al. (2005), as cited in Nabolsi et al. (2012), suggested that students need to be motivated and encouraged to be proactive in reaching their learning goals. The findings of this study endorse the provision of a supportive clinical environment that optimises the teaching and learning process.

During clinical allocations, nursing students experience challenges which can cause negative emotional reactions; for instance, being in an unfamiliar clinical environment and exposed to new events can be very stressful. This was supported by studies done by Jamshidi et al. (2016) and Alshahrani, Cusack and Rasmussen (2018), where students expressed that the initial clinical experiences were stressful for them because of fear of hurting the patient, making mistakes, harming the patients, not being fully competent in certain procedures, having inadequate time allocation for the procedures and an overload of clinical activities. According to Mamaghani, Rahmani, Hassankhani, Saunders, Dean, Ferguson and Irajpour (2019), many nursing students reported excessive fear of dealing with registered nurses because of being misused and humiliated, fear of violence and medical errors. Such reactions had a significant effect on their learning experience. Many of the students who participated in the study revealed that they became distressed and overwhelmed in dealing with new experiences and caring for patients in the clinical environment.

Furthermore, the ward atmosphere directly influences student learning because it determines the students' perception of whether the clinical environment is suitable for learning. The attitude, approach and neutrality of the registered nurse create trust among the students. However, lack of harmony, communication, and a good interpersonal relationship between the registered nurse and the nursing student negatively affect the student psychologically (Chuan et al., 2012). Furthermore, Lamb et al. (2018) revealed that nursing students experienced emotions of stress and anxiety when they were unsupported during clinical attachment. Additionally, registered nurses have high expectations of the nursing students which many students did not believe they could meet, and this added to the stress they experienced (Onuoha et al., 2016). Similarly, the findings by Bryan et al. (2014), as cited in Lawal et al. (2015), identified anxiety as an influential factor in learning in the clinical area. Thus, the anxiety experienced at the initial stage of clinical allocation may be caused by adapting to a new ward or unit, having to learn the culture of the unit and having to care for real patients. Moreover, high levels of anxiety during the initial clinical experience associated with the fear of making mistakes and of unapproachable clinical staff have been reported in other settings. Therefore, identifying problems and challenges faced by students in the clinical environment can help reduce negative emotional reactions and contribute to a positive learning experience.

2.6.3 Theory-practice gap

"Theory-practice gap refers to a discrepancy between what is taught in the classroom setting and what is practised in a clinical setting" (Hatupopi & Nuuyoma, 2019, p21). The theory concentrates on the ideal for patient care, whilst the practice focusses on the reality of nursing work (Hatupopi et al., 2019; Saifan et al., 2015). Nursing education is an integrated combination of theoretical and practical learning experiences which aims to provide nursing students with the knowledge, skills and attitudes required for future practice as a professional nurse (Nabolsi et al., 2012). Clinical nursing education is a vital component of the baccalaureate nursing curricula, during which registered nurses facilitate students' application of classroom theoretical knowledge into the clinical practice setting (McKenna & Wellard, 2009), as cited in Nabolsi et al. (2012). It is considered to be a complex process which consists of the integration of cognitive, affective and psychomotor skills enabling students to integrate theoretical learning and skills required to solve patients' problems, think critically and intervene creatively and professionally (Lopez, 2003), as cited in Nabolsi et al. (2012).

Clinical nursing education constitutes the core of nursing education while theory is complementary to practice (Jonsen, Melender & Hilli, 2013). It provides students with real-life events that enable them to develop, apply and evaluate their own understanding of concepts being studied (Saifan et al., 2015). Thus, the theory is about building a knowledge base of disease processes, signs and symptoms and interventions, while clinical nursing education focusses on skills more than knowledge. Students have to be competent and skilled while working in the clinical learning environment. Yet, some students had difficulty connecting the theory to the practice due to their personalities and uniqueness. Moreover, Mbakaya, Kalembo, Zgambo, Konyani, Lungu, Tveit, Kaasen, Simango and Bvumbwe (2020) discovered that student nurses had difficulty in integrating theory into practice because of a lack of resources as well as registered nurses who were not following protocols when performing procedures which helped students to achieve clinical competencies. This may be attributed to a heavy workload which caused registered nurses to take shortcuts during procedures in the clinical learning environment (Mbakaya et al., 2020).

Saifan et al. (2015) are of the opinion that theoretical information provides nursing students with the opportunity to build a range of powerful examples gained from experience, even though the literature indicates that there is a lack of integration between what is taught in the classroom and

what the nursing students experience in the clinical area (McKenna & Wellard, 2014; Saifan et al., 2015). This gap was viewed as a normal phenomenon by some authors. For example, Steele (1991), as cited in Saifan et al. (2015), explained that what is taught in the classroom can never truly resemble the real event and full comprehension of nursing principles does not ensure their application to practice. Nabolsi et al. (2012) argued that the clinical environment is complicated and continuously changing, so even very effective theoretical input in the classroom can never cater for the complexities of the clinical situation. Not all students will have the same opportunity and experiences in the clinical environment, resulting in some students being better equipped than others to integrate theory with practice (Saifan et al., 2015). For example, there are some departments in the clinical learning environment that have a greater workload than others and would thus not be conducive to learning, while other departments where routine work prevails would not encourage student' initiative and creativity.

A study by Kaphagawani and Useh (2013) on students' learning experiences in practice revealed that there is a theory-practice gap between what has been learned in the classroom setting and what is practised in the clinical environment. Students revealed that they received instructions totally different from what they were taught in the classroom. Hence, the gap between theory and practice creates conflict and influences the students' clinical learning negatively. This phenomenon was described as a "gap between 'what is taught' and 'what is practised' in nursing", where the theory concentrates on the ideal for patient care, whilst the clinical nursing education focusses on the reality of nursing work (Saifan et al., 2015). Other evidence from literature suggests that there is a gap in integrating theory into practice which has been a source of concern for a long time in nursing education. According to Sharif and Masuomi (2005), in Iran, Elcigil and Sari (2007) in Turkey and Saifan et al. (2012) in Jordan, as cited in Kaphagawani et al. (2013), students reported disparities between what was learned in the classroom and simulation laboratory and the actual practice in a clinical environment. Conflict between the ideal and the reality results in students being confused, stressed and anxious, which indicates that students are not learning effectively to prepare them for the work they would have to do after qualifying. This is supported by a study conducted in Ghana by Adjei et al. (2018) on the experiences of baccalaureate nursing students regarding intra-semester clinical practicum that revealed a huge gap between what students learnt in class and what was being practised in the hospitals. In addition, students recognised that registered nurses' incompetence in teaching them and lack of a supporting milieu were dominant

factors contributing to problems such as insufficient orientation in the unit, misunderstanding of the training programme and students' needs and requests not being considered (Khoza, 2015).

According to Saifan et al. (2015), linking theoretical information with practice was one of the challenges that faced the students as many of them complained that they did not know exactly how to use theoretical information in their clinical training. More interestingly, some of them thought that theoretical education and practice belonged in different worlds. The challenge of integrating theory with practice in nursing education is not surprising as it was clearly indicated in the literature (Nabolsi et al., 2012). Lecturers and registered nurses should prepare the students to differentiate between the controlled environment of theory and the complex social context found in the practical environment. The importance of supporting nursing students in the clinical area is critical for clinical learning. According to Ravik and Bjork (2021), when theoretical gaps are closed, nursing students will have a theoretical understanding of the skill that could provide them with better opportunities to engage in reflection and discussions during skill learning. However, if theory and practice are not integrated, this can cause difficulties because the principles of practice established in curricula are not well aligned with the principles operating in the workplace (Ajani & Moez, 2011). Moreover, failing to support nursing students in the clinical area may produce feelings of dissatisfaction and frustration. As stated by Salifu et al. (2019), the factors that contribute to the theory-practice gap include inadequacies such as resource restrictions, lack of experience, poor workplace conditions and a lack of coordination between the clinical learning environment and educational institutions. Saifan et al. (2015) revealed that some students did not receive good support from registered nurses during their clinical training and stated their disappointment in the way the registered nurses communicated with them. The study further found that there was a need to improve the registered nurses' competence in carrying out their teaching responsibilities by making them pass special communication skills courses and by increasing their clinical competencies.

2.6.4 Workload of registered nurses

Workload is the amount of performance required to carry out activities in a specified time period (Neill, 2011). As already discussed in 2.4.2 and 2.4.6 above, workload in the clinical learning environment influences the quality of clinical nursing education provided by registered nurses who

have the responsibility of teaching nursing students. According to Chuan et al. (2012), students reported a variety of learning opportunities which facilitated their learning but these were compromised if there was an increased workload (Kaphagawani et al., 2013). This finding concurs with a study done by Papp et al. (2003), as cited in Emanuel et al. (2013), that identified issues such as staff shortages, lack of registered nurses, increased workload, nurses feeling threatened by nursing students and poor teaching skills that made students feel unsupported in the learning process. Chuan et al. (2012) shared the view that the heavy workload and attitudes of staff compromised the clinical education of nursing students. The study was further supported by another study conducted in Ghana by Adjei et al. (2018) in which some students reported that they were not supported by the registered nurses during clinical attachment because of heavy ward duties.

Consistent with these findings, Lapena-Monux, Cibanal-Juan, Marcos and Macia-Soler (2014) found that registered nurses were not providing clinical nursing education to nursing students due to heavy workloads. Other literature cites different reasons for a lack of support for students in the clinical setting including registered nurses' perception that facilitation of clinical education was extra work for them, and the unavailability of staff (Lekalakala-Mokgele et al. (2015). The study by Khademi, Mohammadi and Vanaki (2015) identified the main factors that increase the workload of nurses such as unsatisfactory facilities and too many tasks that nurses have to perform. Furthermore, it also indicated that there was a deficiency of workers, financial and equipment resources, facilities, knowledge and required skills for executing the tasks. Nurses had to carry out other non-care tasks as well as satisfy the needs and expectations of patients and families. The study further revealed that insufficient resources such as staff, facilities, equipment and supplies to carry out activities in the working environment also increased nursing workload. The same study discovered that a lack of preparedness and low educational levels apparent in insufficient knowledge and competence also contributed to the workload of nurses.

2.6.5 Competence of registered nurses

Competence refers to the ability of an individual to do tasks to a defined standard (Tuomikoski, Ruotsalainen, Mikkonen & Kaariainen, 2020). It includes components and attributes of a person such as satisfactory knowledge, skills, performance, attitudes and values that result in the ability

to be effective and superior in their performance (Scanlon, 2017; Tuomikoski et al., 2020). Registered nurses play a vital role in enhancing the quality of clinical learning of nursing students and therefore need to be competent in clinical skills and teaching. According to Nazari et al. (2015), a competent registered nurse has an active clinical role, pays attention to patients, has clinical experience and proficiency and is capable of providing learning opportunities for nursing students using the available facilities. Bvumbwe et al. (2015) felt that nurses working in teaching hospitals should be clinically competent in order to impart appropriate skills to students. Findings revealed that not only were skill competencies lacking among nurses but so also were their teaching skills. The study further revealed that some nurses might be knowledgeable about clinical skills and procedures but did not know how to handle students. Knowledge of handling students in the clinical area is critical in creating a conducive learning environment (Bvumbwe et al., 2015). From the students' point of view, registered nurses should be competent and knowledgeable in the clinical area, which they regarded as the most important component of teaching (Ali, 2012).

According to Kaphagawani et al., (2013) students felt that the role of clinical nursing education was not fulfilled because registered nurses paid more attention to evaluating than teaching, which was mostly done by nurses who lacked teaching experience and might not know the needs of the students. Suplee et al. (2014) found that registered nurses did not have a good understanding of the nature of clinical nursing education. The same study further revealed that educational preparation and professional development impacted on registered nurses' effectiveness in their facilitation role. Consequently, the lack of specific training in clinical nursing education, limit the personal and professional knowledge of registered nurses and as such limit their knowledge and experiences from which they have to draw experiences on.

Studies done by Oprescu, McAllister, Jones and Duncan (2017) and Suplee et al. (2014) discovered that registered nurses felt torn between the role of clinician and educator. The study further indicated that registered nurses lacked confidence in their teaching skills and they were not up to date with contemporary clinical teaching strategies. A study conducted by Karuhije (1986), as cited in Vitale (2017), on the extent to which graduate programmes prepared registered nurses for clinical teaching responsibilities, revealed that the majority (70%) of the respondents felt that their graduate programme did not adequately prepare them to be effective clinical teachers. Similar results were reported by Yang and Chao (2018) who found that registered nurses felt unprepared

for the teaching role and suggested that orientation, guidance and support were needed in this regard. Various studies indicated the need for in-service training and continuous professional development programmes to build the capacity of registered nurses (Bvumbwe et al., 2015; Davidson & Rourke, 2012).

2.7 CLINICAL LEARNING ENVIRONMENT

This review points out the aspects of the clinical learning environment that affect facilitation of clinical nursing education. The clinical learning environment is a complex social entity that influences student learning outcomes in the clinical setting. It refers to any place where students interact with technology, lecturers, nurses, patients, guardians and other members of the health care system for the purposes of acquiring appropriate clinical learning experiences (Jamshidi et al., 2016). It provides an authentic context for student nurses to develop the knowledge, skills, attitudes and values necessary for the nursing profession. The clinical learning environment provides opportunities for students to learn and transform theory into practice. Since nursing is a performance-based profession, clinical environments play an important role in the acquisition of professional abilities and training of nursing students to enter the nursing profession and become registered nurses (Jamshidi et al., 2016). The clinical context of healthcare education is crucial for students to engage with and learn about health care provision (Bradshaw et al., 2018). It is an area in which nursing students are able to study, experience and develop nursing competencies in relation to different diseases and patient situations under the supervision of registered nurses. In the clinical environment, registered nurses provide clinical education to nursing students in order to prepare them to become competent practitioners who will be able to provide quality healthcare and promote the health of people. Apart from learning the necessary skills, students are also able to experience the real world of nursing in addition to learning the responsibilities of being a nurse and developing interpersonal relationships with others.

The findings of a study conducted in Ghana by Adjei et al. (2018) revealed that some registered nurses treated students as messengers instead of learners. It was widely reported that nursing students were used for errands and were further tasked to do menial jobs instead of providing nursing care. Onuoha et al. (2016) indicated that this conflict of interests contributed to the failure of nursing students to meet their clinical objectives. These findings were not peculiar to Ghana

but were also present in other countries. This obviously has implications for nursing skill acquisition since the students were not encouraged to take on challenging tasks to develop their professional skills. Students should be assigned to specific tasks as soon as they report to the hospital or health facility and these tasks should be evaluated at the end of the allocation by a registered nurse, preceptor or clinical instructor in order to determine whether learning took place (Adjei et al., 2018). Elcigil and Sari (2007), as cited in Kaphagawani et al. (2013), stated that clinical performance increased if students were given the necessary support in the clinical environment.

Onuoha et al. (2016) are of the opinion that a clinical learning environment rich in learning opportunities but lacking in support discouraged students from seeking experiences and resulted in a loss of learning and growth opportunities. Overcrowded clinical learning environments by a large number of students in certain departments also hampered effective clinical education. Unfamiliarity with the wards and procedures was another factor that influenced students' clinical learning negatively. Several authors observed that it was important that students fitted in and were accepted as part of the team during clinical attachment, because a welcoming environment encouraged active participation and provided learning opportunities (Lekalakala-Mokgele et al., 2015). Therefore, registered nurses need to be available, friendly and willing to teach students in order to build a supportive climate for learning. The importance of a supportive clinical environment has been recognised and is well documented in the literature. Studies show that support structures in clinical environments, including the role of registered nurses and lecturers during clinical education, are of great importance in effective student learning (Kristofferzon et al., 2013).

According to a study conducted by Nabolsi et al. (2012) on the experiences of Jordanian nursing students in their clinical practice revealed that students concurred that the effectiveness of their clinical experiences and education was strongly influenced by the clinical environment and registered nurses. The clinical environment was most influential in the development of nursing skills and knowledge, while registered nurses had the responsibility of facilitating the socialisation of students into the profession. Most students emphasised the registered nurses' responsibility for shaping the learning environment to provide opportunities for students to achieve their learning objectives. Students expressed that they were able to learn best in a climate that encouraged

collaborative learning, trust and mutual respect with good communication and relationships. Moreover, students also explained that the enthusiasm and motivation of registered nurses in teaching and patient care positively influenced their clinical learning experiences. Conversely, some students explained that they were unable to practise certain skills in various clinical settings due either to a lack of resources or to the policies of those settings. However, all students agreed that clinical experiences varied according to clinical attachment and that competencies were best mastered through hands-on training.

2.8 SUMMARY

This chapter focused on the historical background of clinical nursing education and on reviewing the literature concerning its best practices, the experiences of registered nurses, lecturers and student nurses and the clinical environment in which it takes place. The chapter also discussed the theories that were applied in this study. Chapter Three will describe the methodology used in the study.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter outlines the design and methodology that guided the process of inquiry and implementation of the study. The study was carried out in two phases, incorporating both qualitative and quantitative methods to collect and analyse the data. The description of the methods is discussed separately in this chapter. Issues of reliability, validity, trustworthiness and ethical principles are also presented in this chapter.

3.2 APPROACH FOR THE STUDY

A research approach refers to the "plans and procedures for the research that encompasses the steps from broad assumptions to detailed methods of data collection, analysis and interpretation" (Grover, 2015, p1). Various approaches may be used in research: qualitative, quantitative and mixed methods. In this study, a mixed method approach was used to collect and analyse the data as illustrated in Figure 3.1. A mixed research method refers to the combination of quantitative and qualitative designs in a study and was helpful in this study as it neutralised the weaknesses of each method (Creswell, 2014). Since using one approach only could be insufficient to explain the complexity of the phenomena (Maree, 2012), the two approaches complemented each other. Therefore, a convergent parallel mixed method was used.

3.3 DESIGN FOR THE STUDY

"A research design refers to the overall strategy that one chooses to address the problem which requires integration of different components of the study in a coherent, logical and efficient way" (Grover, 2015, p1). It constitutes the blueprint for data collection, analysis of data, interpretation and reporting of conclusions (Grove & Gray, 2019; Grover, 2015, p1). In this study, a convergent, parallel, mixed-method design was adopted. This is a design in which the researcher uses concurrent timing to implement the quantitative and qualitative strands during the same phase of the research process, prioritises the methods equally, keeps components independent during analysis and mixes the results during the researcher's overall interpretation of the data (Creswell & Clark, 2018). In this study, the researcher collected both qualitative and quantitative data

concurrently, prioritised the methods equally, kept data analysis independent, merged the results and then interpreted them, as illustrated in Figure 3.1. By converging or merging qualitative and quantitative data, the convergent, parallel, method design provides a comprehensive analysis of the research problem.

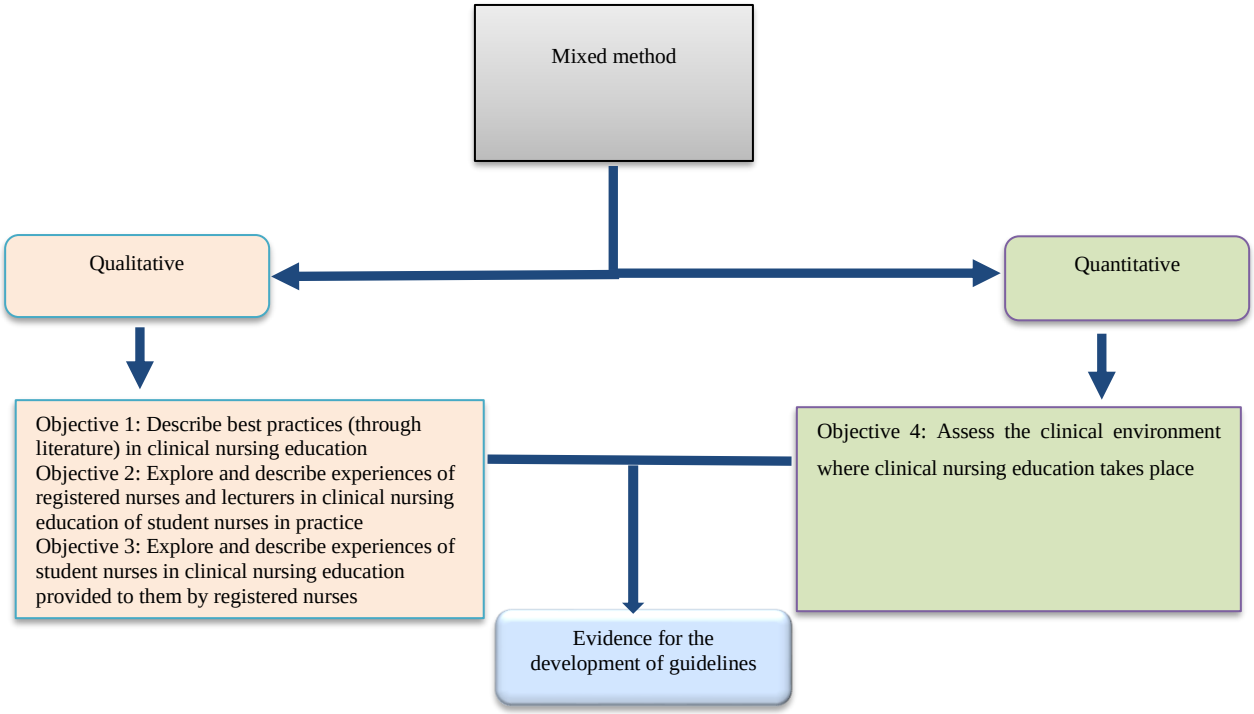

Figure 0.1 Schematic diagram of converged parallel mixed method design.

According to Venkatesh, Brown and Sullivan (2016), the mixed-method approach provides more comprehensive answers to the research question, thus going beyond the limitations of a single approach. It also enables researchers to simultaneously address confirmatory and explanatory research questions and therefore to evaluate and generate theory at the same time. Furthermore, it enables researchers to provide stronger inferences than a single method or worldview and provides an opportunity for researchers to produce a range of divergent and complementary views (Kaushik et al., 2019). In this study, the design further assisted in making amendments, decisions and suggestions on the facilitation of clinical nursing education for undergraduate nursing students. Thus, adopting the guidelines during clinical nursing education, the registered nurses would be equipped with the right competencies and approaches to teach, guide and support student nurses during clinical attachment. In addition, registered nurses would acquire the necessary skills and develop confidence in being able to facilitate clinical nursing education.

3.4 REASONING STRATEGIES

Reasoning is a process of thinking about something in a rational manner in order to draw conclusions (Grove et al., 2019). It is a daily activity that people use to make decisions and involves the construction and conversion of thoughts into a proposition to give reasons why they opted for a particular alternative over another. Reasoning can take the form of inductive and deductive reasoning.

3.4.1 Inductive reasoning

Inductive reasoning alludes to a logical process in which the researcher makes an argument from a specific standpoint to the general one (Grove et al., 2019). In this process, multiple propositions are believed to provide strong evidence for the truth of the conclusion. Inductive reasoning moves from the specific to the general. "The aim of inductive reasoning is to establish limited generalisation about the distribution and patterns of association amongst observed or measured characteristics of individuals and social phenomena" (Malhotra, 2017, p172). It is used to develop an understanding of how something works on the basis of observing regularities. Inductive reasoning follows a particular flow or behaviour so as to make inferences, using the 'bottom-up' approach to solve problems. In other words, it starts with single or particular statements and ends up with general or universal propositions. Inductive reasoning considers particular events to make the generalisation. However, it is possible that the conclusions drawn from inductive reasoning could be false, even if all the specific events on which it is based are true.

Inductive reasoning was applied during Phase 1 of the present study, in the situational analysis that explored and described the experiences of registered nurses, lecturers and student nurses concerning clinical nursing education as well as the clinical environment where clinical nursing education took place. It was also applied during Phase 2 in the development of the conceptual framework that was used to develop guidelines for registered nurses to facilitate clinical education, following the collection of data. The conclusions drawn from the data were used for conceptualisation using literature control. Inductive reasoning was also used during the discussion of the research findings.

3.4.2 Deductive reasoning

Deductive reasoning is the opposite of inductive reasoning. It is a form of logic in which specific inferences are drawn from multiple premises: in other words, it uses general statements as the basis for arriving at a particular conclusion (Grove et al., 2019). Deductive reasoning is the opposite of inductive reasoning in that the researcher starts the argument from the general to the specific (Polit et al., 2018). Deductive reasoning is also referred to as a 'top down' approach (Gray et al., 2019) as it moves from a general statement to a conclusion that is singular (Malhotra, 2017). It is based on the fundamental laws of reasoning and implies the direct application of available information or facts to come up with new information or facts. In this process, the researcher takes into account a theory and generates a hypothesis which can be tested after the observations are recorded. Particular data confirm validity. It demonstrates the relationship between the proposition and conclusion. When all the proposed statements are true, the rules of deduction are applied and the result obtained is inevitably true. It builds on previous knowledge and research and is available in situations where a researcher has clearly identified the construction of concepts as a point of departure.

In this study, the researcher used deductive reasoning in Phase 3, during the development of guidelines to facilitate clinical nursing education. In addition, deductive reasoning was used to describe the best practices in clinical nursing education through the literature review that supported the findings.

3.4.3 Synthesis

"Synthesis is the process of grouping and connecting ideas from various sources to form a completely new description of what is known or not known in an area" (Walker & Avant, 2019, p113). In this study, the researcher synthesised the data collected during Phase 1 to develop a conceptual framework that served as a basis for the development of guidelines to facilitate clinical nursing education.

3.4.4 Inferences

An inference is a process in research in which a conclusion is drawn from the study evidence, taking into account the methods used to generate such evidence (Polit et al., 2018). In this study, inferences were drawn from the experiences shared by participants during focus group discussions and interviews that revealed challenges affecting facilitation of clinical nursing education. These inferences enabled the interpretation and conclusions of the experiences and challenges to be revolved integrated into the guidelines to facilitate clinical nursing education of nursing students.

3.4.5 Bracketing

"Bracketing is the process of putting aside what is known about a study topic to allow the data to convey undistorted information" (Brink et al., p195). Bracketing enables the researcher to clarify how his/her own experiences and beliefs could influence what is heard and reported (Polit et al., 2018). According to Grove et al. (2019, p65), "the researchers must bracket or set aside their own biases and preconceptions to describe the phenomenon in a naïve way". In this study the researcher withheld her own preconceptions and beliefs about clinical nursing education during the process of data collection, analysis and conceptualisation.

3.5 PHASE 1: SITUATIONAL ANALYSIS

Phase 1 dealt with the needs assessment and it covered the first three objectives of the study.

3.5.1 Objective 1: Describe best practices in clinical nursing education

"Best practice is a conscientious, explicit and judicious use of best current evidence in making decisions" (Jylha, Oikarainen, Perala & Holopainen, 2017, p6). Best practices in clinical nursing education are important because they inform the best available evidence. This section discusses the methodology adopted in order to achieve the objective. This methodology includes the design embraced to achieve the objective, population, sample and sampling method, instrument for data collection, procedure for data collection and data analysis.

3.5.1.1 Design

A narrative literature review design was used in order to meet the objective. A narrative literature review summarises what has been previously published, avoid duplication and seeking new study areas that are not yet addressed (Ferrari, 2015). Narrative review was chosen because it gives researchers insights into the phenomenon being investigated (Komolthiti, 2016). In this study, narratives regarding best practices in clinical nursing education were collected through a narrative literature review in order to gain insight into the phenomenon under investigation.

3.5.1.2 Eligibility criteria

Eligibility criteria are specifications of characteristics of whom a research protocol might be applicable (Weng, Tu, Sim & Richesson, 2010). In this study, the eligible and ineligible papers are indicated below.

Eligible papers

- Peer-reviewed articles, policies and guidelines published from 2010 were consulted.
- Articles written in English language

Ineligible papers

- Articles published before 2010
- Articles not written in English language

3.5.1.3 Review question

The review endeovored to answer the following research question:

- What are the best practices in clinical nursing education of nursing students?

3.5.1.4 Data bases used

A search was carried out in health-related electronic databases namely, Google Scholar, ResearchGate, ScienceDirect, PubMed, Scopus, SpringerLink, HINARI and other general journals

for information related to best practices in clinical nursing education. In this study the researcher also used manual search in library to identify relevant books.

3.5.1.5 Search terms

The search terms “practice guidelines” OR best practices to facilitate clinical AND “education” OR “educational status” of “students nursing” were used to identify the available literatures in order to answer the research questions.

3.5.1.6 Type of evidences

The studies that consisted of evidences that contributed to best practices in clinical nursing education were populated. The type of evidences searched included the authors, date of publications, country and whether the study was qualitative, quantitative or mixed methods and identified best practice in clinical nursing education.

3.5.1.7 Search strategy

Literature search was done on various data bases to identify and describe relevant literature on best practices in clinical nursing education of nursing students in practice. The researcher used the search terms to identify the available literatures in order to answer the research question. The search terms used were “practice guidelines” OR best practices to facilitate clinical AND “education” OR “educational status” of “students nursing” to generate evidence in clinical nursing education. The extraction of articles considered the eligibility criteria. The data search was done according to the phases as stipulated by Gregory and Denniss (2018). The first phase involved definition of the topic and audience. The researcher selected the topic which was relevant to the contemporary best practices in clinical nursing education of student nurses. This was done in order to ensure that there were enough data in the literature to meet and support the needs of the current study. The second phase was to search and re-search the literature to ensure the identification of the most relevant literature in clinical nursing education. The researcher searched for various pieces of literature that were relevant and more recent than 10 years old. The third phase involves being critical when reading the selected literature. The researcher analysed the literatures, providing discussion, identifying any knowledge gaps, and making notes as she was doing so. The fourth phase involved finding and adopting a logical structure for the narrative review. The

structure of the review consisted of the introduction, body and summary. The researcher applied standard academic writing techniques in order to enhance clarity and avoid ambiguity. Table 3.1 presents the phases of search strategy and the application to the study.

Table 3.1 *: Phases and application of search strategy*

Phases of narrative data collection	*Application to the study*
1. Define topic and audience	The researcher defined the topic and audience for review. The research topic in this study was defined as the best practices in clinical nursing education of nursing students. The researcher also refined the topic and audience for review as best practices in clinical teaching of nursing students in order to generate more data.
2. Search and re-search the literature	The researcher searched various databases such as Google Scholar, ResearchGate, ScienceDirect, PubMed, Scopus, SpringerLink, HINARI and other general journals for information related to best practices in clinical nursing education. The search words used were search terms "practice guidelines" OR best practices to facilitate clinical AND "education" OR "educational status" of "students nursing."
3. Be critical when reading selected literature	After searching for the relevant data, the researcher read and analysed the literature in order to make sense of it and provide a critical discussion thereof. At the same time, the researcher made notes and recorded her thoughts, references and citations as she read the literature.
4. Find a logical structure for the review	The structure of this study included the introduction, body and summary of the review. The introduction presents the reader with what is contained in the literature review. The body of this review was divided into themes and sub-themes that emerged as a result of literature review. The summary encapsulated the key messages of the review.

3.5.1.8 Data extraction

Data extraction is important because it make it possible to identify relevant research (Schmidt, Olorisade, McGuinness, Tomas & Higging, 2020). In this study, the researcher read each article carefully in order to determine whether it is relevant to best practices in clinical nursing education. The researcher read the results, interpretation of results and discussion of the findings. Thereafter, a summary of major findings of each study was made as it relates to the research question. In this study, a table was created and used as a data extraction instrument to extract and populate supporting studies that contributed to best practices in clinical nursing education. The table consisted of the following information: author(s), year of publication, country of origin, type of evidence and identified best practice in clinical nursing education.

3.5.1.9 Analysis of evidence

Analysis of evidence is critical as it allows a better understanding of the results and facilitates a meaningful discussion and conclusion (Ferrari, 2015). In this study, each article was analysed for key results, quality of findings and interpretation of results. Articles with the best contributions in clinical nursing education were analysed.

3.5.2 Objective 2: Experiences of registered nurses and lecturers in clinical nursing education

This section describes the methods used to explore and describe the experiences of registered nurses and lecturers in clinical nursing education. These include the design embraced to carry out the objective, population, sample and sampling method, instrument for data collection, procedure for data collection, data analysis and measures to ensure trustworthiness.

3.5.2.1 Design

"Research design refers to the overall strategy that one chooses to attach the problem which requires integration of different components of the study in a coherent and logical way, thereby ensuring to solve the problem in efficient way" (Grover, 2015, p1). A qualitative, exploratory and descriptive design was used to explore and describe the experiences of registered nurses in the facilitation of clinical education of student nurses during clinical attachment. The researcher's goal was to explore, analyse and describe clinical education in real life situations. The richness

and depth of the description of the data obtained from the qualitative approach provide the unique reality of their experiences.

Qualitative research highlights the dynamic, holistic and individual aspects of human experience and attempts to capture those experiences in their entirety, within the context of those experiencing them (Polit et al., 2018). The researcher followed a qualitative research process in order to explore the experiences of registered nurses in clinical education provided to student nurses during clinical attachment in order to gain more insight on how it is experienced in the real-life situation. Through this approach, the researcher engaged and interacted with registered nurses through focus group discussions and data were generated on their experiences concerning clinical education.

Exploratory design is defined as a research conducted to gain new insights, discover new knowledge and increase knowledge of phenomena (Grove et al., 2019). The researcher explored the experiences of registered nurses in the training health facilities of Oshana and Oshikoto regions, Namibia.

Descriptive design refers to the accurate portrayal of particular individuals in real-life situations for the purpose of discovering new meaning (Grove et al., 2019). Descriptive designs involve direct exploration, analysis and description of a particular phenomenon and are used to document phenomena of interest in real life. The experiences of registered nurses concerning clinical education were described in order to obtain an understanding of how clinical education is facilitated in practice, with the ultimate goal of improving it.

3.5.2.2 Population

Population is defined as the aggregate or totality of those individuals conforming to a set of specifications (Polit et al., 2018). The study population in this study consisted of registered nurses working in departments where nursing students were clinically attached for exposure. The population for registered nurses is outlined in Table 3.2.

Table 3.2: *Population and sample*

Health facilities			Registered nurses		
	Population	Sample		Population	Sample
Hospital	2	2	Oshakati	209	139
			Onandjokwe	46	33
Health center	5	5	Ongwediva	5	5
			Ou-Nick	5	3
			Okatana	5	0
			Ondangwa	6	5
			Oshakati Health Centre	14	8
Clinic	1	1	Eluwa	2	2

As illustrated in table 3.2, the population included registered nurses from the training health facilities in Oshana region, namely Oshakati Hospital, Oshakati Health Centre (n=209), Ongwediva Health Centre (n=5), Ou-Nick Health Centre (n=5), Okatana Health Centre (n=5), Ondangwa Health Centre (n=6) and Eluwa Clinic (n=2). It also included registered nurses from a training health facility in Oshikoto region, Onandjokwe Hospital (n=46). The total population was two hundred and ninety-two (n= 292).

Furthermore, the population consisted of the lecturers from the University of Namibia, Oshakati campus, who were lecturing nursing students. They were included in the study because of their involvement in clinical nursing education of student nurses. The study population consisted of UNAM lecturers from the School of Nursing, Oshakati campus and numbered eighteen (n= 18) in total.

Inclusion criteria for registered nurses:

- Registered nurses whose probation has been confirmed, working in departments where student nurses were allocated.
- Registered nurses working in the training health facilities of Oshana and Oshikoto regions, Namibia

Exclusion criteria for registered nurses:

- Registered nurses whose probation had not been confirmed.
- Registered nurses working in departments where students were not allocated.
- Registered nurses working in health facilities not situated in Oshana and Oshikoto regions, Namibia.

Inclusion criteria for lecturers were:

- Lecturers from the University of Namibia in the School of Nursing, Oshakati campus.
- Lecturers involved in the clinical nursing education of nursing students.

Exclusion criteria:

- Lecturers who were not from the School of Nursing, UNAM, Oshakati campus.
- Lecturers who were not involved in clinical nursing education of nursing students.

3.5.2.3 Sampling method and sample

"Sampling refers to the process of selecting a portion of the population to represent the entire population", while a sample refers to "a subset of a population comprising those selected to participate in a study" (Polit et al., 2018, p417). A purposive sampling method was used to select the sample. The sample size five (5) focus group discussions comprising of forty-three (n=43) registered nurses. The sample size was determined by data saturation. Moreover, lecturers, were selected using a non-probability purposive sampling method. The sample size was (n=5) as determined by data saturation. The reason for choosing the sample was to represent the total population and provide rich and valuable information on how the registered nurses experience facilitation of clinical nursing education based on their direct involvement.

3.5.2.4 Data collection instrument for registered nurses

In the spirit of improving the quality of research findings it is expedient that data are collected using the right instrument (Adosi, 2020, p2). According to Hamilton and Finley (2020), qualitative researchers have a number of data collection instruments to select depending on the purpose of the study and ability of the researcher to use them effectively. In this study, a focus group guide was used to collect data from participants. A focus group guide is a tool to guide the qualitative data collection process that consists of all questions a researcher planned to ask the participants (Dzino-Silajdzic, 2018). According to Guest, Namey, Taylor, Eley and McKenna (2017), a focus group

guide contains questions that guide researchers when they gather people from similar backgrounds or experiences to discuss a specific topic of interest. The focus group guide used in this study consisted of one open-ended question as follows:

What are your experiences concerning the clinical nursing education that you provide to nursing students?

Probing questions were asked based on the responses from participants. This method of data collection was chosen because the researcher had an interest in a specific topic on which she wanted to focus and gain information. The data were collected during May and June 2019.

3.5.2.5 Data collection instrument for lecturers

A semi-structured interview guide was used for lecturers to facilitate the process of discussions. "An interview guide is a list containing a set of questions that have been prepared to serve as a guide for the researcher in collecting data about a specific topic" (Adosi, 2020, p4). It guides a face-to-face conversation between a researcher and participants with the sole purpose of collecting relevant information to satisfy a research purpose. Furthermore, the interview "guide ensures that the main points of interest are addressed during the interview process while allowing the overall direction to be shaped by the participants' own understanding" (O'Keeffe, Buytaert, Mijic, Brozovic & Sinha, 2016, p1912). The semi-structured interview guide was used to provide participants with the opportunity to fully describe their experiences concerning facilitation of clinical nursing education. This instrument of data collection was chosen to allow the participants to share their own stories in their own words in order to yield rich data on the topic under investigation.

3.5.2.6 Procedure of data collection

For registered nurses

The data collection procedure is a successive order of activities that are undertaken to obtain data which is structured according to the research design and study methods (Tolley, Ullin, Mack, Robinson & Succop, 2016). The data were collected through focus group discussions with registered nurses and individual interviews with lecturers. Focus group discussion is a qualitative

data collection method that engages 6 (six) to 12 (twelve) people with shared characteristics pertinent to the specific discussion topic and is led by a trained facilitator (Nyumba, Wilson, Derrik & Mukherjee, 2018). Polit et al. (2018, p404) define focus group discussion as "an interview with a small group of individuals assembled to answer questions on a certain topic". The study used a focus group guide (see ANNEXURE K) to facilitate the discussions. This focus method was appropriate to obtain information because it lends itself to the exploration of the views people hold about a specific issue, in this case clinical education. In this study, five (5) focus group discussions were held, which included 6 (six) to 11 (eleven) registered nurses. Two (2) sessions took place at Intermediate Hospital Oshakati, one (1) session at Oshakati Health Centre, one (1) session at Ondangwa Health Centre and one (1) at Onandjokwe Hospital. The focus group discussions took place in convenient venues at Intermediate Hospital Oshakati, Oshakati Health Centre, Ondangwa Health Centre and Onandjokwe Hospital.

The venues where FGDs were held were convenient for registered nurses because they are located within the hospital and health centre premises. The venues were conducive for conducting the FGDs and audio recordings because there were no disturbances and they provided privacy, adequate space, light and ventilation.

The booking of participants to take part in the focus group discussions were done verbally, followed with cellphone calls to serve as reminders as the date for the discussions were approaching. One day before the FGDs were to take place, cellphone calls confirming the date, time and venue were made. On the actual day of the focus group discussions, cellphone calls were again made early in the morning, to serve as reminders, as well as to confirm the time and venue.

The FGDs were conducted on the date agreed upon by all participants and the researcher. The researcher explained the nature and purpose of the study to the participants. Thereafter, the researcher obtained written informed consent from each participant prior to the commencement of the discussions. Participants were informed about voluntary participation in the study as well as their right to withdraw at any time during the research process. All five groups responded to the same question. The discussion question focused on clinical education provided to student nurses during clinical attachment. English was the language used because it is the official language and medium of instruction and all participants were able to understand and express themselves in

English. One participant was allowed to talk at a time. The discussions were audio recorded and field notes were taken throughout the process.

For Lecturers

The booking for individual interviews with lecturers were done verbally, approximately three weeks before the actual day of the interview. Thereafter, cellphone calls were made to serve as reminders as the dates for the interview approached. On the day of the interviews, the researcher went through the informed consent with the participant in order to obtain informed consent. The interviews were conducted in a boardroom at the training institution. The researcher ensured that the venue was conducive, that there was no noise and cellphones were switched off. Semi-structured interviews were conducted with lecturers responsible for clinical nursing education of nursing students. Semi-structured interviews contain a core set of questions around a topic, but allow the researcher to ask supplementary questions or change the order in which questions are asked (O'Keeffe et al., 2016). This method provided participants with an opportunity to discuss their life experiences concerning facilitation of clinical nursing education. Before the commencement of the interview process, participants were informed about the purpose of the interview. Thereafter, they were given consent forms to sign in order to provide informed written consent. The same procedures were followed as in the previous interviews The interview guide (see ANNEXURE I) facilitated the process of interviews and consisted of one open-ended question as follows:

What are your experiences concerning the clinical nursing education of nursing students?

Each participant was asked and responded to the same main question. The opening question elicited information on the experiences of the lecturers concerning clinical education. The interviews progressed based on participants' responses. Probing questions were asked where clarity was needed. During the in-depth interviews, the researcher conducted face-to-face private interviews with each participant, employing communication skills such as reflection, nodding, questioning, clarifications and maintaining eye contact. The interviews were audio-recorded and field notes were taken on non-verbal communications in order to enrich the text. All the interviews were in English as it is the medium of instruction at the University of Namibia. The researcher collected the data during the month of June 2019.

3.5.2.7 Data analysis

Data analysis is a hands-on process during which the researcher becomes immersed in the data (Brink et al., 2018). Data analysis in qualitative research proceeds hand-in-hand with data collection and write-up of findings. Qualitative data analysis is a process that requires chronological steps to be followed. It consists of organising and preparing the data and includes transcription, data reduction into themes and sub-themes by means of coding and condensing the data before they are presented for discussion (Creswell & Creswell, 2018). "The characteristic of qualitative data analysis is a systematic process of coding, examining and providing a description of the social reality through the creation of themes" (Vaismoradi, Jones, Turunen & Snelgrove, 2016, p100). "Themes are the main products of data analysis that yield practical results in the field of study" (Vaismoradi et al., 2016, p101). A theme captures significant data about the research question and presents a patterned response or meaning within the dataset (Braun et al., 2012). For the purposes of this study, the researcher used the Tesch's steps of qualitative data analysis according to Botma et al. (2010), as described in Table 3.3, to analyse the data.

Table 3.3: *Tesch's steps of data analysis and its application to the study*

Tesch's steps of data analysis	Application to the study
1. Make sense of the whole.	The researcher read and re-read the transcripts carefully in order to make sense of the information and reflect on its meaning. The researcher also jotted down any ideas that came to mind in the margin.
2. Select the shortest and most interesting interview and read through it and ask yourself "What is this about?" in order to identify the underlying meaning.	The researcher looked for data that were relevant and related in order to identify the original meaning.
3. Make a list of those topics and put together similar topics in columns as major, unique and leftovers.	The researcher continued to read through each transcript, classified topics and wrote them in the margin as major, unique and leftover topics.
4. Take the list and go back to the data and abbreviate the topics as codes and write the codes next to the appropriate segment.	After classifying the topics, the researcher went back and reduced the topics into codes which were written next to the appropriate segment.
5. Find the most descriptive wording for the topics and turn them into categories. Find ways to reduce the topics by grouping the topics that are related to each other.	The researcher looked at the topics that had clustered together for consistency. This was done through the coding process in order to generate the descriptions. The emerged topics were grouped into themes and sub-themes. The list of the themes and sub-themes was reduced by grouping the related themes and sub-themes together and writing them in columns.
6. Make a final decision on the abbreviation for each category and alphabetise these codes.	The researcher created a final column for the themes and sub-themes.
7. Gather the data that belong to each category in one place and do a preliminary analysis.	The data that belonged to the same theme were brought together and a preliminary analysis was done.
8. Re-code the data if need be.	The researcher re-coded the data where there was a need.

In this study, the researcher listened to the audio recordings and the data was transcribed verbatim. The data were coded in order to get a sense of the whole. The researcher continued to read through all transcripts and grouped similar topics together in order to reduce the topics into codes. Through the coding process, the topics were clustered in order to generate the descriptions. Thereafter, the themes and sub-themes emerged, as indicated in Chapter 4.

3.5.2.8 Trustworthiness

Trustworthiness is defined as the extent of confidence that the researcher has created due to the objectivity and truthfulness with which the conclusions were generated (Holloway, 2013). According to Grove et al. (2015), trustworthiness is an approach used to ensure the scientific strength of qualitative research. To ensure the trustworthiness of the findings, Lincolt and Cuba's (1985) criteria of credibility, transferability, dependability and conformability, as cited in Lemon and Hayes (2020), were applied.

"Credibility refers to the accuracy with which the researcher interprets the data that were provided by the participants" (du Plooy-Cilliers et al., 2014, p258). It seeks to ensure that the study measures or tests what is actually intended. According to Lemon et al. (2020, p605) "credibility is rooted in the truth value which is derived from the participant's lived experiences, which does not necessarily lead to universal truth, but rather to an in-depth understanding of that person's unique reality". In this study, credibility was ensured through frequent debriefing sessions between the researcher and her supervisors. Through discussions, the vision of the researcher was widened as the research supervisors brought their experiences and perceptions to the study. Such collaborative sessions were also used by the researcher to discuss alternative approaches. Credibility was also ensured through provision of a thick description of the phenomenon under study. This helps to convey the actual situations that have been investigated and to some extent, the context that surrounds them. Member checking was also utilised whereby the researcher provided feedback to participants about evolving interpretations in order to obtain participants' reactions (Polit et al., 2018). The researcher debriefed the participants after the FGDs and interviews to highlight the key points from the discussions that afforded them the opportunity to agree or disagree with them.

"Transferability refers to whether or not particular findings can be transferred to another similar context or situation, while maintaining the meanings and inferences from the completed study" (Houghton, Casey, Shaw & Murphy, 2013, p13). It is therefore concerned with the extent to which the findings of a study can be applied to other situations. In this study, the researcher provided sufficient descriptive data in the research report for consumers to evaluate the applicability of the data to another context. The researcher provided thick description necessary to enable readers in making a transfer to reach a decision about whether the transfer could be considered as a possibility (Jooste, 2018). Data saturation was also employed as a method of ensuring trustworthiness. Data saturation occurs when newly collected data begins to be the same as what has already been collected (Grove et al., 2019). In this study, data saturation was determined when the data obtained from FGDs and interviews were not providing new information.

"Dependability refers to the quality of the process of integration that takes place between the data collection method, data analysis and the theory generated from the data" (du Plooy-Cilliers et al., 2016, p259). In this study, dependability was maintained through member checking whereby the entire transcript was read by two expert researchers and each member constructed independent summaries of the discussion and reached consensus on the final version.

Confirmability refers to the need to remain as objective as possible throughout the study (Creswell & Poth, 2018). This criterion is concerned with ensuring that the data represent the information participants provided and that the interpretations of those data are not made up by the researcher. "The findings must reflect the participants' voices and the conditions of the inquiry and not the researcher's biases" (Polit et al., 2018, p296). Confirmability was demonstrated by being aware of personal prejudices and putting them aside during data collection and interpretation. The researcher also achieved confirmability by using verbatim quotes from participants that revealed their reflections rather than those of the researcher. Furthermore, confirmability was also demonstrated by having the transcriptions and audio-recorder given to an auditor to check the data's trustworthiness.

3.5.3 Objective 3: Experiences of student nurses in clinical nursing education

This part of the study considered how the experiences of student nurses of clinical nursing education were carried out in order to achieve the objective. The methodology used comprises the

design, population, sample and sampling method, instrument for data collection, procedure for data collection, data analysis and measures to ensure trustworthiness.

3.5.3.1 Design

A descriptive exploratory design was used in the qualitative phase of the study. An exploratory design is conducted to gain insight into phenomena that are new or about which there is a lack of information. The researcher aimed to explore and describe the experiences of nursing students on clinical education provided to them by registered nurses in order to gain new insights, discover new ideas and increase knowledge of how it is facilitated in practice.

3.5.3.2 Population

"A population is the entire group of persons or objects that is of interest to the researcher, and which meets the criteria they are interested in studying" (Brink et al., 2018, p116). The population for this study was the third- and fourth-year nursing students pursuing a Bachelor of Nursing Science (Clinical) (Honours)' degree at the UNAM, Oshakati campus. These students were chosen because at these levels of study, the students have covered most of the study disciplines for the four-year training programme and are therefore able to reflect on their experiences during clinical nursing education throughout the clinical exposure and learning. The population size was one hundred and eighty-seven (n=187).

Inclusion criteria:

- The participant had to be registered for a four-year Bachelor of Nursing Science (Clinical) (Honours) Degree at the University of Namibia.
- The participant had to be a third- or fourth-year nursing student.

Exclusion criteria:

- First- and second-year nursing students from UNAM, Oshakati campus were excluded.
- Nursing students from other campuses and Universities were excluded.
- Students from other schools and faculties were also excluded.

3.5.3.3 Sampling method and sample

A purposive sampling method was used to select the sample. A sample is defined as "a subset of the population that is selected to represent the population" (Brink et al., 2018, p203). In this study, the sample size was twenty-eight (n=28) participants. The sample size was determined by data saturation. The nursing students were found to be the best source of rich information regarding their experiences of clinical nursing education received from registered nurses during clinical attachment. The participants were selected based on their particular involvement in clinical nursing education for the purpose of sharing their experiences and knowledge with the researcher.

3.5.3.4. Instrument for data collection

A focus group guide served as the research instrument of data collection and aided to direct the discussions. This method can be used when "a researcher wants to collect narrative data from a group of individuals" (Adosi, 2020, p2). It provides flexibility because the researcher is not compelled to follow the list of questions strictly. In this study the focus group guide (see ANNEXURE J) consisted of open-ended questions; for example, what are your experiences regarding the clinical nursing education that nursing students receive from registered nurses?

3.5.3.5 Procedure for data collection

In this study, a focus group discussion was used as a method of data collection. According to (de Vos, Strydom, Fouche and Delport, (2011, p 361), "focus group discussion is a carefully planned discussion designated to obtain perceptions on a defined area of interests in a permissive, non-threatening environment". This method of data collection was chosen because the researcher had an interest in a specific topic on which she wanted to focus and obtain information from participants (Grove et al., 2019). The recruitment of participants was done before the data collection process. The focus group discussions took place in one of the classrooms at the University of Namibia, Oshakati campus. The venue was convenient for student nurses because it is located within the campus premises where students attended classes. The chosen venue was conducive for discussions and recordings because it was quiet, private and comfortable with enough space, light and ventilation. The participants were first informed that the purpose of the discussion was to obtain information about the clinical education that student nurses received from registered nurses during clinical attachment. The participants were given the informed consent

forms to complete prior to the commencement of the discussion, in order to obtain their informed consent.

The researcher clarified the rules of the discussion as follows:

- The discussion will be audio-recorded.
- All participants should feel free to express their views or opinions without any intimidation or fear.
- One person will be allowed to talk at a time in order to get the opinion of each participant.
- The participation in the study is voluntary and participants can withdraw any time they wish without punishment.
- No one is forced to answer any question they do not wish to answer.
- There is no right or wrong answer.
- Cell phones must be on silent.

A focus group guide directed the sessions and all three (3) groups responded to the same questions. The focus group questions focused on clinical nursing education that nursing students received from registered nurses during clinical allocations. Probing questions were asked depending on the responses from participants. English was the language used during the discussion because it is the medium of instruction at the University of Namibia and it also serves as the official language in the Republic of Namibia. In order to obtain detailed and meaningful data, field notes were taken during the sessions. There were no interruptions experienced during the discussions**.** The researcher collected the data during June 2019.

3.5.3.6 Data analysis

The data from the focus group discussions were analysed thematically. The analysis commenced at the onset of the data collection process and proceeded even after the data collection period had ended. In qualitative studies, data analysis commences simultaneously with data collection because the search for themes and concepts begins immediately the data collection commences (Polit et al., 2018). The thematic analysis followed the Tesch steps by Botma et al. (2010) as below:

- The researcher listened to the audio recordings and read and re-read all the transcriptions. The data were coded and transcribed verbatim. This was done to get a sense of the data as a whole and some ideas were jotted down as they emerged.
- One transcription of the focus group discussion was picked at a time and re-read. The underlying meaning of the data was sought and was written down. Topics which represented positive experiences were written in a black colour and those that represented negative experiences were written in red. This was done with all transcriptions.
- A list of topics was made and similar topics were grouped together. Thereafter columns were drawn to form major topics, unique topics and leftovers.
- The compiled list was used to compare the data and topics were abbreviated as codes. These codes were written next to the segments of the text, while the researcher checked if new categories and codes were emerging. These codes were colour-coded.
- The most descriptive codes for the topics were assigned and turned into themes. Topics that were related to each other were grouped in order to reduce the list of categories.
- Themes and sub-themes were developed using the coding process in order to generate a description of the themes and sub-themes. This was done manually with the assistance of a computer and included a detailed discussion of several themes and sub-themes. The findings were presented in a narrative form and the meanings interpreted.

3.5.3.7 Trustworthiness

The researcher adopted the following four criteria to ensure trustworthiness of the data**,** namely credibility, dependability, transferability and confirmability as follows:

"Credibility refers to the value and believability of the findings and involves conducting the research in a believable manner and being able to demonstrate credibility" (Houghton et al., 2013, p13). According to Polit et al. (2012), credibility involves conducting the study in a way that enhances confidence in the truth of the data and related interpretations. To ensure credibility the researcher observed, adopted and followed the process of qualitative research, methods of inquiry and data analysis. During data collection, the researcher established relationships with the participants to build trust and elicit the right information from their personal perspectives. All participants were taken through the same question and the data were audio-recorded in order to

capture them all. Thereafter, verbatim transcription of the data was done in order to capture the meanings. Field notes taken during focus group discussions and transcriptions were given to an independent member to ensure accuracy of the data.

"Dependability of qualitative data refers to the stability of data over time and over conditions" (Polit et al., 2018, p296). It entails the ability to replicate the study with the same or similar participants in the same or similar context and still have similar results (Polit et al., 2018). In this study, dependability was ensured by using an audit trail in which all the focus group interview materials, voice recordings, transcriptions, documents, findings, interpretations and recommendations were kept and any other material relevant to the study was made available and accessible to the main research supervisor and co-supervisor for the purposes of conducting an audit trial. This was done to make sure that all data collected were properly secured, and the process could be trusted for the best outcome. In order to address the issue of dependability more directly, the processes within this study were reported on in detail, thereby enabling a future researcher to repeat the work without problems, even if the same results were not necessarily gained.

"Transferability refers to the extent to which the qualitative findings can be transferred to other settings or groups" (Polit et al., 2018, p296). Transferability can be achieved through thick description and data saturation (Polit et al., 2012). In this study, the researcher provided sufficient thick description of the research context by providing thick description of the background, problem statement, aims and objectives and the research methodology. This was done in order to allow readers to have a proper understanding of it, thereby enabling them to compare the instances of the phenomenon described in their research report with those that they have observed in their situations. In this case the study relied on the experiences of the student nurses concerning clinical nursing education.

"Confirmability refers to the neutrality and accuracy of the data" (Houghton et al., 2013, p13). It requires the freedom of the researcher from bias in the research procedure and results. The aim is to ensure that all the findings are from the participants and not from the researcher (Polit et al., 2012). In this study, verbatim transcriptions were done by the researcher and auditing of the recorded data was done by an independent member. Reflections of supporting quotes from the

individual participants were present in the presentation and discussion of findings. In order to reduce bias and maintain the true value of the research, field notes were taken and the focus group discussions were audio-recorded. The data would be locked up for a maximum of five years as retrieval of the data for verification may be required at any time by the relevant authorities.

3.5.3 Objective 4: Clinical environment where clinical education takes place

Objective 4 covers the quantitative part of the study. "Quantitative research is a formal, objective, rigorous and systematic process for generating numerical information about the world" (Grove et al., 2019, p30). In order to achieve this objective, the clinical learning environment was assessed to determine whether it was conducive for facilitating clinical nursing education. Thus, the design, population, sample and sampling method, instrument for data collection, procedure for data collection, data analysis and validity and reliability were described.

3.5.4.1 Design

A "design is a blueprint for the conduct of a study that maximises control over factors that could interfere with the study's desired outcome" (Grove et al., 2019, p43). In this study, a descriptive design was used in the quantitative phase of the study. According to de Vos et al. (2011), a descriptive design may be used in both qualitative and quantitative research approaches. "In a quantitative study, the researcher perceives the world as being outside themselves and that an objective reality, independent of any observation, exists" (Rovai et al., 2014) as cited in Almalki, (2016, p290). The research design in a quantitative study spells out the strategies the researcher plans to adopt to develop information that is accurate and interpretable (Grove et al., 2019). In this study, the researcher described the clinical environment in which clinical nursing education took place in terms of ward atmosphere, theory to practice integration, learning opportunities, knowledge and practices of registered nurses and interpersonal relationship.

3.5.4.2 Population

The target populations were registered nurses from the training health facilities of Oshana and Oshikoto regions as well as student nurses from the UNAM. The total population was two hundred and ninety-two (n=292) registered nurses (See Table 3.1) and one hundred and eight (n=187) nursing students.

Inclusion criteria were:

- Registered nurses in the training health facilities of Oshana and Oshikoto regions working in departments where student nurses are allocated.
- Third- and fourth-year nursing students from the UNAM, Oshakati Campus.

Exclusion criteria were:

- Registered nurses in departments where nursing students are not being allocated
- Registered nurses from other training health facilities in other regions.
- First- and second-year nursing students.
- UNAM nursing students from other campuses.
- UNAM students pursuing other courses.

3.5.4.3 Sampling method and sample

A simple random sampling method was used to select the sample from the population for both groups of respondents. Simple random sampling is a probability sampling involving the selection of a sample from a sampling frame for inclusion in the study (Grove et al., 2019). The sample size was one hundred and seventy-two (n=172) registered nurses and one hundred and eight (n=108) nursing students.

3.5.4.4 Data collection instrument for nursing students

In this study, a structured questionnaire was used to obtain data from nursing students to assess whether the clinical environment was conducive for clinical learning. A "questionnaire is a data collection tool with a predetermined set of questions used for the collection and recording of information about a particular issue of interest from respondents" (Bolarinwa, 2021, p196). Part 1 consisted of Questionnaire 1 that was used to obtain data from nursing students. Section A1 dealt with demographic data of respondents and health facility characteristics, while Section B1 concentrated on conduciveness of the clinical environment. In addition, Section C1 looked at the integration of theory and practice whereas Section D1 focused on opportunities for learning.

Section E1 focusses on registered nurses' knowledge and practices while Section F1 concentrated on interpersonal relationships (see ANNEXURE G).

A self-rating scale was used to rate student nurses' clinical practices. There were eight (8) questions on student practices. A five-point Likert scale was used for each question resulting in a minimum score of 8 and a maximum score of 40. One point on the Likert scale denoted "strongly disagree", two points "disagree", three points "neither agreed nor disagreed", four points "agreed" and five points "strongly agreed". The clinical practices scores were grouped into two categories, namely, bad and good. Respondents with the scores ranging from 8-24 were rated as having bad practices whilst respondents with scores from 25-40 were rated as having good ones.

There were six (6) questions on interpersonal relationships between nursing students and registered nurses with the minimum score of 6 and the maximum 30. The interpersonal relationships were categorised into two groups: poor and good. Respondents with the scores ranging from 6-18 were rated as having poor interpersonal relationships while respondents with scores from 19-30 were rated as having good ones. Data were then summarised and described using descriptive statistics such percentages and frequencies which were displayed in the form of tables and figures. Cross tabulation was then done to determine the association between socio-demographic characteristics, clinical practices and interpersonal relationships.

3.5.4.5 Data collection instrument for registered nurses

Part 2 consisted of Questionnaire for registered nurses. In this Questionnaire, Section A2 focused on the demographic information of registered nurses, the characteristics of health facilities and the training background of participants. Section B2 focused on students' practices during clinical attachment whereas Section C2 concentrated on interpersonal relationships between nursing students and registered nurses (see ANNEXURE H).

3.5.4.6 Procedure of data collection for nursing students

The data were collected from nursing students using self-administered, structured questionnaires. Before the commencement of the data collection process, the researcher scheduled appointments with the respondents. The data was obtained while respondents were on theoretical block at the training institution. Before distribution of the questionnaire to the respondents, the researcher

explained the purpose and objectives of the study. The respondents were informed of the nature of the study and the voluntary nature of their participation and reassured them that they were free to withdraw at any time during the research process without punishment. Thereafter, the questionnaires were distributed only to consenting eligible respondents after a full explanation of the purpose and benefits of the study. The respondents were given a consent form to provide informed consent before embarking on completing the questionnaire. Subsequently, the researcher allowed the respondents to complete the questionnaires in their own time. The researcher collected the completed questionnaires on the date agreed upon with the respondents. The data were collected by the researcher during June and July 2019.

3.5.4.7 Procedure of data collection for registered nurses

A self-administered, structured questionnaire was used to obtain data from respondents. Appointments were made with the respondents before the data collection. On the agreed data with the respondents, the researcher went to the specific health facilities to distribute the questionnaires. The researcher explained the aim and objectives of the study. The respondents were assured of anonymity, confidentiality and voluntary participation in the study. Respondents were informed of their right to withdraw from the study at any time of the research process without any penalty. Subsequently, the researcher handed out the questionnaires to the respondents who have agreed to take part in the study and have meet the inclusion criteria. The respondents were given a consent form to provide informed consent to participate in the study. The researcher and individual respondents agreed on a date when the completed questionnaires will be collected. The researcher collected the completed questionnaires on the date agreed upon with the respondents. The data were collected by the researcher during June and July 2019.

3.5.4.8 Data analysis

The main purpose of quantitative research statistical analysis is to provide a measurement of variables of the study and determine their association or relationship (Polit et al., 2018). The "choice of analysis techniques depends on the research objective, research question, research design and type of data collected" (Fain, 2017; Grove et al., 2019, p45). Descriptive statistics were used in this study to analyse the data. An expert in quantitative methods assisted in processing these data using descriptive statistics. The first step undertaken was cleaning the data for accuracy

in order to avoid errors, omissions and consistency. The data were analysed using the Statistical Package of Social Sciences (SPSS) version 25.0 software, in order to obtain a picture of the data set. The researcher analysed whether the clinical environment was conducive for learning or not according to the opinions of the respondents. Frequencies of descriptive variables and percentages related to the data were summarised in order to describe the data. The information was presented descriptively by frequencies and percentages and enhanced by tables and figures. Furthermore, a Chi-square test was employed to determine the association between variables. P-values less than 0.05 were considered significant.

3.5.4.9 Validity and reliability

Validity and reliability are the two criteria that determine the quality of the research instrument and were followed in this study.

3.5.4.9.1 Validity

"Validity refers to whether the measuring instrument measures the behaviour or quality it is intended to measure or how well the measuring instrument performs its function" (Surucu & Maslakci, 2020, p2696). An instrument is deemed valid if it measures what it is expected to measure (Pandey & Pandey, 2015). In order to determine the validity of the research instrument, different types of validity were utilised. In this study, various measures were implemented to achieve internal, face, content, external validity and construct validity. According to Angell (2015), knowing if the data collection tool is valid enables researchers to make sure they measure the construct they intended to measure.

Internal validity

Internal validity refers to the degree to which the findings of the study are a true reflection of the reality rather than the result of extraneous variables (de Vos et al., 2011). It "indicates whether the results of the study are legitimate and whether the study can be replicated" (Mohajan, 2017, p14). In this study, internal validity was ensured by randomly selecting the participants for the study from the study population. In addition, the questionnaires (see ANNEXURES G and H) were developed by the researcher, validated through reviewing the literature and evaluated by the research supervisors and statistician for any conceptual and investigative bias. Furthermore, the

study was collected as planned and only completed questionnaires were analysed. The researcher did not interfere with the results of the study.

Content validity

"Content validity is defined as a qualitative form of validity that evaluates whether the expressions contained in the measuring instrument represent the phenomenon intended to be measured" (Surucu et al., 2020, p2697). Heale and Twycross (2015) state that content validity determines whether the instrument sufficiently includes all the content that it should address with respect to the variables. In this study, the researcher presented the questionnaires to the research supervisors for evaluation and their inputs were incorporated.

Construct validity

"Construct validity is concerned with the degree to which the instrument measures the concept, behaviour, idea or quality that it purports to measure" (Surucu et al., 2020, p2700). It is based on the logical relationship between variables. In this study, the constructs are defined the theoretical framework guiding the study. The framework guiding the study is obtained from in-depth literature. The researcher linked the components of theoretical framework to the study objectives and the questionnaire. Table 3.4 presents construct validity showing the alignment of the objectives, theoretical framework and research instruments

Table 3.4 Construct validity

Objective		Component of the conceptual framework	Quantitative research instrument
Student nurses' participants			
Assess the clinical environment where clinical nursing education takes place	Clinical environment	Agent, Context	AI & B1
	Integration of theory and practice	Procedure & Dynamic	A1 & C1
	Opportunities for learning	Procedure, Dynamic & Context	D1
	Registered nurses' knowledge and practices	Recipient	E1
	Interpersonal relationship	Agent, dynamic	FI
Registered nurses' participants			
Assess the clinical environment where clinical nursing education takes place	Students practices during clinical attachment	Recipient	A2 & B2
	Interpersonal relationship	Agent, dynamic	C2

3.5.4.9.2 Reliability

Reliability refers to the degree of consistency or accuracy obtained by the use of a measurement tool, or the dependability with which a measurement instrument measures an attribute (Polit et al., 2012). "It is the extent to which a questionnaire produces the same results on repeated trials" (Bolarinwa, 2021, p198). Reliability of the research instrument was ensured by conducting a pilot study of the research instruments to test if it would produce reliable results. A reliable measure can give the same result each time the variable is measured (Grove et al, 2019). Moreover, a Cronbach's alpha test for each category of items was employed. Cronbach alpha "provides a measure of internal consistency of a test or scale" (Tavakol & Dennick, 2011, p53). "Internal consistency describes the extent to which all the items in a test measure the same concept or construct" (Tavakol et al., 2011, p53). A Cronbach coefficient of 0.7 and above was considered. In this study, the research instruments were checked and refined repeatedly to establish reliability. A Cronbach alpha test for the two instruments was carried out, and a reliability coefficient of the study was 0.704 for registered nurses and 0.809 for nursing students respectively (see ANNEXURE R). Thus, the result implies acceptable reliability of the questionnare instruments and internal consistency of the five-point Likert-scale.

Pilot study

A pilot study is "a small-scale study, or trial run, done in preparation for a major study in order to assess its feasibility" (Polit et al., 2018, p412). In this study, the pilot study was conducted at Oshikuku Hospital in Omusati region and at UNAM, Oshakati campus. The main reason for the pilot study was to determine whether there was any ambiguity in the research instrument and whether the questions were clearly understood by the participants in order to eliminate confusing aspects that could affect data collection. The participants who took part in the pilot study were excluded from the main study. Prior to conducting the pilot study, permission was obtained from the Omusati Regional Health Director and APVC of UNAM, Oshakati campus to conduct the study. Participants were purposively selected for the qualitative part while for the quantitative part a simple random sampling method was used. The proposed research instruments for the main study were used to determine its feasibility and identify any limitations.

For the qualitative part of the study, one FGD with registered nurses, one FGD with nursing students and two individual interviews with lecturers were conducted and field notes were taken. The research questions were piloted for relevance and appropriateness. The pilot study demonstrated that the questions were clear and understandable.

In the quantitative part of the study, a simple random sampling method was used to select ten (10) participants. The outcome of the pilot study revealed that it was unilateral since it only aimed at registered nurses to assess the clinical environment. It was suggested that the researcher should construct another questionnaire for the student nurses to evaluate the clinical environment in order to get their opinions as well. A questionnaire for student nurses was constructed (see ANNEXURE G) and was piloted by ten second-year student nurses. After the pilot study, the research instruments were adjusted accordingly.

3.5.5 Merging of the findings to generate evidence

Merging is a mixing strategy in which qualitative and quantitative results are brought together through a combined analysis (Creswell et al., 2018). For the purposes of this study, the researcher used a joint display of data methods to merge the findings. This approach involves merging the two forms of data in a table or graph (Creswell et al., 2018). The idea is to jointly display both forms of data and effectively merge them in a single visual and then make an interpretation of the display. In this study, the data that were merged were the best practices in clinical nursing education, experiences of registered nurses, experiences of lecturers and experiences of student nurses concerning clinical nursing education. The data on the clinical environment in which clinical nursing education takes place were also merged. In this study, this evidence is important because it contributes to the development of guidelines for registered nurses to facilitate clinical nursing education. The merging of findings is illustrated in Figure 3.2.

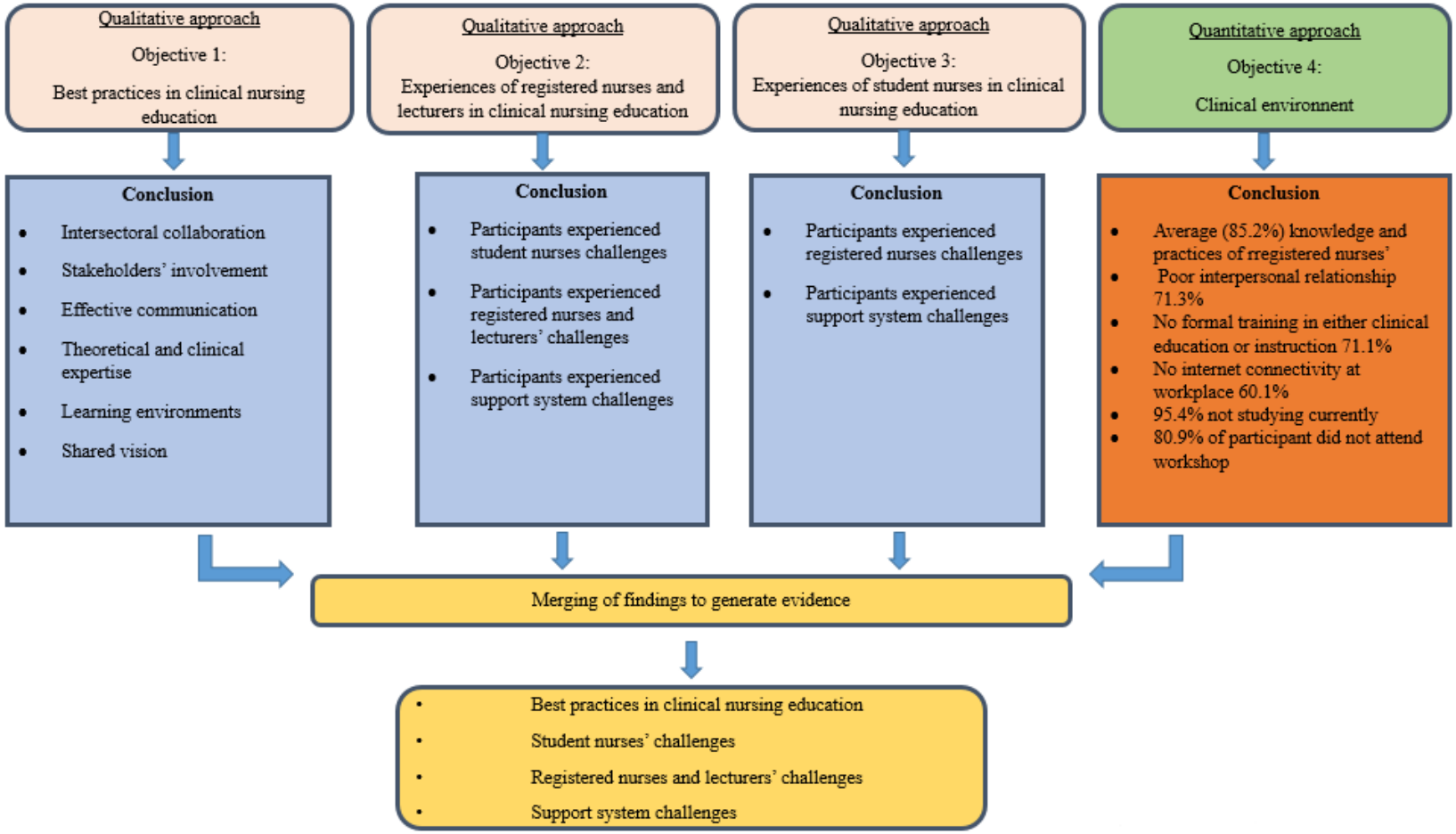

Figure 0.1 Diagrammatic sketch on merging of data.

3.6 PHASE 2: DEVELOPMENT OF A CONCEPTUAL FRAMEWORK

The conceptual framework was developed after data collection and analysis. The conceptual framework formed the basis for the development of the guidelines for registered nurses to facilitate clinical education of student nurses in the training health facilities of Oshana and Oshikoto regions. The Practice Oriented Theory by Dickoff et al. (1968) was used to serve as the basis for this study. The survey list of components as proposed by Dickoff et al. (1968) was used to create the reasoning map. The components are agents, recipients, context, dynamics, procedure and terminus. This is explained in detail in Chapters 1, 3 and 5.

3.7 PHASE 3: DEVELOPMENT OF GUIDELINES TO FACILITATE THE CLINICAL NURSING EDUCATION OF STUDENT NURSES

The guidelines were developed on the basis of the challenges identified during situational analysis and concepts resulting from the conceptual framework as proposed by the Practice Oriented Theory by Dickoff et al. (1968). Data obtained from participants through interviews, focus group discussions and questionnaires provided the basis for the development of the guidelines. The ADDIE model (Molenda, 2015) and MoHSS (2017) framework for the development of guidelines were embraced in the development of the guidelines. The ADDIE model comprises five phases: analysis, design, development, implementation and evaluation. The analysis phase comprised the situational analysis which was carried out during the study to generate evidence. After the evidence was generated, the researcher designed the objectives and the content of the guidelines. The development of the guidelines was based on information obtained from the situational analysis in Phase 1. Guidelines development entails the situation, current status, aim of guidelines, specific objectives and key activities as adopted from MoHSS (2017) framework guidelines development. The guidelines development is described in Chapter 6.

3.8 ETHICAL CONSIDERATIONS

“Ethics is a branch of philosophy that deals with the conduct of people and guides the norms or standards of behaviour of people and relationships with each other” (Akaranga & Makau, 2016, p1). “Ethics refers to an “ethos” or “way of life”, and “social norms for conduct the distinguishes between acceptable and unacceptable behaviour" (Akaranga & Ongong’a, 2013, p8; Shah, 2011, p205). When conducting a research study, it is important to safeguard human subjects by applying correct ethical principles (Arifin, 2018). To uphold the ethical considerations in this study, the researcher considered the following ethical principles:

3.8.1 Permission to conduct the study

In this study, the researcher observed the ethical principles during the research process. Permission was sought and granted from the University of Namibia Ethics Committee (UREC) (see ANNEXURE B) to conduct the study. Permission was also granted by the Assistant Pro-Vice-Chancellor (APVC) of the UNAM, Oshakati Campus (see ANNEXURE F) to utilise the lecturers and nursing students as participants in the study. Permission was obtained from the Permanent Secretary of the MoHSS to conduct the study (see ANNEXURE C) in the public hospitals, health centres and clinics and to utilise registered nurses as participants in the study. Permission was also obtained from the gatekeepers to conduct the study. Other ethical principles applied in this study were based on the Helsinki Declaration (Shrestha & Dunn, 2020) and are described below:

3.8.2 Principle of justice

Justice implies the right of participants to be treated fairly and equally through sharing every benefit and risk of the study with them and informing the participants of their right to withhold private issues (Polit et al., 2018). In this study, participants were treated with fairness and equity during all stages of the research process. They were selected on the basis of the subject matter under study and according to the inclusion criteria.

3.8.3 Principle of autonomy and respect for human dignity

Participants are autonomous human beings with rights that need to be protected (Brink et al., 2018). They have the right to decide whether to participate in the study or not without being penalised. In this study, participants were informed about their right to refuse to take part in the study or to withdraw from the study at any time without any risk of being penalised. Respect for the dignity of persons was maintained through voluntary informed consent from all participants and respect of participants as human beings. Informed written consent was obtained from registered nurses, lecturers and nursing students to voluntarily take part in the study after the importance of the research study to the nursing profession and the society at large was thoroughly explained.

Anonymity was maintained throughout the research process. The identity of the participants was not provided or required on the questionnaires; thus, only code numbers, not names, were used. Recorded data from the in-depth interviews and focus group discussions were assigned code numbers.

Confidentiality is one of the ethical principles that need to be adhered to during the research process. According to Brink et al. (2018, p196), confidentiality is a process whereby "the identity of the research participants is known only to the study investigator". Confidentiality confirms participants' right to assume their personal information will be kept confidential (Grove et al., 2019). In this study, confidentiality was maintained at all times as no unauthorised person(s) had access to the collected data. The completed questionnaires were locked up in a cupboard which was accessible to only the researcher. The interviews and focus group discussions were conducted in private venues where each participant was free to participate. Information obtained was not shared with any person outside the research team. Computers with information related to the study had protected passwords and only the researcher had access to the information. The data were locked up in a cupboard. Audio recordings and all information related to the study were destroyed after completion of the research study.

3.8.4 Principles of beneficence and non-maleficence

"The principle of beneficence obliges the researcher to attempt to maximise the benefits that the research affords to the participants in the research study" (Blanche et al., 2014, p67). In this study,

participants were informed that there were no direct personal benefits, but the findings of the study would serve to provide collective benefit to the nursing profession. Although there were no direct benefits to the participants in this study, the developed guidelines would serve as a guiding tool for registered nurses to facilitate clinical education. In addition, it is hoped that the study will empower registered nurses by equipping them with knowledge, skills and appropriate attitudes towards facilitation of clinical nursing education.

The principle of non-maleficence implies doing good and doing no harm (Grove et al., 2019). Non-maleficence requires the researcher to ensure that no harm befalls participants as a direct or indirect consequence of the research. In this study, the researcher adhered to this principle by preventing discomfort and any harm to the participants. Potential harm was minimised by using convenient venues during focus group discussions and interviews where each participant felt free to participate and give her/his opinion without fear or intimidation. The researcher avoided questions that could be judgmental throughout the research process. Furthermore, confidentiality was observed and the participants' privacy was respected.

3.9 SUMMARY

This chapter discussed the approach and design of the study. The reasoning strategies that were utilised were also described. The phases of the study were outlined, namely: Phase 1 (the situational analysis); Phase 2 (the development of a conceptual framework); and Phase 3 (the development and proposed implementation and evaluation of the guidelines). Ethical aspects were also described. The next chapter deals with presentation and discussion of the research findings.

CHAPTER FOUR

PRESENTATION OF QUALITATIVE AND QUANTITATIVE RESULTS

4.1 INTRODUCTION

This chapter presents the results based on the first objective of the study. The objective consists of four sub-objectives of which the first three represent the qualitative part of the study, while the fourth represents the quantitative part of the study. The narrative literature review aims to explore the best practices in clinical nursing education while the qualitative part aims to explore the experiences of registered nurses and lecturers on clinical nursing education, and the experiences of student nurses in clinical nursing education. The quantitative part aimed to assess the environment where clinical education takes place.

4.2 DATA COLLECTION AND ANALYSIS FROM LITERATURE REVIEW

The data was collected from review of literature of sources on best practices in clinical nursing education. The following best practices in clinical nursing education were identified, namely, intersectoral collaboration, stakeholders' involvement, communication, clinical learning environment, qualities of a facilitator and shared vision. described in chapter 2. Table 4.1 presents the identified articles used in identifying and describing best practices in clinical nursing education. A total number of seventy-seven (76) articles and three (4) guidelines were identified

Table 4.1: Identified articles

Number of articles	Author(s) and year	Country	Type of evidence	Identified best practices
1.	Abu Salah et al, 2018	Palestine	Descriptive quantitative cross-sectional design	Clinical learning environment
2.	Adjei et al., 2018	Ghana	Qualitative	Clinical learning environment
3.	Alamri et al., 2019	Saudi Arabia	Qualitative	Qualities of a facilitator
4.	Ali, 2017	Scotland	Qualitative	Communication
5.	Arkan et al., 2018	Turkey	Qualitative	Clinical learning environment

6.	Bazrafkan et al., 2018	Iran	Qualitative	Stakeholder involvement
7.	Belita et al., 2020	Canada	Review of literature	Stakeholder involvement
8.	Bourgeous et al., 2011	Australia	Qualitative	Qualities of a facilitator
9.	Bradshaw et al., 2018	Ireland	Qualitative	Clinical learning environment
10.	Bryan et al., 2013	Jamaica	Quantitative	Qualities of a facilitator
11.	Bvumbwe, 2016	Malawi	Integrative review	Intersectoral collaboration, Stakeholder involvement, shared vision
12.	Bvumbwe et al., 2018	Malawi	Qualitative	Intersectoral collaboration
13.	Carbogim et al., 2016	Brazil	Concept analysis	Qualities of a facilitator
14.	Dalrymple et al., 2017	USA	Case study	Stakeholder involvement
15.	D'Antonio et al., 2013	Philadelphia	Qualitative	Stakeholder involvement
16.	Darcy Associates, 2016	Australia	Mixed method	Intersectoral collaboration, clinical learning environment
17.	Desrosiers, 2017	Britain	Qualitative	Qualities of a facilitator
18.	Drasiku et al., 2021	Uganda	Qualitative	Stakeholder involvement
19.	El Banan et al., 2017	Egypt	Quantitative	Qualities of a facilitator
20.	Elfaki, 2019	Saudi Arabia	Systematic review	Shared vision
21.	El Said et al., 2018	Egypt	Quantitative	Qualities of a facilitator
22.	Emanuel et al., 2013	England	Qualitative	Clinical learning environment
23.	Fukada, 2020	Japan	Literature review	Stakeholder involvement
24.	Goosby et al., 2014	USA		Intersectoral collaboration
25.	Haider et al., 2020	Pakistan	Qualitative	Qualities of a facilitator
26.	Hatem et al., 2011	Cambridge	Quantitative	Qualities of a facilitator
27.	Hayajneh, 2011	Jordan	Critical incident technic	Qualities of a facilitator
28.	Jack et al., 2017	United Kingdom	Qualitative	Qualities of a facilitator
29.	Johnson, 2015	California	Literature review	Qualities of a facilitator
30.	Joolae et al., 2016	Iran	Qualitative	Qualities of a facilitator
31.	Kalyani et al., 2019	Iran	Qualitative	Clinical learning environment
32.	Kamolo et al., 2017	Kenya	Critical review	Qualities of a facilitator
33.	Kamphinda et al., 2019	Malawi	Mixed method	Clinical learning environment
34.	Kristofferzon et al., 2013	Sweden	Quantitative	Qualities of a facilitator
35.	Lawal, 2015	Jamaica	Quantitative	Clinical learning environment
36.	Lekalakala-Mokgele et al., 2015	Ghana	Qualitative	Clinical learning environment
37.	Madhavanprabhakaran et al., 2013	Oman	Quantitative	Qualities of a facilitator
38.	Martin et al., 2014	Switzerland	Mixed method	Shared vision
39.	Martin et al., 2016	Switzerland	Qualitative	Shared vision
40.	Matthew-Maich et al., 2015	Canada	Mixed method	Qualities of a facilitator
41.	Mayer et al., 2011	USA	Quantitative	Shared vision
42.	Middleton et al., 2014	Columbia	Qualitative	Intersectoral collaboration
43.	Monash University, n.d	Australia	Guidelines	Communication
44.	Morrel et al., 2014	UK	Qualitative	Clinical learning environment
45.	Msiska et al., 2014	Malawi	Qualitative	Qualities of a facilitator
46.	Muthathi et al., 2017	South Africa	Qualitative	Stakeholder involvement
47.	Nasrin et al., 2012	Iran	Qualitative	Qualities of a facilitator
48.	Nazari et al., 2015	Iran	Qualitative	Qualities of a facilitator
49.	Needham et al., 2016	Australia	Mixed method	Qualities of a facilitator
50.	Nosek et al., 2017	US	Qualitative	Stakeholder involvement

51.	Nyoni et al., 2016	South Africa	Qualitative	Stakeholder involvement, Qualities of a facilitator
52.	O'Driscoll et al., 2010	UK	Mixed method	Communication
53.	Okoli, 2017	Nigeria	Concept analysis	Communication
54.	Onuoha et al., 2016	Carribean	Quantitative	Clinical learning environment
55.	Ozturk et al., 2013	Turkey	Quantitative	Communication
56.	Papastavrou et al 2016	Cyprus	Quantitative	Clinical learning environment
57.	Papathanaiou et al., 2014	Greece	Critical analysis	Qualities of a facilitator
58.	Passi et al., 2013	USA	Quantitative	Qualities of a facilitator
59.	Perez et al., 2015	Spain	Scoping review	Qualities of a facilitator
60.	Peters et al., 2013	Australia	Qualitative	Intersectoral collaboration
61.	Reising et al., 2018	India	Multisite prospective, descriptive exploratory design	Qualities of a facilitator
62.	RNAO, 2012	Canada	Guidelines	Intersectoral collaboration, stakeholder involvement
63.	RNAO, 2016	Canada	Guidelines	Intersectoral collaboration, stakeholder involvement, Qualities of a facilitator
64.	Ryan et al., 2018	Australia	Qualitative	Communication, Qualities of a facilitator
65.	Sabog et al., 2015	Phillipines	Quantitative	Qualities of a facilitator
66.	Saifan et al., 2015	Jordan	Qualitative	Communication, Qualities of a facilitator
67.	Salifu et al., 2019	Ghana	Qualitative	Clinical learning environment
68.	Salmond et al., 2017	USA	Quantitative	Shared vision
69.	Schindler et al., 2015	USA	Synthesis of literature	Qualities of a facilitator
70.	Schinka et al, 2013	USA	Quantitative	Stakeholder involvement, shared vision
71.	Sibiya, 2018	SA	Qualitative	Communication
72.	Soriano et al., 2017	Philippines	Quantitative	Qualities of a facilitator
73.	Subke et al., 2020	South Africa	Qualitative	Clinical learning environment
74.	Suplee et al., 2014	USA	Quantitative	Qualities of a facilitator
75.	Tiwaken et al., 2015	Philippines	Qualitative	Intersectoral collaboration
76.	Victoria State Government, 2016	Australia	Guidelines	Communication
77.	Virgolesi et al., 2014	Italy	Scoping review	stakeholder involvement
78.	Vitale, 2017	Italy	Review of literature	Clinical learning environment, Qualities of a facilitator
79.	Tyne, 2018	US	Qualitative	Qualities of a facilitator
80.	White-Williams et al., 2013	USA	Quantitative	Qualities of a facilitator

4.3 DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

This section covers the demographic characteristics of respondents. Table 4.2 below presents summary statistics of the demographic characteristics of respondents who participated in the study.

Table 4.1: Demographic characteristics of participants

FGDs	**Age**	**GENDER**		**Number of participants**
		Female	**Male**	
Registered nurses FGDs				
FGD 1	48, 31, 50, 37, 26, 29, 41, 45	8	0	8
FGD 2	28, 54, 27, 56, 26, 40, 30, 47, 40	9	0	9
FGD 3	36, 43, 25, 28, 52, 45	6	0	6
FGD 4	55, 24, 29, 33, 38, 36, 58, 49, 57, 30, 27	11	0	11
FGD 5	35, 52, 27, 56, 34, 44, 44, 25, 37	9	0	9
Student nurses FGDs				
FGD 1	20, 21, 20, 23, 25, 29, 21, 24, 22, 21, 24	9	2	11
FGD 2	21, 24, 22, 25, 20, 21, 23, 20	7	1	8
FGD 3	24, 24, 27, 25, 23, 23, 26, 27, 25	6	3	9
Lecturers interviews				
Interview 1	59	1		1
Interview 2	41		1	1
Interview 3	48	1		1
Interview 4	55	1		1
Interview 5	45	1		1

As illustrated in the table above, a total of 43 registered nurses participated in the focus group discussions for registered nurses and consisted of 6 to 11 participants and their ages varies between 24 and 58 years. Focus groups for student nurses consisted of 6 -11 participants and their ages ranged between 20-27 years. Regarding individual interviews with lecturers the participants ages ranged between 41 and 59 years.

Regarding the gender of participants, Table 4 indicates that all registered nurses who participated in the qualitative part of the research were females. The gender of nursing students who

participated in the study consisted of 22 females and 6 males. Whereas 4 female lecturers and 1 male participated in the study.

4.4 PRESENTATION OF QUALITATIVE FINDINGS

The qualitative data were collected from eight (8) focus group discussions of which five (5) were held with registered nurses and three (3) with nursing students. In addition, five (5) in-depth interviews were held with lecturers from the University of Namibia, School of Nursing. During data analysis for the data were recorded, transcribed verbatim and coded. Thereafter, themes and sub-themes from each focus group discussion and interview were developed in order to generate evidence for the development of the guidelines. Themes and sub-themes from registered nurses were merged, then themes and sub-themes from student nurses were also merged and lastly, the themes and sub-themes from lecturers were also merged. Thereafter, the themes from registered nurses, nursing students and lecturers were merged. As a result, three themes and twenty sub-themes emerged. Below is an illustration of the themes and sub-themes that emerged.

4.5 DISCUSSION OF THEMES AND SUB-THEMES

The results of the study are presented in a narrative format using verbatim extracts from nursing students, lecturers and registered nurses, supported with relevant literature. Table 4.3 presents the themes and sub-themes.

Table 4.3: *Themes and sub-themes*

THEMES	SUB-THEMES
THEME 1. Challenges affecting facilitation of clinical nursing education by nursing students	• Poor interpersonal relationships • Lack of commitment and interest towards learning • Lack of preparedness amongst nursing students • High numbers of student nurses in practice • Lack of peer support among nursing students • Emotional reactions of nursing students • Peer influences among nursing students • Unprofessional conducts of nursing students
THEME 2. Challenges affecting facilitation of clinical nursing education by lecturers and registered nurses	• Poor interpersonal relationships • Lack of clinical supervision • Lack of motivation towards teaching • Insufficient knowledge and skills to facilitate clinical nursing education • Poor communication • Lack of role clarity of registered nurses towards nursing students • Shortage of staff
THEME 3. Support system challenges affecting facilitation of clinical nursing education	• Inadequate materials and equipment resources to facilitate clinical nursing education • Inadequate time to facilitate clinical nursing education • Workload • Lack of integration of theory into practice • Inadequate opportunities for learning

4.5.1 Theme 1: Challenges affecting facilitation of clinical nursing education by nursing students

Challenges concerning nursing students during facilitation of clinical education affect the clinical learning of student nurses during clinical attachment. Change in the nursing students' behaviours and performance can negatively affect their learning and professional performance. Identifying and addressing these challenges can help stakeholders solve these problems and assist nursing students to become professionals (Jamshidi et al., 2016). In this study, participants experienced different challenges that affected the facilitation of clinical nursing education in clinical practice. These challenges included lack of commitment and interest towards clinical learning, lack of preparedness among nursing students, high number of student nurses in practice, lack of peer support among students, emotional reactions of nursing students, peer influences among nursing students and unprofessional conduct of nursing students.

4.5.1.1 Poor interpersonal relationships

It is vital that nursing students share good relationships with registered nurses as this facilitates the identification of the different learning needs and styles of the nursing students (Lawal et al., 2016). This study revealed that some nursing students had negative attitudes towards registered nurses. nursing students refused to carry out tasks that were delegated by registered nurses. As a consequence of such attitudes, the interpersonal relationships between the students and the registered nurses deteriorated.

> *Sometime you delegate a student to a certain task, but that student will refuse to do that task. RN/FGD2-P6*

However, sometimes the nursing students' attitudes were provoked by the attitudes of registered nurses towards them. This was said by a student:

> *And some of the students' attitudes, they're being aggravated by nurses' attitudes as well, because there are also some of the nurses that will try to show these student nurses that they are nothing. If you try to show bad attitude to this nurse, this student nurse, sometimes somewhere, a human being will also lose their temper or will also lose control of their temper and they might revert that back attitude back to you. Because, it's not*

necessarily that most of them they are not having respect, they're not well-mannered, but sometimes, somehow, they respond to the way we treat them. RN/FGD3-P1

Furthermore, registered nurses confirmed that they had poor interpersonal relationships with some nursing students because of their negative attitudes towards them. This was confirmed by the following response from a registered nurse:

You may talk to them, and then with facial expression is where you read that this person doesn't have a good relationship with her or his colleague. So, not all of them who have bad attitudes, but some of them they have, very bad attitude. You may even read on the facial expression. RN/FGD3-P6.

Another registered nurse was of the opinion that some registered nurses also had bad attitudes towards nursing students. They favoured students who mostly had experience, at the expense of others who did not have experience, causing low self-esteem in students. A registered nurse stated:

We might say you are working with a student who shows that he or she is and also us as registered nurses we also have attitudes. We tend to favour some students contributing to the ones who have not experience, so sometimes we are the ones who are causing low self-esteem. RN/FGD4-P4

According to Aragaw, Sinishaw, Daba and Mekie (2019), a negative attitude towards registered nurses and clinical practice hampers the acquisition of essential clinical skills while a positive attitude enhances effective clinical learning.

4.5.1.2 Lack of commitment and interest towards learning

Behaviours of students such as reporting late or not coming to the clinical area at all, may compromise students' acquisition of clinical skills (Kaphagawani, 2015). The study found that there were students who were eager to learn, while others had less interest. This was revealed by the following participants' responses:

What I have experienced is that there are students who are willing to learn, there are those who are not willing to learn. RN/FGD2-P2

There are some that they are not showing any interest or knowing the activities in that department. Because you can be allocated with the student but you will just see that student morning time up to nine there, then disappear. Like that student is already showing he is not interested because he could be next to you observing what you are doing and asking you questions how is this being done, what's that what you are doing, but some of them they don't do that. RN/FGD1-P4

The students are not interested in their practical things, because when you are teaching them, and after you teach them, you ask them their books so that you can sign. Most of them they say I forget it at home, they didn't come with their books always. In the point of absence of work, most of them you see them in the morning hours, you see the students, but from lunch time you didn't see them. Maybe some of them when they are coming on the time to knock–off so that you can sign the attendance but you didn't see them the whole time. RN/FGD1-P6

The study further discovered the reasons why some students were not committed to or interested in their studies. Some students came to the nursing profession, not because they liked the profession but because that was the only option available. Another reason was that the parents decided for the children to take up the profession even if they did not like it and were not interested in it. Lack of allowances to the students also influenced their commitment and interest. This was mentioned by a participant:

Sometimes the person didn't really choose to come to nursing because the person is interested in nursing, either is forced by circumstances, the person wanted to do something else but because the circumstances didn't allow her or him to do that and the only option that person got is to do nursing. Or sometimes it comes from the parents, they want their child to become a nurse but the person doesn't really have that, you know the caring of others at heart. So, those can be the contributing factors. And another thing, I don't know, in the past, if I can compare the current students and the previous groups we use to have. When the previous groups were given something far

away they are contributing to nursing care that can also be the contributing factors that they are not interested in the caring. They're not given allowances, not to get a salary, but an allowance so that they can see that I have to do it because at the end of the day I will get something. INTERVIEWER 2

Lack of commitment, motivation and interest among students make it difficult for registered nurses to help, guide and support them during clinical placement because at times when they are on duty they are just sitting with their earphones on, talking to one another and not taking part in the ward activities. A registered nurse said:

My experience neh, with the students, they are mostly they are not willing to volunteer. Like when someone is delegated either at ANC, normally when they are done here, you'll just find them sitting down, but there are other things that they don't know. Sometimes when you say, can you please go help with the parameters, some they will even insist or they will rather run away or disappear and then you will not see them anymore. It becomes difficult helping them, sometimes like early in the morning, they will come, they will just sit instead of doing those basic things like dusting, preparing the room. RN/FGD3-P2

Another participant said:

Their attitudes towards learning, first of all, the students are not serious, they don't care. They will come in the ward, then you delegate them, after delegation, some of the students they disappear. A person is delegated, let me say in dressing, that student will not come and follow up in dressing to see how dressing is being done and the whole day you will be looking for that student to work with, where is the student nurse? Where is the student? The student is nowhere to be found. So, most of the time they don't, they are not willing or they are not interested in knowing the procedure. Sometimes you can be doing the procedure with the doctor, then those students are just sitting, laughing their things there but they are supposed to come and see

the procedure being done by the doctor. Most of the time, they are not interested in knowing most of the procedures. RN/FGD5-P5

Lecturers stated:

And also other thing from my experience is the ownership on the side of the students. They seem not to take ownership of their own training education because at times you may, we hear complaints coming that students are not, they show no interest, they are just seated, they don't want to come forward just to show that they want to learn practical things when they are at the clinical area. INTERVIEWER 4

The results of this study concur with the findings by Nasrin et al. (2012) that revealed that the lack of interest and motivation among nursing students hindered clinical education.

Contrary to the view that there was a lack of commitment among student nurses, some participants said that there were also students who were committed and interested in nursing. This was confirmed by the following participants:

Many students are so committed to their studies or to their practical work whenever they are on clinical allocation. RN/FGD2-P1

But some of them they are really keen, they really want to know, they really want to learn, they will try to ask the basics in the morning, can I, when I am preparing for let say for oxygen, what do I need, how do you open the oxygen, how do you connect. RN/FGD5-P3

4.5.1.3 Lack of preparedness amongst nursing students

The study revealed that many students were not ready for clinical practice. Many students did not have sufficient knowledge of what was expected of them in clinical practice. Jamshidi et al. (2016) state that inadequate preparation of nursing students before entering the clinical environment creates problems for them and the registered nurses. One registered nurse said:

> *Some don't even know what kind of procedures, because one can, you can even demonstrate a certain procedure to them, let say maybe you happen to have a certain case in your ward, one can have a procedure in his or her book but that procedure might come once in a time or in a while in a ward, but they don't, if they don't know what is that procedure is in their book, there is no way they can track that we need to be demonstrated more on these procedures. Because some procedures are rare, so if they don't know what is really in their books, they can also miss some cases. RN/FGD2-P1*

Another participant stated:

> *So, when they come here, is they like they expect somebody maybe to tell them that today you are going to do this. Let me say, let me give an example of abdominal palpation, students they will just be here, but they are expected to palpate, but they are just here as if they don't have a clue of what is happening. RN/FGD3-P1*

The findings of this study further revealed that nursing students were not properly oriented to the clinical environment. As a result, nursing students found it difficult to get the required resources including equipment and materials to carry out certain tasks. A student reported:

> *So sometimes we are just being oriented maybe not all the rooms like this is the rooms for what what, what, what, but even at the nurses' station, that you will learn it throughout the week. So, you gonna know, but sometimes that is not more sufficient, for most of the registered nurses can even send you that I need something from sluice room, but it's your first day at practice so, you didn't get anything from the orientation that day. SN/FGD2P2*

The statement from the nursing student above was supported by a study done in South Africa by Manamela (2019) that revealed that nursing students were not properly oriented within the clinical learning environment resulting in increased anxiety during their clinical placement.

4.5.1.4 High numbers of nursing students in practice

Students are allocated to clinical settings for clinical learning experiences and opportunities in order to gain confidence and become competent in practical skills. Congestion of students in the clinical environment results in students finding it difficult to learn as they have to compete to perform procedures. As long as the numbers of students' increase, they are not given adequate opportunities to learn, which may compromise meaningful learning and supervision. As a result, students may not receive sufficient guidance and will not have developed competence in some tasks or procedures after completing their training, and so be unable to provide quality nursing care to patients.

Furthermore, the increased intake of students caused congestion in the clinical area which aggravated the need to compete for opportunities for clinical learning among students. The increased burden on the clinical environments meant that the registered nurses were unable to adequately support and provide supervision to students (Evans, Razia & Cook, 2013). Consequently, students might not be able to achieve their clinical outcomes, learn effectively and become competent nurses. This study discovered that the number of students allocated to the various clinical departments was indeed high, making facilitation of clinical education and supervision difficult. Participants stated their concerns:

> *Since students they are a lot, you can be having like teaching more than like ten students that you are teaching. RN/FGD2-P3*

> *I think, the students are too much and the registered nurses are few. You can't teach the, maybe twenty or fifteen students you alone and you have other work that's waiting you and here you have the student nurse is waiting you only to teach them. For my point, the students are too much for us. RN/FGD1-P8*

4.5.1.5 Lack of peer support among nursing students

Peer support in the clinical environment is a vital element in facilitating students' peer learning. Peer learning is a pedagogical model based on the idea that learning involves cognition and that experience, understanding and knowledge-building are shaped in interactions between human

(Mamhidir, Kristofferzon, Hellstrom-Hyson, Persson & Martensson 2014). Therefore, students' relationships are important for learning as they support each other, discuss their practice, share knowledge, skills and experiences, thus being socialised in the profession. Bourgeois et al. (2011) found that students working together share experiences, support one another and discuss problems and issues about practice together. Lapena-Monux et al. (2016) observe that students gain many skills by watching what their peers do, and this helps them to gain self-efficacy and achieve clinical self-esteem. This study, however, reported that students did not support each other during clinical placement and those who had knowledge were not willing to share it with their fellow students. This was evident in the following statement:

> *Students themselves they don't support each other. When someone know, she or he will be selfish to tell or to teach other students. RN/FGD2-P2*

Lack of peer support in the clinical environment is manifested by conflicts, tensions and competition for opportunities for practice which is detrimental to learning (Chuan et al., 2012).

4.5.1.6 Emotional reactions of nursing students

An emotion is defined as a conscious experience that includes a state of arousal and a mediating interpretation (Dess, 2010). Emotional reactions refer to how the student nurses react to certain experiences. These reactions include anxiety, stress, anger and sadness. Students become anxious and overwhelmed in dealing with new experiences within the clinical environment (Jamshidi et al., 2016). From the registered nurses' perspective, providing care to patients of the opposite sex especially in the first year of their study was stressful for students. In many instances, students would just give excuses because they were scared to come too close to the patient. A participant asserted that:

> *They will just be giving you excuse just because the person is scared just coming to the bed, seeing that woman on that bed naked it's also something else to them. At least to a female is better, they will prefer coming because it's the same sex, not a problem. But to a male, some of them they are eighteen, nineteen and these people that are coming here, they are of their parents age and then sometimes it becomes a problem when you are saying,*

> *come do the physical examination, the person might even disappear, that's why sometimes when you look in their logbook, the female might be ahead then the male. And then the male they will just be forced to do this at the last minute when the book is about to due, just because the person doesn't have a choice. RN/FGD3-P2*

These findings are consistent with a study done by Jamshidi et al. (2016) that indicated that many students who participated in the study were distressed and overwhelmed in dealing with new experiences within the clinical environment.

When registered nurses were not willing to assist and guide students during clinical placement, the students were likely to develop fear and low-self-esteem which might negatively affect their learning opportunities and experiences. One participant said:

> *So if you put all your attention to the one who knows, what about the one who doesn't know? This one will keep quiet and maybe sometimes the student will develop a fear of, I don't know anything, of saying, can you please teach me because you said she knows nothing. RN/FGD4-P4*

Alshahrani et al. (2018) stated that anxiety does not always have an absolute negative effect. Anxiety can be used to positively motivate students to improve performance during clinical placement (Fidment, 2012; Studen, Halcomb & Jefferies, 2015). Being aware of feelings of anxiety may enable student nurses to develop essential coping mechanisms that prepare them to manage stressful situations during clinical placement. However, if high levels of anxiety are not managed properly, these can distract student nurses' attention from the required tasks of the clinical placement, thereby affecting clinical learning (Levett-Jones, Courtney-Pratt, Harbrow & Rossiter, 2015).

4.5.1.7 Peer influences among nursing students

Peer influences have been considered to have both positive and negative outcomes on students' academic performance. According to Mosha (2017), peer relationships, socialisation, environment and drug use had a great influence in determining students' academic performance.

Based on the findings of this study, participants revealed that the student nurses influenced one another negatively and this had an impact on their academic performance. Another participant stated:

> *The other thing is peer influence. Some students when they come to the institution, they are good, but because of their involvement with other peers, they may find that there is this other group who are not committed, who are doing some other things, then if that student happen to join that group, you will find that the person will deviate from the normal she or he was brought up at home and the interest may get lost so that she can be commit herself or himself to the course. INTERVIEWER 3.*

The findings of this study are consistent with a study done by Mosha (2017) which indicated that poor academic performance at the schools occurred because of negative influences among peer groups but contradicted the study by Omotere (2011) who revealed that a peer group could positively influence the academic performance of nursing students.

4.5.1.8 Unprofessional conducts of nursing students

Nursing training is grounded in theoretical and practical training. The training aims to develop the critical and creative thinking skills of students and enable them to use the acquired knowledge and skills in the care of the individuals for whom they are responsible at the highest level. Experiences in this process develop the communication, decision-making and observational skills and professional behaviour of students (Altiok & Ustun, 2014). Professional values are demonstrated in ethical codes that clarify nursing profession practices, the quality of professional care and professional norms (Poorchangizi, Borhani, Abbaszadeh, Mirzaee & Farokhzadian, 2019). The successful academic performance of nursing students is contingent upon an array of variables which include both academic integrity, and ethical and professional conduct (Anselmi, Glasgow & Gambescia, 2014).

In this study, the participants were concerned that the students were not conducting themselves professionally. They claimed that the student nurses lacked the qualities of professionalism. It was reported that students were reporting late for work, absented themselves from clinical practice

without seeking permission and used mobile phones during working hours. The participants were concerned and doubted whether students were taught ethics at school. These were the concerns of some of the participants:

> *I don't know whether they were maybe taught about ethics, they don't have manners. You may even find them sitting as my colleague said, they don't worry whether you are like your lecturers comes in, they're just sitting. They may even use their phones and play with their phones. RN/FGD3-P3*

> *I happen to talk to some one day, that we don't allow to work with cell phones and only some who put them in their bags, but some they continue. So, showing some attitude like you are also having a phone, and you don't want us to use our phones. Then from there, I just said, no, the correct way is only not to use the cell phone but, only some can agree to it. RN/FGD4-P6*

> *From observation, you can see even in the class the students they don't show professionalism, manners are not there. INTERVIEWER 4*

These findings concur with a study by Awuah-Peasah et al. (2013) who found that nursing students were often absent from clinical practice and reported late. Such unprofessional behaviours lead to missed learning opportunities, thus affecting clinical learning (Awuah-Peasah, et al., 2013).

4.6 Theme 2: Challenges affecting facilitation of clinical nursing education by registered nurses and lecturers

Nurses play an essential role in health care delivery system. They are known to be advocates for health promotion, educators of patients and the public about the prevention of illness and providers of care to assist in the curative and rehabilitative aspects of the treatment of individuals (Alharbi & Alhosis, 2021). In addition to these roles, registered nurses have a teaching responsibility towards nursing students during clinical attachments. However, this study has noted that there were challenges related to registered nurses and lecturers that affected the facilitation of clinical education, as illustrated in Table 4.1. These are described below:

4.6.1 Poor interpersonal relationships

Interpersonal relationship is the social link between two or more persons and is often based on the emotion of love and liking (Ejifugha, 2011). Interpersonal relationships in this study refers to the interaction between registered nurses and students and includes all the elements that facilitate and/or hinder an optimal contact between nursing students and registered nurses. The degree of learning, skills development and confidence of students is influenced by their relationships with registered nurses (Lapena-Monux et al., 2016). Good interpersonal relationships between registered nurses and students in the clinical setting are vital for effective teaching and learning to take place. Therefore, registered nurses' interactions with student nurses can have a positive effect on nursing student academic achievement and behaviours (Froneman, Du Plessis & Koen, 2016). Effective learning takes place in a clinical setting that allows for discussion, questioning and clarification around the clinical practice and encourages students to reflect on their learning, thus leading to the development of critical thinking skills (Henderson, Twentyman, Eaton, Creedy, Stapleton & Lloyd, 2010).

Poor interpersonal relationships make students frustrated, demoralised and demotivated because they are working in a tense environment. This has negative consequences for the academic performance of students because their learning experiences and acquisition of knowledge and skills are negatively affected. In this study, some participants were concerned that the interpersonal relationships between registered nurses and student nurses in the clinical setting were not always satisfactory and affected the learning of students negatively. The study further revealed that some registered nurses avoided students and did not like to associate with them. One student said:

> *Some they have bitterness in themselves and then by the end of the day, they don't really like to associate with that very same nurse, they try to avoid her in other way or when they are delegated with that same nurse, he or she tries to at least avoid herself from being embarrassed by that same nurse because sometimes some nurses come with their stresses at work and try to resilient on top of us. SN/FGD1-P4.*

The study further revealed that because some registered nurses had personal problems they were displacing their anger on students and as a result the student would not want to work with such a registered nurse. This was revealed by one student:

> *The fact that maybe they are also going through some difficult time so that they are just displacing their anger on you. You might feel bad and blank; no I don't want to work with this sister or I don't like this department. SN/FGD3-P3*

Students also voiced their disappointment about the discriminatory remarks and behaviours that were made against them by registered nurses. According to what they claimed, the greatest discrimination in the clinical setting was the behaviours of registered nurses towards UNAM students. A student revealed that:

> *Sometimes is also bad like to us UNAM students, they always compare us to Welwitschia students, they say Welwitschias are good and us we are always dodging, we are always lazy and all that. SN/FGD2-P7*

Another student stated:

> *On the bad side, there are those registered nurses who can, they are just judging you like when you come at certain department like let me say at maybe January there, when you come at practice after exam, I mean after holiday, they will be like no, a third-year student but you don't know medication. SN/FGD1-P9*

Furthermore, students claimed that they were also discriminated against and victimised based on the institution where they were trained. One participant stated:

> *Some registered nurse they love comparing students from different institutions, like they love comparing UNAM and Welwitschia. Let me say Welwitschia student have been allocated for example in labour ward this year and they were taught something and for me I am just coming and that particular thing I wasn't taught about it, and then we are both in third year*

with that particular student for example and then let me say the case comes that student nurse from the different institution she knows how to handle the case, for me I don't know, ok fine. SN/FGD1-P5.

Participants felt that this discrimination was affecting their practical learning negatively. They expressed concern that the poor relationship had a negative impact on their skill acquisition in the clinical set up. A student said:

Some will be there they try to avoid you so that they won't teach you anything, they are just there avoiding you, you won't even look at them, you can feel it that they are avoiding you. SN/FGD1-P10

On the other hand, students also claimed that some students' behaviour or approach towards the registered nurses was so bad that it resulted in poor interpersonal relationships. As a student stated:

Some of the students the way we approach nurses can also cause them to treat us badly. SN/FGD1-P3

Another student said:

Some of the students they approach, ok the sister, the way the person is asking really to be taught or asking for the sister to help, is not just as if that person want help. SN/FGD1-P7.

Some participants revealed that sometimes the relationship was determined by the attitudes of students as well as their clinical performance. If a student was not willing to do certain tasks as assigned by the registered nurse, or was not competent in carrying out nursing activities, then the relationship would be negatively affected. This was confirmed by a student:

The relationship between the registered nurse and student nurse should be slowing down; even the registered nurse will not even tell you or ask you to do something. Sometimes students they are just not willing or they are not competent just by what they are doing sometimes. So the registered nurse will have a slow, a little relationship between you with the student. SN/FGD2-P3

Another student claimed there was a gap between registered nurses and students because the students were afraid to approach nurses in order to be guided or supported. In addition, the students further stated that the attitudes of registered nurses, the way they talked to them and the way they approached them also determined the relationship. A student stated:

> *The relationship between students and nurses I can say there is a gap. Mostly the students are always fear of approaching the nurse and maybe it's also the attitude of the nurse towards the students can also contribute to that. But it also depends on the individuality, the way you are talking to them or how did you approach them maybe it can also help them to make it easier for them to approach you to ask for help. SN/FGD1-P1*

The study further revealed that the attitudes of the registered nurses towards nursing students were not favourable. Previous studies show how registered nurses' attitudes and behaviour towards students can vary, influencing their integration into the clinical practice environment (Aghamohammadi-Kalkhoran, Karimollahi & Abdi, 2011; Shahsavari, Parsa-Yekta, Houser & Ghiyasvandian, 2015). In this study, it was discovered that some registered nurses displayed negative attitudes towards student nurses, which might be an obstacle to effective facilitation of clinical education. The study revealed that some of the registered nurses were not willing and ready to assist students. According to Dale, LeLand and Dale (2013), unfriendly staff with bad attitudes deny and hinder students' opportunities to learn. The participants in this study aired their concerns as follows:

> *One thing I have experience is that most of us, registered nurses we are ignoring the students. RN/FGD1-P1*

> *The attitudes of us registered nurses sometimes I have learned or I have experienced that most of us what we went through when we were students, we just want to put it, to pay back on the poor student who was not even available that time. RN/FGD4-P2*

Participants stated that they were labelled and shamed by registered nurses while in clinical practice. The negative remarks made students lose their confidence and develop inferiority complexes. This was supported by the following statement by a student:

> *Now it happens that I wanted maybe to do, let me say to put up a blood transfusion of the patient and there was already another fourth year student who failed to put that up, this sister happen to announce it in the ward that, no, I will not allow you, you are not competent, your colleague was already here and then she just messed up the blood and all that, which affect us in such a way that even if I am really committed and I know that I know how to put up a blood transfusion set, I wouldn't really do it anymore because I am already embarrassed, everyone in the ward they already knows that, we are already labelled that fourth years we don't know anything, just because of one person who failed. SN/FGD2-P1.*

A lecturer stated:

> *There is kind of discrimination, yes, between students. If they see you are from UNAM, yes they label you because you don't know, other students from other institutions they are seen as they know better but the question will always remain, do we assist the students properly so that they can also be in the same boat like other students who are doing well? INTERVIEWER4*

Discrimination against student nurses from other institutions was reported as a factor that distorted students' professional identity in practice. Moreover, labelling and comparing nursing students on the basis of their training institutions violates the personal dignity of students and gives a sense of professional inferiority (Jamshidi et al., 2016).

4.6.2 Lack of clinical supervision

Clinical supervision is a formal process of professional learning support which enables student nurses to develop knowledge and competence (Habimana, Tuyizere & Uwajenezawhen, 2016). The goal of supervision is to foster a close relationship between registered nurses and nursing students which will facilitate students' learning and provide guidance and support (Papastavrou, Lambrinou, Tsangari, Saarikoski & Leino-Kilpi, 2010). Clinical supervision of nursing students in clinical practice plays a significant role in nursing education as it has an influence on the students' acquisition of knowledge and skills (Kaphagawani et al., 2013). Thus, clinical

supervision is an important element in facilitating learning in the clinical setting. Lack of supervision may lead to students learning incorrect procedures due to lack of guidance, becoming incompetent and doing as they wish. This was confirmed by the participant:

> *They allow students to do as they want, if they disappear, they just disappear, no disciplinary actions taken against those students who are doing wrong things in the service, they can be absent, they can, you find them they move just around units, they change themselves from this unit to other units but, the nurses there who supposed to take this responsibility they just let it be. INTERVIEWER 4*

Another concern that was observed was that registered nurses did not want to take ownership of the students. They always referred to the students according to the institutions where they were being trained.

A lecturer mentioned:

> *What they do when they see you in the corridors, they can even start shouting, no, but your students here they disappear, they don't do the work, it's like someone is isolating himself or herself from his responsibility. They don't want to take the responsibility into their hands, just to assist students and correct them where they are wrong and take actions against students who are not following. Nurses at the clinical area they are not doing their job in a sense of proper supervision, because they want to take away the responsibility and maybe just take students that, it's your students. INTERVIEWER 4*

Kaphagawani et al. (2013) are of the opinion that lack of supervision may lead student nurses to learn incorrect procedures because of lack of supervision and guidance.

4.6.3 Lack of motivation towards teaching

The registered nurses have a teaching responsibility to ensure that nursing students placed in their units are able to acquire appropriate clinical skills, knowledge and attitudes. The registered nurse

should facilitate learning of the nursing students, thus creating learning opportunities and directly assisting the students to optimise their learning outcomes. Unfortunately, some of the registered nurses ignored their teaching role, and were shifting their responsibility to lecturers. One lecturer indicated her concern as reflected in the following statement:

> *And not all registered nurses that are allocated at certain unit are willing to teach. So, there are few registered nurses that are in the ward that are willing to teach these student nurses. INTERVIEWER 4*

The study findings further indicate that there were registered nurses who were motivated to teach students but there were those who were not willing or motivated to teach. These is what some of the students had to say:

> *Some registered nurses are very committed because for instance the first day the students are allocated to the ward, the nurses will ask, what is in your practical work books, what do you need to be taught so they can find time to teach you guys before you leave the clinical allocation without being taught anything. They try to make sure that what once you get here within that time you are allocated at least you get out of the department knowing something and not just come and work for hours without having any experience. So, some of them are very committed. SN/FGD1-P6*

Other students stated:

> *Some are not prepared, I mean, are not committed to teaching, sometimes they'll tell you that students annoy them with their books, practical logbooks or sometimes they will even tell you that they are not paid to teach UNAM students because it's an extra job for them. SN/FGD1-P3*

A lecturer mentioned that:

> *There are those registered nurses who are negative towards teaching students or helping them or assisting them to try to put what they have learned into practice. Interviewer 4*

Participants stated that heavy workload, staff shortages, busy wards or health facilities and lack of time were all factors that influenced registered nurses' motivation and teaching abilities. This is consistent with the findings by Lapena-Monux et al. (2016) that some registered nurses avoid having students as this increased their workload. A registered nurse stated:

> *In nowadays, health facilities, they are always full, most of the time, they are always full, most of the time they are always full to the capacity until its late. There you cannot be able to get time to teach the students and at the end of the day, this student will lose trust in us. We're supposed to assist them, but at the end of the day, we did not do what we were expected to do. RN/FGD3-P5*

Another registered nurse aired her frustration:

> *Lack of registered nurses, shortage of registered nurses also contributes to the challenge that we meet here when it comes to teaching students. You find yourself teaching a lot of students because on duty, you might be just two registered nurses on duty and you have a lot of students. RN/FGD2-P1*

It was noted from the discussions that registered nurses were not motivated to teach because of lack of rewards and recognition of their roles involving the clinical education of students. However, it was interesting to note that even without rewards and recognition, some registered nurses still taught the students during clinical attachment. Registered nurses were of the opinion that the training institutions should provide incentives for them to show appreciation for their efforts and contributions towards students' clinical teaching and learning. These sentiments are illustrated in the excerpts:

> *Perhaps maybe we can get a certain amount just to motivate us because like the Doctors I heard they are getting something from the government or from UNAM, just to teach the students. That's why there is a difference between how we teach students and how the Doctors teach their medical students. It seems, they are getting something, so us, we should also get something so that we can be interested in teaching them. RN/FGD2-P3.*

Lack of motivation and commitment among registered nurses had a negative impact on students' clinical learning experiences as they were not able to learn the required skills and competencies.

4.6.4 Insufficient knowledge and skills to facilitate clinical nursing education

Registered nurses are responsible for the training of nursing students both for their future role as competent nurses and for their capability of working with colleagues. Therefore, they are expected to be knowledgeable and clinically competent in nursing activities as they serve as role models for nursing students. Allari and Farag (2017) in their study mentioned that students regarded having interpersonal skills, clinical capabilities and proficiency in teaching as important characteristics for registered nurses. In this study, student nurses were concerned that some registered nurses did not have adequate knowledge and skills to facilitate clinical nursing education and transfer knowledge to them. Some registered nurses failed to provide sufficient knowledge and skills to carry out certain clinical tasks. This was reported by a student:

> *You approach a nurse but that nurse doesn't have a knowledge about that procedure. SN/FGD2-P4*

These findings were supported by a study done by Kalyani et al. (2019) where students complained that some clinical instructors and nurses did not have adequate knowledge and skills to transfer knowledge to them. They further claimed that some instructors failed to provide sufficient detail about medications, procedures and care required. Their study further revealed that registered nurses lacked orientation for clinical teaching, knowledge in some areas of nursing and clinical supervision. Moreover, a study by Mbakaya et al. (2020) reported that registered nurses were not adequately equipped to support students during clinical practice. These findings indicate that those who teach and supervise students in practice may not be sufficiently equipped for their role.

This study revealed that some registered nurses were not knowledgeable in facilitating clinical nursing education because they were teaching students verbally instead of practically. This was supported by a study by Kristofferzon et al. (2013) who found that most registered nurses had a traditional education without academic training, and this might be a limiting factor in helping and teaching students in practice. The implication of being taught verbally instead of practically is that

the students will not learn the technique of carrying out a certain procedure, and as a result, they will not develop psychomotor skills. One student voiced her concern:

> *But some, as the person is doing a procedure, but I don't know is because of time or I don't know if it is lack of skill but, sometimes they don't do the way things have to be done or though sometimes they teach you in specific way that is not the correct way that they expect you to do it in the correct way. SN/FGD1-P1*

This was highlighted by one student:

> *At times procedures need to be done thoroughly, but some registered nurses prefer to do them or to teach us just verbally, they just verbalise, they will just tell you, you just need to take this and this, but then they actually don't show us the clinical procedures like practically the way we get evaluated when our evaluators come from school and then they evaluate us, but they just say it verbally. SN/FGD2-P1*

The findings of the study indicated that some registered nurses had knowledge on how to do certain procedures but lacked the teaching skills. This sentiment was supported by a study by Oprescu et al. (2017) which revealed that registered nurses lacked confidence in teaching skills and assessing students. Participants narrated:

> *Some they know how to do things, but to give to others, they don't know. The person can do it in practice, you can observe, but just to give like to tell and educate, you cannot get anything, like that." RN/FGD2-P7*

> *"Sometimes nurses at practice when now they are teaching, some teach, even you can see that like this nurse has knowledge and there are those who teach just for the purpose of teaching, just to excuse the student from being followed every day. Ok, some can say, you need this and this and you can go Google or what what or maybe when she is teaching, she has a phone, googling also the answers or the correct answers because maybe he or she also doesn't know. SN/FGD2-P3*

On the other hand, the performance of registered nurses who were knowledgeable and skilled in providing clinical nursing education depended on their years of experience as a nurse or the years of experience working in a particular department. Nurses who were more experienced in nursing were more knowledgeable than less experienced nurses. This was stated by the following participants:

> *You can see they are quite skilful though, depend on their experience of work. Of course, the majority are well experienced. You can congratulate them on that, really experienced especially in these departments such as labour; you can see there are some well experienced registered nurses. SN/FGD2-P2*

> *I could not really say the reason behind that, maybe they can doubt themselves just because they are also just coming from the University and then they don't have adequate skills or knowledge on a particular procedure. SN/FGD2-P5*

Another concern raised by the participants was the inappropriate way of carrying out procedures. It was also discovered in this study that registered nurses were doing procedures in a shortcut manner which negatively affected the students' clinical learning. The following participants related:

> *In some wards also, we can be lacking experience because the registered nurses there in the ward they are not doing what they are expected, like they are doing shortcuts. They are doing shortcuts; they don't do the whole stuff, like they do a short thing. SN/FGD2-P7*

The implication of doing procedures in a shortcut manner is that it deprives the nursing students of knowing the correct way. Therefore, the skill acquired in that way will not make the nursing student clinically competent. Another participant reported:

> *There are those who are really skilled, sometimes there are those who are really skilled but they are not using their skills. And then there are those*

ones with knowledge but they are not using their knowledge, they just want to do it rough and then it differs just like that. SN/FGD2-P3

The study pointed out that there were registered nurses who were not confident in providing clinical education. They doubted themselves, taught unsystematically and in a shortcut manner. Their lack of knowledge and skills impacted negatively on the students' practical learning as they would not know how to carry out the procedure or activity practically. One student stated:

There are those ones who, ok, they'll be doubting themselves either doing the procedures but they will also do them shortcuts as they were maybe trained when after graduating when they were students as they are now newly and they are just use to those shortcuts doing procedures. SN/FGD2-P4

Conversely, some participants indicated that some registered nurses were knowledgeable and competent in facilitating clinical education. This was demonstrated by the following students:

Some are very much competent and they know really even when they are doing procedures, they know what they are doing and even when you are there being taught by them, you can see that this person really knows and you can pick up something. SN/FGD2-P4

Another participant stated:

Of course, the majority are well experienced. You can congratulate them on that, really experienced especially in these departments such as labour, you can see there are some well experienced registered nurses. SN/FGD1-P2

4.6.5 Poor communication

Communication is seen as a key factor in supporting, guiding and facilitating clinical nursing education for nursing students during clinical attachment. However, the participants in this study stated that there was poor communication between nursing students and registered nurses. This was revealed in the study as participants narrated that the registered nurses were shaming nursing

students in front of colleagues and patients. In addition, registered nurses were also blaming nursing students for not knowing anything. This was narrated by a participant as follows:

> *If I ask them to teach me how to put up a drip and I am in fourth year, you'll just be shamed but I am not ashamed to say I don't know how to put up a drip, I am in fourth year, yes, but if I say that you'll just be ashamed, you are even the fourth year but you don't know how to put up a drip. We happen to be ashamed in such a way that when one student fails to do a procedure, then we are all included. SN/FGD2-P1*

The effect of shaming and labelling nursing students has a negative effect on the students' clinical learning as it leads to demoralisation, demotivation and an inferiority complex (Jamshidi et al., 2016). In addition, nursing students do not achieve the clinical competencies because they are not given the opportunity to practise as a result of insufficient knowledge and skills. This situation deprives the nursing students of learning opportunities as they are denied the opportunities to practise. This was revealed by a participant as follows:

> *Now it happens that I wanted maybe to do, let me say to put up a blood transfusion of the patient and there was already another fourth year student who failed to put that up, this sister happen to announce it in the ward that, no, I will not allow you, you are not competent, your colleague was already here and then she just messed up the blood and all that, which affect us in such a way that even if I am really committed and I know that I know how to put up a blood transfusion set, I wouldn't really do it anymore because I am already embarrassed, everyone in the ward they already knows that, we are already labelled that fourth years we don't know anything, just because of one person who failed. And then the other thing is also that, our competence happens to be reduced even if I am really willing to do a procedure or when I know that I am competent in putting up a drip. SN/FGD2-P1*

It was also reported in this study that some registered nurses shouted at nursing students in front of patients if they did not know how to perform a certain activity. Manamela (2019) also reported

that registered nurses did not talk to students in a good manner but shouted at them and called them names. This kind of communication decreased the self-esteem and confidence of nursing students and induced a feeling of worthlessness. The following statement was made by a participant:

> *Some nurses they, ok in case if you don't know something, some of the nurses, the way they will just shout at you, instead of correcting you in a correct manner because you are still learning, you are a student and you cannot just make a mistake because you want to make it. Sometimes is because you don't know, but the way the person will react or shout at you, even among the patients, so you will feel so down yourself. From there you even will be looking down on yourself, like I'm useless, I don't know anything. SN/FGD3-P 7*

4.6.6 Lack of role clarity of registered nurses towards nursing students

Registered nurses play an important role in the clinical skill acquisition of nursing students during clinical placement. They liaise between nursing students, clinical staff and education providers (Cranley, Cummings, Profetto-McGrath, Toth & Estabrooks, 2017). This liaison role involves working with nursing students so that they understand the purpose and goals of their clinical placement (Sanderson & Lea, 2012). This role includes supporting other health care workers to demonstrate a welcoming attitude towards nursing students and understand the students' learning needs and be available to support them. In addition, registered nurses play a teaching, supervisory, mentoring and supporting role towards nursing students in their professional development (Lamb et al., 2018). Lack of role clarity is a major factor hindering the clinical role of registered nurses. The evidence from this study revealed that some registered nurses did not fulfil their roles towards nursing students' clinical learning. This was demonstrated by the following concerns from participants. As one participant stated:

> *They don't want to take the responsibility into their hands, just to assist students and correct them where they are wrong and take actions against students who are not following. INTERVIEWER 4*

Registered nurses are entrusted with a teaching role to ensure that students allocated in their units are able to acquire appropriate clinical skills, knowledge and attitude. Unfortunately, some registered nurses ignored their teaching role and participants indicated their frustrations about this, as reflected in the following narration:

Another participant voiced her concern:

> *Some are not willing to teach students because maybe they don't understand one of their functions, because some of them they think when students they are there, somebody else should be either willing or should be allocated to them, sometimes they are saying no, these student nurses they are not ours. So, they forgot that one of their responsibilities apart from running the ward or taking care of the patients is to teach these student nurses. Some of them they don't understand that responsibility. INTERVIEWER 5*

The above statements are supported by Henderson et al. (2011) who indicated that registered nurses perceived clinical nursing education as a burden. They further revealed that registered nurses were ill-prepared for their teaching role and had an inadequate understanding of it.

Although registered nurses have an important role to play in the clinical development of nursing students, according to the findings of this study, they seemed not to be aware of such a role. These findings were supported by a study by Rikhoto, Williams and de Wet (2013) which indicated that providing guidance, support and clinical teaching to students was seen as an unwelcome extra workload which was aggravated by understaffing. Due to the shortage of staff in the wards, the guidance, support and clinical teaching of nursing students became less important.

A participant said:

> *I think also that it's important for all the nurses to be made aware that it's their responsibility to teach the students and make sure that they gain all the necessary knowledge that they need before they leave that department. I think (laughing) that's very important. They need to know because some of them it's like they don't know if they are responsible for that. It's like they*

are doing you a favour or something, it's not like something in their scope of practice. SN/FGD3-P4

It is imperative for roles of registered nurses to be defined because if they are not clearly described, role ambiguity can occur, leading to role uncertainty that can hamper teamwork and effective facilitation of clinical nursing education (Allen, 2020).

4.7 Theme 3: Support system challenges affecting facilitation of clinical nursing education

This study has established that facilitation of clinical education is negatively affected by support system challenges. These challenges include shortages of resources such as staff, materials and equipment and time to facilitate clinical education and for clinical allocation of nursing students. Excessive workloads, failure to integrate theory with practice and lack of opportunities for learning further aggravated the situation. Results from the current study indicated that support systems in terms of resources were inadequate.

4.7.1 Shortage of staff

Human resources are most significant in the development of nursing students' knowledge and clinical skills. Allari et al. (2017) in their study stated that the presence of a competent, supportive and collaborative team can help to achieve clinical training goals. Adequate registered nurses are essential for effective facilitation of clinical education. Staff shortages deprive the nursing students of learning; as clinical nursing education is not always facilitated. The large numbers of nursing students enrolled at the training institution make it difficult for registered nurses to provide support, guidance and clinical education to students. As a result, the effectiveness of clinical nursing education and the clinical learning process of students is diminished.

The lecturer/registered nurse − student ratio was viewed as an important factor in rendering effective clinical nursing education. Dealing with smaller numbers of students was expected to improve the integration of theory with practice in clinical nursing education. One of the participants stated that the large number of students hampered clinical nursing education:

> *Because of the groups we are having, large groups and you want to reach to every student, sometimes it's impossible, because if you have so many students sometimes allocated at the same time and you cannot have everybody at the same spot, for instance you have a spot teaching and the students are so many, which you cannot gather to one specific situation. INTERVIEWER 2*

Participants in the study were concerned that the registered nurses and lecturers would not be able to reach their goals of clinical teaching, supervising, guiding and supporting student nurses because of the high number of students. Furthermore, the students would not be exposed to clinical learning opportunities and experiences. A participant remarked:

> *If you have many students, then you may not really reach or achieve the goal you want to reach that specific day and also some students may not be exposed because of that, because of the big number. INTERVIEWER 3*

The high student-registered nurse ratio was reported as a major concern for students, lecturers and registered nurses as it decreased the time available for individual student-lecturer/registered nurse interactions. One participant stated:

> *We are not the only students who will be there, there will be other students from different institutions from the government, from Welwitchia some are also the UNAM student doctors also who need to be taught again. So, the number of students to a registered nurse is, the ratio is very high for the registered. SN/FGD1-P3*

The participants further claimed that there was a shortage of staff in the clinical setting that also impacted negatively on students' clinical education. These findings were consistent with a study done by Courtney-Pratt, Fitzgerald, Ford, Marsden and Marlow (2012) which stated that students were not adequately supervised if there was a shortage of staff. This was because of the conflicting roles of registered nurses who were expected to teach and supervise students in addition to patient care and ward administration. Another study revealed that students might also be used as a pair of hands if there was a shortage of staff and thus be unable to attain their clinical outcome and

negatively impacting on their clinical learning (Msiska et al., 2014). Registered nurses expressed their worries:

> *We are few in the ward; staff shortage is a problem to us. So, is making us difficult to give really enough time to the students." RN/FGD5-P1*
>
> *"We find it sometimes difficult to manage a lot of students since we don't have more registered nurses to train these students that are being allocated here. RN/FGD2-P1*

4.7.2 Inadequate materials and equipment resources to facilitate clinical nursing education

Clinical education can only be conducted successfully if equipment and materials are available for either demonstration of clinical procedures or assessment of the proficiency of a student nurse. Materials refer to both clinical supplies and teaching and learning materials. The availability of necessary equipment and materials promote quality nursing care. According to Lapena-Monux et al. (2016), resources and equipment constraints interfered with the students' acquisition of clinical skills. Participants in this study revealed that there were inadequate resources in the clinical setting necessary to carry out patient care and facilitate clinical education for nursing students during clinical placements. The findings concur with a study done by Rikhotso et al. (2013) that nurses experienced a lack of equipment, material and clinical supplies for clinical education purposes and patient care. This lack of resources was perceived to have numerous consequences for the quality of clinical education. It made effective teaching and learning difficult as students were not able to learn and practise the required skills. In addition, the student nurses missed some opportunities for clinical learning due to a lack of resources that prevented them from performing certain procedures.

As a result of the lack of resources and materials, registered nurses improvised by teaching students in a shortcut manner. Additionally, the students were not taught ideal techniques, resulting in inadequate skill acquisition and competences. Thus, adequate resources at ward level are essential as they maximise learning opportunities and help students obtain the necessary clinical experiences and skills. The study revealed that lack of resources negatively impacted on clinical nursing education and nursing students' learning. This is what they said:

Right now, in this economy we don't have, most of the things are no longer available, so you will end up being taught things using shortcuts and that way you won't learn what is needed. For example, you want to be taught a certain procedure, maybe you'll end up not having about five things on the trolley. They will just tell you; you need this, you need that and this and in actual fact you don't even know how it looks like. SN/FGD1-P4

Another participant claimed that:

The other thing which may hinder the education at the health facilities is lack of resources. You may want to show students a procedure for example, in a proper way, but because of lack of resources, you may find that some of the equipment or some of the materials are not available, then you may be forced to show the thing which is not proper because of that. So, it will be an oral thing rather than a practical thing, if you don't have the necessary equipment or materials. INTERVIEWER 3

Another concern raised by participants was the poor clinical teaching and learning support materials. This included unclear and out-dated procedures in the students' practical logbooks that made it difficult for registered nurses to teach because the topics were not clear and some procedures had been phased out. No clear direction was given about what the students had to be taught and how deeply the content or procedure should be covered. This made it very difficult for the registered nurses to teach the students what they were supposed to be taught. One registered nurse stated:

With my experience with teaching, you find some procedures or topics in the clinical books that are very difficult to teach. There is just a topic, but you cannot really see what they want you to teach. I don't know how should I put it, mmmmh, it's just something broad. RN/FGDI-P5

Another nurse remarked:

Some topics are too broad where you can find like this nurse have teach them different, the way he understands the topic and the other one will teach

them different, then now the student can also get confused because the information they have given about one topic is different. I think they need to clarify just to make it simple for the nurse to understand what they supposed to teach the students. RN/FGDI-P1

4.7.3 Inadequate time to facilitate clinical nursing education

Registered nurses are expected to be well equipped with clinical teaching skills and be prepared to maximise clinical teaching time. The participants in this study indicated that the dual function of registered nurses that included patient care and educational responsibility towards students led to an excessive workload which reduced the time needed to facilitate clinical nursing education and learning. One student stated:

They just tell you that they do not have time to teach because of other duties in the ward. SN/FGD3-P1

The registered nurses remarked:

We don't have enough time to attend such a student. We are really trying our best to help them, but really the time is troubling us. RN/FGD5-P1

Some registered nurses expressed concern that they had insufficient time for students and therefore recommended that lecturers should supervise and provide clinical teaching to students if learning objectives were to be met. One registered nurse stated:

Sometimes you can find the student in your department just finishing their schedule without finishing what they were supposed to be taught in that department because of busyness of the ward. Then it will be difficult to find the time to teach the student because sometimes you wanted to teach them but you don't get the time and the student will just leave your department without finish their schedule. RN/FGD1-P1

Learning in the clinical practice is an important component of nursing education considering that nursing is a practice-based profession. According to Kaphagawani et al. (2013), the quality of nursing education depends largely on the clinical experience that students receive in the clinical

environment. The participants reported that the block system currently used at the training institution did not benefit students because it did not provide sufficient time for them to acquire the necessary clinical skills and competencies that they were supposed to gain in a particular unit. They stated that two weeks' clinical placement was not enough for acquiring skills and competence. The participants further suggested that the duration of clinical placement be extended to one month in order for the students to improve their competencies and self-confidence.

Inadequate time for clinical practice does not enable the students to learn enough before leaving the clinical area. These findings were supported by a study done by Nabolsi et al. (2012) in which students stated that the short duration of clinical placement negatively affected their adaptation and fulfilment of their goals. It also influenced the students' integration into the team and was disruptive as it failed to foster a sense of belonging. One participant narrated her concern as follows:

> *I have notice that, the system we are using is somehow also not benefiting our students. The two weeks in the clinical area, these days that are five five, that's ten days in the clinical area is not enough for the student to catch that experience they are supposed to have in a particular unit. The timeframe in one unit is not enough. INTERVIEWER 2*

Another participant said:

> *I think sometimes they have less time at clinical practice. By less time I mean, they are being delegated one-week PHC, PHC is a big place, so if it's just PHC then we are being forced to delegate a day at every site. And then let me say, the student is delegated in growth monitoring for two days or in EPI for two days, the first two days is the moment they are starting to catch up. Once they are realizing they are getting to know something, then they are being moved. So, I don't think it's enough time for them. RN/FGD1-P4*

4.7.4 Workload

The availability of adequate registered nurses in the clinical placement is crucial for the support, guidance and the creation of learning opportunities for students. According to Higgins, Spencer and Kane (2010), a heavy workload may compromise students' ability to link theory to practice. In circumstances where registered nurses are overworked, they may not be able to follow the professional practices which take a long time, so they may opt for shortcuts. Therefore, heavy workloads for registered nurses may negatively impact on students' clinical learning as provision of patient care was given a higher priority. It was evident from the discussions that sometimes the students were not taught because the registered nurses were too busy with the responsibility of providing patient care. This was illustrated in the following extracts as follows:

> *If the work is too much, then their performance will also be low. Let me say, if they are working in a ward where there is a lot of patients to be transported to theatre, so like pushing patients to theatre every now and then, so that they don't get to do other things, then their performance will also be less, because they won't be interested anymore since there is only to push patients to theatre and bring them back. Just the same work routinely, so it also depends on what's going on in the unit. RN/FGD2-P4*

Another one stated:

> *We don't use to get enough time to teach students because of the workload, work is too much. RN/FGD2-P2*

Participants also shared their concerns that busy wards and too many patients limited the time registered nurses had to carry out their teaching role. These concerns were supported by a study by Rhikoto et al. (2014) that shared the same sentiment. A participant narrated as follows:

> *Sometimes you find the ward is too busy and the number of nurses is not equal to the patients' numbers, so there might be a lot of work in the facility. SN/FGD2-P2*

4.7.5 Lack of integration of theory into practice

Learning takes place when students apply what they have learned in classroom situation and practise it in real life situation. Effective integration of theory with practice is pivotal in ensuring clinical competence among nursing students. However, if there is a disparity between what has been learned in the classroom setting and what is practised in the clinical environment, this constitutes a lack of integration of theory and practice (Kaphagawani et al., 2013). According to Ajani et al. (2011), if this is not minimised, it can create problems because the principles of practice established in curricula are not well aligned with the principles operating in the workplace.

Evidence from literature suggests that there is a gap in integrating theory with practice which has been a concern for a long time in nursing education and has had an impact on students learning clinical skills (Sharif & Masoumi, 2005; Kelly, 2007; Longley et al., 2007 as cited in Kaphagawani et al. (2013)). Students become anxious and confused if they practise something differently from the way they were taught in the classroom (Kaphagawani et al., 2013). Such emotions in students as well as learning in a less than ideal way may negatively affect their clinical performance.

In this study, the participants indicated that a lack of integration between theory and practice exists. According to them, the nurses in the hospital or clinical setting did not follow the standard protocols in providing nursing care. This contradicts the systematic way in which nursing students were taught in the simulation lab at school.

A student mentioned:

> *The challenge that I have experience from the clinical settings is that when us students what we get taught at school sometimes we happen not to be allowed to apply that at practical because of the way we find these nurses doing their things. Ok, at school we are taught the right thing, we should go do this, but then when we come in the unit, the wards, when you try and do the correct thing and then you are told that, this is not how we are doing something. SN/FGD2-P1*

Another student stated:

At the campus they are teaching a different thing and when we go there it's like a different thing also. SN/FGD2-P7

4.7.6 Inadequate opportunities for learning

The creation of learning opportunities is very important for enabling student nurses to integrate theoretical classroom knowledge with the practical skills required to make clinical decisions and provide nursing care. The findings of this study revealed that the clinical learning opportunities were not adequate. Participants expressed concerns that they were competing for procedures due to a high number of students in practice and as a result they missed the learning opportunities. The participants shared their frustrations as follows:

The high number of students is affecting negatively their clinical learning as I have mentioned also previously that when it comes to the exposure, you may not really, is not good to have maybe 20 students around one client for example. Like in, I can give an example of maternity section or units, where some procedures are sensitive and you cannot really have a lot of students around that person, for the student to be exposed to that specific procedure and at the end, it will affect their learning opportunities and experiences. INTERVIEWER 3

The study findings revealed that nursing students missed learning opportunities as they were being sent around to carry out certain tasks. Participants also revealed that some registered nurses did not want the students to learn especially if there was a sensitive case, when they were told to move away. Moreover, some registered nurses were not willing to teach and guide nursing students. This type of practice deprives nursing students of learning opportunities, thereby affecting their skill acquisition. Participants aired their concerns about missed opportunities as follows:

Another participant stated:

Some have refused to give us that guidance and teaching. SN/FGD3-P1

One student said:

> *There are some nurses that do not want students to learn. Sometimes even if there is a case, they will tell you that students should move away, stay away; they don't want you to see what's happening or how they're managing the case. SN/FGD1-P3*

The lack of learning opportunities for nursing students to practise affects the conversion of theoretical knowledge to practice (Lawal et al., 2016). Therefore, adequate learning opportunities for nursing students should be created in order to maximise clinical learning.

4.8 DISCUSSION OF DATA ANALYSIS AND RESULTS [QUANTITATIVE]

The data were analysed using the Statistical Package of Social Sciences (SPSS) version 25 software in order to obtain a picture of the dataset. Frequencies of descriptive variables and percentages related to the data were summarised in order to explain the data. The researcher analysed whether the clinical environment was conducive for learning or not according to the opinions of the respondents. Pearson's chi-squared test was used to compare the frequency distributions and evaluate how likely the observations that were made would be. A self-rating scale was used to rate student nurses' clinical practices. There were eight (8) questions on student practices. A five-point Likert scale was used for each question resulting in a minimum score of 8 and a maximum score of 40. One point on the Likert scale denoted "strongly disagree", two points "disagree", three points "neither agreed nor disagreed", four points "agreed" and five points "strongly agreed". The clinical practices scores were grouped into two categories, namely, bad and good. Respondents with the scores ranging from 8-24 were rated as having bad practices whilst respondents with scores from 25-40 were rated as having good ones.

There were six (6) questions on interpersonal relationships between nursing students and registered nurses with the minimum score of 6 and the maximum 30. The interpersonal relationships were categorised into two groups: poor and good. Respondents with the scores ranging from 6-18 were rated as having poor interpersonal relationships while respondents with scores from 19-30 were rated as having good ones. Data were then summarised and described using descriptive statistics

such percentages and frequencies which were displayed in the form of tables and figures. Cross tabulation was then done to determine the association between socio-demographic characteristics, clinical practices and interpersonal relationships.

The discussion of the results of the study was based on the information obtained from Part 1 (which consisted of Questionnaire 1, designed to obtain data from student nurses) and Part 2 (comprised of Questionnaire 2, concerned with obtaining data from registered nurses). In Part 1, Section A1 dealt with the demographic data of respondents and health facility characteristics, while Section B1 concentrated on the clinical environment. Furthermore, Section C1 looked at the integration of theory and practice whereas Section D1 focussed on opportunities for learning. Section E1 focussed on registered nurses' knowledge and practices while Section F1 concentrated on interpersonal relationships. Respondents were asked to indicate the applicable choice by placing a **(√)** in the column of their choices. The results are discussed below.

4.8.1 Part 1: Demographic data of respondents

The following characteristics of participants were included in this study in order to understand the variables that might influence clinical education of nursing students during clinical attachment. The characteristics were divided into two parts: Part 1 for nursing students and Part 2 for registered nurses. The demographic data for nursing students and health facility characteristics in Part 1 include gender, age, marital status, year of study, type of health facility and type of nursing department as shown in Table 4.4.

Table 4.4: *Demographic characteristics of respondents (N=108)*

Variable	N (%)	Variable	N (%)
Gender		Type of health facility	
Males	13(12.0)	Hospital	94(87.0)
Females	95(88.0)	Health Centre	14(13.0)
Age category		Type of nursing ward/ department	
Younger than 20 years	1(0.9)	Paediatric	2(1.9)
20-24	76(70.4)	Surgical	8(7.4)
25-29	20(18.5)	Casualty	5(4.6)
30-34	6(5.6)	Health Centre	26(24.1)
		Operating	11(10.2)
Marital status		Theatre	5(4.6)
Single/ Never married	101(93.5)	Gynaecology	7(6.5)
Married	7(6.5)	Medical	17(15.7)
Year of study		Psychiatric	23(12.3)
3rd	47(43.5)	Maternity	4(3.7)
4th	61(56.5)	Others	

Gender

Table 4.4 above indicates that the respondents included more females (n=95 (88%)) than males (n=13 (12.0%)). The fact that nursing is still viewed as a predominantly female profession accounts for the high proportion of female respondents in this study.

Respondents' age

Table 4.4 above illustrates that most respondents (n=76 (70.4%)) were aged between 20-24 years, while the age group 25-29 years made up n=20 (18.5%). The age group of 35 years or older made up n=6 (5.6%) whereas those that were younger than 20 years were in the minority (n=1 (0.9%)). This implies that participants were young and in line with the age entry requirement into the Degree of Nursing Science (Clinical) (Honours) programme.

Marital status

The findings as shown in Table 4.4 revealed that there were more single respondents (n=101(93.5%)) compared to n=7 (6.5%) who were married.

Year of study

The study indicates that respondents in the fourth year constituted about n=61 (56.5%) while n=47 (43.5%) were in the third year of study.

Type of health facility

The findings from Table 4.4 revealed that the majority (n=94 (87.0%)) of respondents were attached to hospitals while the minority (n=14 (13.0%)) were attached to health centres.

Type of nursing ward/department

Table 4.4 indicates that n=2 (1.9%) of respondents were allocated to paediatric wards; n=8 (7.4%) to surgical; casualty accounted for n=5 (4.6%); health centres n=26 (24.1%); operating theatres n=11 (10.2%); gynaecology n=5 (4.6%); medical n=7 (6.5%); psychiatric n=17 (15.7%); maternity n=23 (12.3%); and others n=4 (3.7%). The reason for the high number of respondents at health centres was that the students both in their third and fourth years were being allocated to all five (5) health centres in the region. Psychiatry also had a high proportion of respondents because fourth-year students were mainly allocated to psychiatric wards because the mental health module was done in the fourth year of study.

4.8.2 Part 1: Description of main variables

A total number of 108 respondents completed the questionnaire. The nursing students completed the questionnaire in order to rate the clinical environment, integration of theory into practice, opportunities for learning, registered nurses' knowledge and practices and interpersonal relationships between nursing students and registered nurses. There were twelve (12) questions on clinical environment; five (5) for integration of theory with practice; six (6) opportunities for learning as well as for registered nurses' knowledge and practices; and ten (10) for interpersonal relationships.

A five-point Likert scale was used for each question resulting in a minimum score of 12 and a maximum score of 60 for the clinical environment; a minimum score of 5 to a maximum of 25 for integration of theory with practice; a minimum of 6 to a maximum score of 30 for opportunities for learning; a minimum of 6 to a maximum score of 30 for registered nurses' knowledge and practices; and a minimum score of 0 to a maximum score of 50 for interpersonal relationships.

The clinical environment scores were grouped into conducive and non-conducive categories. Respondents with scores ranging from 12-36 were rated as having a non-conducive clinical environment whilst respondents with scores from 37-60 were rated as having a conducive one. Theory to practice integration scores were grouped into poor and good. Respondents with scores ranging from 5-15 were rated as poor while 16-25 scores were rated as good. Concerning learning opportunities, scores were grouped into two categories: adequate and inadequate. Respondents with scores from 1-24 were rated inadequate while scores of 25-40 were scored adequate. For registered nurses' knowledge and practices, the scores were grouped into three categories: low, average and high. Scores of 8-18 were rated low, scores of 19-29 were rated average and scores of 30-40 were rated high. For interpersonal relationships, scores were grouped into poor and good. Respondents who scored 10-30 were rated poor while scores of 31-50 were rated good.

4.8.2.1 Clinical environment

Respondents were asked different questions to assess their knowledge as to whether the clinical environment was conducive or non-conducive to clinical education. Questions were asked about opportunities to gain required skills; whether registered nurses were approachable; and whether students were encouraged to ask questions, amongst others. Table 4.5 below presents the results.

Table 4.5: *Respondents' knowledge of the clinical environment*

Statement	Strongly disagree N (%)	Disagree N (%)	Neither agree nor disagree N (%)	Agree N (%)	Strongly agree N (%)
Item 1: The clinical environment provides students with adequate practical opportunities to gain the required skills	3 (2.8)	7 (6.5)	4 (3.7)	57 (52.8)	37 (34.3)
Item 2: Registered nurses are always approachable to students	9 (8.3)	43 (39.8)	18(16.7)	30 (27.8)	8 (7.4)
Item 3: Registered nurses always encourage students to ask questions	2(1.9)	11(10.2)	27 (25.0)	48 (44.4)	20 (18.5)
Item 4: Registered nurses address students by their names	6 (5.6)	13 (12.0)	23 (21.3)	42 (38.9)	24 (22.2)
Item 5: Registered nurses consider students as part of the health care team	8 (7.4)	7 (6.5)	12(11.1)	63(58.3)	18 (16.7)
Item 6: Registered nurses recognise and appreciate students for what they are doing in practice	5 (4.6)	10 (9.3)	26 (24.1)	50 (46.3)	17 (15.7)
Item 7: Students are accepted as learners rather than as a workforce	3 (2.8)	18 (16.7)	20 (18.5)	40 (37.0)	27 (25.0)
Item 8: Registered nurses are always willing to demonstrate procedures to students	8 (7.4)	21 (19.4)	33 (30.6)	34 (31.5)	12 (11.1)
Item 9: Registered nurses always encourage students to take part in ward activities	2 (1.9)	2 (1.9)	11(10.2)	56 (51.9)	37 (34.3)
Item 10: Registered nurses provide sufficient time to offer clinical teaching to students	10 (9.3)	30 (27.8)	28 (25.9)	35 (32.4)	5 (4.6)
Item 11: The ward has an adequate number of registered nurses to provide clinical teaching to students	14 (13.0)	51 (47.2)	21 (19.4)	16 (14.8)	6 (5.6)
Item 12: There are adequate equipment and supplies in the wards for teaching and learning purposes	15 (13.9)	38 (35.2)	28 (25.9)	19 (17.6)	8 (7.4)

Presented in the table above are the respondents' responses to whether the clinical environment provided nursing students with adequate practical opportunities to gain the required skills. The majority (n=57 (52.8%)) of the respondents agreed that the clinical environment provided opportunities for students to gain the required experiences in order to develop clinical

competencies while n=37 (34.3%) strongly agreed. The findings further revealed that n=7 (6.5%) of the respondents disagreed while n=3 (2.8%) strongly disagreed. About n=4 (3.7%) of the respondents were neutral, in other words they did not agree or disagree that the clinical environment provided opportunities for students to gain the required experiences.

The findings show that a high proportion (n=43 (39.8%)) of respondents disagreed that registered nurses were always approachable, whereas n=9 (8.3%) strongly disagreed. However, n=30 (27.8%) agreed while (n=8 (7.4%) strongly agreed. A further n=18 (16.7%) of respondents neither agreed nor disagreed.

About n=48 (44.4%) of respondents agreed that registered nurses always encouraged nursing students to ask questions, while n=20 (18.5%) strongly agreed and n=27 (25.0%) neither agreed nor disagreed. Meanwhile, n=11 (10.2%) disagreed while n=2 (1.9%) strongly disagreed.

The findings show that n=42 (38.9%) of the respondents agreed that registered nurses addressed nursing students by their names and n=24 (22.2%) strongly agreed. The findings further indicate that n=13 (12.0%) of the respondents disagreed while n=6 (5.6%) strongly disagreed. However, n=23 (21.3%) neither agreed nor disagreed.

The study found that the majority (n=63 (58.3%)) of respondents agreed that registered nurses regarded nursing students as part of the team whereas n=18 (16.7%) strongly agreed. However, n=8 (7.4%) strongly disagreed, and n=7 (6.5%) strongly disagreed. Moreover, n=12 (11.1%) neither agreed nor disagreed.

The results show that a high proportion (n=50 (56.3%)) of the respondents agreed that registered nurses recognised and appreciated nursing students for what they were doing in practice while n=17 (15.7%) strongly agreed. The findings further revealed that n=10 (9.3%) of the respondents disagreed while n=5 (4.6%) strongly disagreed. About n=26 (24.1%) of the respondents were neutral, in other words they did not agree or disagree.

The study found that n=40 (37.0%) of the respondents agreed that nursing students were accepted as learners rather than as part of the workforce while n=27 (25.0%) strongly agreed. In contrast, n=18 (16.7%) respondents disagreed, while n=3 (2.8%) strongly disagreed and n=20 (18.5%) neither agreed nor disagreed.

Table 4.5 above shows that n=34 (31.5%) of respondents agreed that registered nurses were always willing to demonstrate procedures to nursing students whereas n=12 (11.1%) strongly agreed. About n=21 (19.4%) disagreed while 7.4% (n=8) strongly disagreed. Moreover, n=33 (30.6%) of the respondents neither agreed nor disagreed.

The results indicate that the majority (n=56 (51.9%)) of the respondents agreed that the registered nurses always encouraged nursing students to take part in ward activities whereas n=37 (34.3%) strongly agreed. The findings further revealed that n=2 (1.9%) of the respondents disagreed while n=2 (1.9%) strongly disagreed. About n=11 (10.2%) of the respondents were neutral.

About n=35 (32.4%) of respondents agreed that registered nurses had sufficient time to offer clinical teaching to nursing students, while n=5 (4.6%) strongly agreed and n=28 (25.9%) neither agreed nor disagreed. However, n=30 (27.8%) disagreed while n=10 (9.3%) strongly disagreed.

The findings revealed that the majority n=51 (47.2%) of respondents disagreed that the wards had an adequate number of registered nurses to provide clinical teaching to nursing students whereas n=14 (13.0%) disagreed. However, n=16 (14.8%) respondents agreed, while n=6 (5.6%) strongly agreed and n=21 (19.4%) were neutral.

The results show that n=38 (35.2%) of respondents disagreed that there were adequate equipment and supplies available in the wards for the teaching and learning purposes of students, whereas n=15 (13.9%) strongly disagreed. Nonetheless, n=19 (17.6%) agreed, while n=8 (7.4%) strongly disagreed and n=28 (25.9%) respondents were neutral.

The variables were scored and the clinical environment were categorised into two groups: conducive clinical environment and non-conducive clinical environment. Overall, the findings indicate that the clinical environment was conducive for learning. The results are presented in Table 4.6 below.

Table 4.6: *Total scores for clinical environment*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22	1	.9	.9	.9
	23	1	.9	.9	1.9
	26	1	.9	.9	2.8
	27	2	1.9	1.9	4.6
	30	1	.9	.9	5.6
	31	4	3.7	3.7	9.3
	32	3	2.8	2.8	12.0
	33	3	2.8	2.8	14.8
	34	5	4.6	4.6	19.4
	35	3	2.8	2.8	22.2
	36	5	4.6	4.6	26.9
	37	8	7.4	7.4	34.3
	38	6	5.6	5.6	39.8
	39	3	2.8	2.8	42.6
	40	5	4.6	4.6	47.2
	41	5	4.6	4.6	51.9
	42	9	8.3	8.3	60.2
	43	8	7.4	7.4	67.6
	44	5	4.6	4.6	72.2
	45	3	2.8	2.8	75.0
	46	7	6.5	6.5	81.5
	47	1	.9	.9	82.4
	48	3	2.8	2.8	85.2
	49	4	3.7	3.7	88.9
	50	4	3.7	3.7	92.6
	51	3	2.8	2.8	95.4
	53	2	1.9	1.9	97.2
	55	1	.9	.9	98.1
	60	2	1.9	1.9	100.0
	Total	108	100.0	100.0	

The scores presented in the table above were grouped in order to determine whether the clinical environment was conducive or non-conducive for learning. Respondents scoring 12-36 were rated

to be in a non-conducive clinical environment, while scores of 37-60 were rated as being in a conducive clinical environment. Table 4.7 below indicates the clinical environment categories.

Table 4.7: *Clinical environment categories*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-conducive	29	26.9	26.9	26.9
	Conducive	79	73.1	73.1	100.0
	Total	108	100.0	100.0	

As demonstrated in the table above, n=79 (73.1%) of the respondents indicated that the clinical environment was conducive to learning compared to n=29 (26.9%) of the respondents who indicated that the clinical environment was non-conducive to learning.

4.8.2.2 Integration of theory into practice

Respondents were asked five (5) questions in order to determine whether there was integration between theory and practice. These results are indicated in Table 4.8 below.

Table 4.8: *Respondents' knowledge on the integration of theory into practice*

Statement	Strongly disagree N (%)	Disagree N (%)	Neither agree nor disagree N (%)	Agree N (%)	Strongly agree N (%)
1. What was learned in classroom is practised in the ward	4 (3.7)	12 (11.1)	12 (11.1)	57 (52.8)	23 (21.3)
2. Theory learned in classroom is reinforced in the ward	1(0.9)	7 (6.5)	16 (14.8)	59 (54.6)	25 (23.1)
3. There is a conflict between procedures taught in the simulation and real situations in the ward	8 (7.4)	21 (19.4)	3 (2.8)	39 (36.1)	37 (34.3)
4. Registered nurses are able to integrate theoretical knowledge into practice	2 (1.9)	6 (5.6)	10 (9.3)	68 (63.0)	22 (20.4)
5. Registered nurses assist student nurses to integrate what was taught in class with practice	2 (1.9)	5 (4.6)	14 (13.0)	68 (63.0)	19 (17.6)

The findings as indicated in Table 4.8 showed that a high proportion (n=57 (52.8%)) of respondents agreed that what was taught in the classroom was practised in the ward and n=23 (21.3%) strongly agreed. By contrast, a small proportion (n=4 (3.7%)) strongly disagreed while n=12 (11.1%) disagreed. However, n=12 (11.1%) neither agreed nor disagreed.

Furthermore, the majority of the respondents (n=59 (54.6%)) agreed that theory learned in the classroom was reinforced in the ward in addition to n=25 (23.1%) who strongly agreed. A minority (n=1 (0.9%)) of respondents strongly disagreed and 6.5% (n=7) disagreed, while n=16 (14.8%) neither agreed nor disagreed.

However, about n=39 (36.1%) of respondents agreed that there was a conflict between procedures taught in the simulation and real situations in the ward while n=37 (34.3%) strongly agreed. About n=21 (19.4%) disagreed while n=8 (7.4%) strongly disagreed and a minority (n=3 (2.8%)) of respondents neither agreed nor disagreed.

A high proportion (n=68 (63.0%)) of respondents agreed that registered nurses were able to integrate theoretical knowledge with practice and n=22 (20.4%) strongly agreed. Moreover, n=6 (5.6%) disagreed while n=2 (1.9%) strongly disagreed. However, n=10 (9.3%) of respondents neither agreed nor disagreed.

The majority (n=68 (63.0%)) of respondents agreed that registered nurses assisted nursing students to integrate what was taught in class with practice while n=19 (17.6%) strongly agreed and n=14 (13.0%) were neutral. A minority (n=2 (1.9%)) strongly disagreed while n=5 (4.6%) disagreed.

The total scores were grouped into two categories. Respondents were rated with poor integration of theory with practice and good integration of theory with practice. The total scores are presented in Table 4.9 below.

Table 4.9: Total scores for theory to practice integration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11	1	.9	.9	.9
	12	3	2.8	2.8	3.7
	13	6	5.6	5.6	9.3
	14	8	7.4	7.4	16.7
	15	4	3.7	3.7	20.4
	16	6	5.6	5.6	25.9
	17	15	13.9	13.9	39.8
	18	26	24.1	24.1	63.9
	19	9	8.3	8.3	72.2
	20	10	9.3	9.3	81.5
	21	8	7.4	7.4	88.9
	22	7	6.5	6.5	95.4
	23	3	2.8	2.8	98.1
	24	2	1.9	1.9	100.0
	Total	108	100.0	100.0	

The scores presented in the table above were categorised and used to rate the integration of theory with practice. Respondents with scores of 5-15 were categorised as experiencing poor integration of theory with practice while respondents with scores of 16-25 were rated as experiencing good integration of theory with practice. These categories are presented in the table below.

Table 4.10: *Theory to practice integration*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	22	20.4	20.4	20.4
	Good	86	79.6	79.6	100.0
	Total	108	100.0	100.0	

From the table above, it is evident that the majority (n=86 (79.6%)) of the respondents indicated that there was good integration of theory with practice while a minority (n=22 (20.4%)) indicated that integration of theory with practice was poor.

4.8.2.3 Opportunities for learning

Respondents were asked various questions to determine whether there were opportunities for clinical learning. Eight (8) different questions were asked in order to determine whether the learning opportunities were adequate or inadequate. Table 4.11 below presents the results.

Table 4.11: *Respondents knowledge on opportunities for learning*

	Statement	Strongly disagree N (%)	Disagree N (%)	Neither agree nor disagree N (%)	Agree N (%)	Strongly agree N (%)
1.	Registered nurses give nursing students clear ideas of what is expected of them during clinical practice	1 (0.9)	10 (9.3)	14 (13.0)	59 (54.6)	24 (22.2)
2.	Nursing students are made to concentrate on basic tasks e.g., Bed bath, taking vital signs, transportation and being sent to the laboratory	5 (4.6)	5 (4.6)	9 (8.3)	28 (25.9)	61 (56.5)
3.	Registered nurses allow nursing students to be actively involved in ward activities	2 (1.9)	1 (0.9)	10 (9.3)	63 (58.3)	32 (29.6)
4.	Registered nurses provide enough opportunity to nursing students for independent practice	6 (5.6)	17 (15.7)	24 (22.2)	56 (51.9)	5 (4.6)
5.	Registered nurses provide opportunities to student nurses to do return demonstrations	2 (1.9)	17 (15.7)	20 (18.5)	51 (47.2)	18 (16.7)
6.	Registered nurses observe nursing students' performances frequently	3 (2.8)	19 (17.6)	17 (15.7)	49 (45.4)	20 (18.5)
7.	Registered nurses correct nursing students' mistakes without belittling them	15 (13.9)	27 (25.0)	27 (25.0)	28 (25.9)	11 (10.2)
8.	The duration of the nursing students s' allocation in the department is sufficient to meet the learning outcomes	39 (36.1)	34 (31.5)	13 (12.0)	18 (16.7)	4 (3.7)

The results in Table 4.11 above reveal that n=59 (54.6%) of respondents agreed that registered nurses gave nursing students a clear idea of what was expected of them during clinical practice and n=24 (22.2%) strongly agreed, while n=14 (13.0%) neither agreed nor disagreed. On the contrary, n=10 (9.3%) disagreed while n=1 (0.9%) strongly disagreed.

The findings as revealed above show that n=61 (56.5%) of respondents strongly agreed that nursing students were made to concentrate on basic tasks and n=28 (25.9%) agreed. However, a small proportion (n=5 (4.6%)) of respondents disagreed and n=5 (4.6%) strongly disagreed. Meanwhile n=9 (8.3%) of respondents were neutral.

The results show that n=63 (58.3%) of respondents agreed that registered nurses allowed nursing students to be actively involved in ward activities, whereas n=32 (29.6%) strongly agreed. Nonetheless, n=2 (1.9%) strongly disagreed, while n=1 (0.9%) disagreed, and n=10 (9.3%) respondents were neutral.

The findings indicate that the majority (n=56 (51.9%)) of the respondents agreed that registered nurses provided enough opportunities to nursing students for independent practice and n=5 (4.6%) strongly agreed, while n=24 (22.2%) neither agreed nor disagreed. A minority (n=6 (5.6%)) of respondents strongly disagreed while n=17 (15.7%) disagreed.

A high proportion (n=51 (47.2%)) of respondents agreed that registered nurses provided enough opportunities to nursing students to do return demonstrations and n=18 (16.7%) strongly agreed, in contrast to n=17 (15.7%) of respondents who disagreed while n=2 (1.9%) strongly disagreed. A number (n=20 (18.5%)) of respondents neither agreed nor disagreed that registered nurses provided opportunities to students to do return demonstrations.

The findings as revealed above show that n=49 (45.4%) of respondents agreed that registered nurses observed nursing students' performances frequently, while n=20 (18.5%) strongly agreed. Moreover, n=19 (17.6%) disagreed, while n=2 (2.8%) strongly disagreed. However, n=17 (15.7%) of respondents were neutral.

About n=28 (25.9%) of respondents agreed that registered nurses corrected nursing students' mistakes without belittling them, while n=11 (10.2%) of respondents strongly agreed. Moreover, n=27 (25.0%) of respondents disagreed, whereas n=15 (13.9%) strongly disagreed. A proportion of n=27 (25.0%) were neutral.

The study found that the majority (n=39 (36.1%)) of respondents strongly disagreed that the duration of nursing students' allocation in the department was sufficient to meet the learning outcomes, whereas n=34 (31.5%) disagreed. A small proportion (n=4 (3.7%)) of respondents strongly agreed and n=18 (16.7%) agreed, but n=13 (12.0%) neither agreed nor disagreed.

The total scores on opportunities for learning were grouped into two categories. Respondents were rated according to whether they felt that learning opportunities were adequate or not. The total scores are presented in the table below.

Table 4.12: *Total scores for opportunities of learning*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12	1	.9	.9	.9
	14	1	.9	.9	1.9
	15	1	.9	.9	2.8
	16	2	1.9	1.9	4.6
	17	1	.9	.9	5.6
	18	2	1.9	1.9	7.4
	19	2	1.9	1.9	9.3
	20	3	2.8	2.8	12.0
	21	4	3.7	3.7	15.7
	22	7	6.5	6.5	22.2
	23	8	7.4	7.4	29.6
	24	9	8.3	8.3	38.0
	25	11	10.2	10.2	48.1
	26	11	10.2	10.2	58.3
	27	12	11.1	11.1	69.4
	28	10	9.3	9.3	78.7
	29	7	6.5	6.5	85.2
	30	4	3.7	3.7	88.9
	31	1	.9	.9	89.8
	32	1	.9	.9	90.7
	33	7	6.5	6.5	97.2
	34	2	1.9	1.9	99.1
	36	1	.9	.9	100.0
	Total	108	100.0	100.0	

The scores presented in Table 4.12 above were categorised and used to rate the opportunities for learning. Respondents with scores of 1-24 were rated as having inadequate learning opportunities, while respondents with scores of 25-40 were categorised as having adequate ones. These categories are presented in Table 4.13 below.

Table 4.13: *Categories of learning opportunities*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Inadequate	41	38.0	38.0	38.0
	Adequate	67	62.0	62.0	100.0
	Total	108	100.0	100.0	

Table 4.13 above revealed that a higher proportion (n=67 (62.0%)) of respondents indicated that there were adequate learning opportunities and n=41 (41.0%) of the respondents indicated that learning opportunities were inadequate.

4.8.2.4 Registered nurses' knowledge and practices

The registered nurses' knowledge and practices were also assessed. Eight (8) different questions were asked in order to assess the knowledge and practices of registered nurses. Below are the results as presented in Table 4.14.

Table 4.14: *Respondents' opinion of registered nurses' knowledge and practices*

Statement	Strongly disagree N (%)	Disagree N (%)	Neither agree nor disagree N (%)	Agree N (%)	Strongly agree N (%)
1. Registered nurses are knowledgeable and skillful in clinical procedures	3 (2.8)	5 (4.6)	14 (13.0)	68 (63.0)	18 (16.7)
2. Registered nurses take shortcuts when performing procedures	7 (6.5)	19 (17.6)	21 (19.4)	36 (33.3)	25 (23.1)
3. Registered nurses use different teaching approaches/methods during clinical teaching	2 (1.9)	7 (6.5)	8 (7.4)	69 (63.9)	22 (20.4)
4. Registered nurses are always willing to teach nursing students during clinical placement	6 (5.6)	28 (25.9)	34 (31.5)	34 (31.5)	6 (5.6)
5. Registered nurses are committed to clinical teaching	7 (6.5)	30 (27.8)	33 (30.6)	29 (26.9)	9 (8.3)
6. Registered nurses shift their teaching responsibility onto the lecturers	8 (7.4)	29 (26.9)	26 (24.1)	31 (28.7)	14 (13.0)
7. Registered nurses are not interested in teaching nursing students	13 (12.0)	37 (34.3)	27 (25.0)	23 (21.3)	8 (7.4)
8. Registered nurses supervise nursing students' clinical activities during clinical attachment	3 (2.8)	8 (7.4)	22 (20.4)	55 (50.9)	20 (18.5)

Table 4.14 above shows the majority (n=68 (63.0%)) of respondents were in agreement that registered nurses were knowledgeable and skilful in clinical procedures and n=18 (16.7%) strongly agreed. However, a small proportion (n=3 (2.8%)) strongly disagreed while n=5 (4.6%) disagreed. A further group (n=14 (13.0%)) neither agreed nor disagreed.

A high proportion (n=36 (33.3%)) of respondents agreed that registered nurses took shortcuts when performing procedures and n=25 (23.1%) strongly agreed. However, a small proportion (n=7 (6.5%)) strongly disagreed whereas n=19 (17.6%) disagreed. Moreover, n=21 (19.4%) of respondents were neutral.

The findings show that n=69 (63.9%) of respondents agreed that registered nurses used different teaching approaches/methods during clinical teaching, while n=22 (20.4%) strongly agreed**.** Nevertheless, n=2 (1.9%) of respondents strongly disagreed whilst n=7 (6.5%) disagreed and n=8 (7.4%) of respondents neither agreed nor disagreed.

A proportion of respondents (n=34 (31.5%)) agreed that registered nurses were always willing to teach student nurses during clinical placement while n=6 (5.6%) strongly agreed. Surprisingly, a high proportion (n=34 (31.5%)) of respondents neither agreed nor disagreed that registered nurses were always willing to teach students. In addition, n=28 (25.9%) of the respondents disagreed while n=6 (5.6%) strongly disagreed.

The findings reveal that n=33 (30.6%) of respondents neither agreed nor disagreed that registered nurses were committed towards clinical teaching, while n=30 (27.8%) respondents disagreed and n=7 (6.5%) strongly disagreed. Nonetheless, n=29 (26.9%) of respondents agreed while n=9 (8.3%) strongly agreed.

The results showed that n=31 (28.7%) of respondents agreed that registered nurses shifted teaching responsibilities onto lecturers, while n=14 (13.0%) strongly agreed and n=26 (24.1%) were neutral. Nonetheless, n=29 (26.9%) of the respondents disagreed and n=8 (7.4%) strongly disagreed.

The findings revealed that n=37 (34.3%) of respondents disagreed that registered nurses were not interested in teaching nursing students, while n=13 (12.0%) strongly disagreed. A small proportion (n=8 (7.4%)) of respondents strongly agreed and n=23 (21.3%) agreed. Meanwhile, n =27 (25.0%) of the respondents were neutral.

A high percentage (n=55 (50.9%)) of respondents agreed that registered nurses supervised nursing students' clinical activities during clinical attachment, whereas n=20 (18.5%) strongly agreed. However, a small percentage n=3 (2.8%) of respondents strongly disagreed, while n=8 (7.4%) disagreed. Nonetheless, n=22 (20.4%) respondents neither agreed nor disagreed.

The above discussion dealt with the participants' responses to the questions concerning registered nurses' knowledge and practices in clinical education. These responses were scored in order to rate them. The knowledge and practices scores were grouped into three categories. Respondents with scores ranging from 8-18 were rated to have low levels of knowledge and practices; scores ranging from 19-29 were rated to have average levels of knowledge and practices, while respondents with scores ranging from 30-40 were rated to have high levels of knowledge and practices. Table 4.15 below shows the total knowledge and practices scores.

Table 4.15: *Total scores of registered nurses' knowledge and practice*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12	1	.9	.9	.9
	13	1	.9	.9	1.9
	18	5	4.6	4.6	6.5
	19	6	5.6	5.6	12.0
	20	6	5.6	5.6	17.6
	21	9	8.3	8.3	25.9
	22	5	4.6	4.6	30.6
	23	10	9.3	9.3	39.8
	24	15	13.9	13.9	53.7
	25	7	6.5	6.5	60.2
	26	14	13.0	13.0	73.1
	27	3	2.8	2.8	75.9
	28	11	10.2	10.2	86.1
	29	6	5.6	5.6	91.7
	30	3	2.8	2.8	94.4
	31	2	1.9	1.9	96.3
	32	1	.9	.9	97.2
	33	2	1.9	1.9	99.1
	40	1	.9	.9	100.0
	Total	108	100.0	100.0	

Table 4.16: *Total knowledge and practice categories*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	7	6.5	6.5	6.5
	Average	92	85.2	85.2	91.7
	High	9	8.3	8.3	100.0
	Total	108	100.0	100.0	

The findings in Table 4.16 reveal that the majority (n=92 (82.5%)) of respondents indicated that registered nurses had average levels of knowledge and practices compared to a minority of respondents (n=7(6.5%)) who indicated that registered nurses had low levels of knowledge and practices. Nonetheless, n=9(8.3%) of the respondents indicated that registered nurses had high levels of knowledge and practices of clinical education.

4.8.2.5 Interpersonal relationships

Respondents were asked different questions to determine whether the interpersonal relationships between registered nurses and student nurses were good or poor. Table 4.17 below presents the results.

Table 4.17: *Respondents' views of interpersonal relationships*

	Statement	Strongly disagree N (%)	Disagree N (%)	Neither agree nor disagree N (%)	Agree N (%)	Strongly agree N (%)
1.	There is a positive atmosphere between nursing students and registered nurses in the ward	6 (5.6)	13 (12.0)	28 (25.9)	53 (49.1)	8 (7.4)
2.	Registered nurses communicate effectively with nursing students	3 (2.8)	22 (20.4)	31 (28.7)	43 (39.8)	9 (8.3)
3.	Registered nurses maintain a professional relationship with nursing students	2 (1.9)	15 (13.9)	20 (18.5)	54 (50.0)	17 (15.7)
4.	Registered nurses victimise nursing students based on the training institution where they are coming from	7 (6.5)	8 (7.4)	9 (8.3)	35 (32.4)	49 (45.4)
5.	Registered nurses label nursing students on the basis of their clinical performances	5 (4.6)	16 (14.8)	17 (15.7)	44 (40.7)	26 (24.1)
6.	Registered nurses disrespect nursing students during clinical attachment	14 (13.0)	35 (32.4)	34 (31.5)	19 (17.6)	6 (5.6)
7.	Registered nurses embarrass nursing students in front of patients and other colleagues in the ward	13 (12.0)	17 (15.7)	27 (25.0)	30 (27.8)	21 (19.4)
8.	Some registered nurses are stressed and take out their anger on nursing students	6 (5.6)	13 (12.0)	26 (24.1)	36 (33.3)	27 (25.0)
9.	Registered nurses compare nursing students from different training institutions	3 (2.8)	2 (1.9)	8 (7.4)	40 (37.0)	55 (50.9)
10.	Registered nurses ignore nursing students' requests to support and guide them during clinical placement	6 (5.6)	14 (13.0)	32 (29.6)	31 (28.7)	25 (23.1)

The findings from Table 4.17 reveal that n=53 (49.1%) of respondents agreed that there was a positive atmosphere between nursing students and registered nurses in the ward, while n=8 (7.4%) strongly agreed. However, n=13 (12.0%) of the respondents disagreed and n=6 (5.6%) strongly disagreed. A proportion of n=28 (25.9%) of respondents were neutral.

The results indicate that n=43 (39.8%) of respondents agreed that registered nurses communicated effectively with nursing students and n=9 (8.3%) strongly agreed, though n=31 (28.7%) neither agreed nor disagreed. Meanwhile, n=22 (20.4%) disagreed, while n=3 (2.8%) strongly disagreed.

A large percentage of respondents (n=54 (50.0%)) agreed that registered nurses maintained a professional relationship with nursing students; however, a smaller percentage (n=2 (1.9%)) of respondents disagreed. About n=17 (15.7%) of the respondents strongly agreed that registered nurses maintained a professional relationship with nursing students, while n=15 (13.9%) disagreed. Moreover, n=20 (18.5%) neither agreed nor disagreed.

The study reveals that n=49 (45.4%) of the respondents strongly agreed that registered nurses victimised nursing students based on the training institution they came from, while 32.4% agreed. Contrary to that, n=8 (7.4%) disagreed and n=7 (6.5%) strongly disagreed. However, n=9 (8.3%) or the respondents were neutral.

The results indicate that n=44 (40.7%) of the respondents agreed that registered nurses labelled nursing students on the basis of their clinical performances and n=26 (24.1%) strongly agreed, while n=17 (15.7%) neither agreed nor disagreed. Moreover, n=5 (4.6%) strongly disagreed and n=16 (14.8%) disagreed.

The results show that n=35 (32.4%) of respondents disagreed that registered nurses disrespected nursing students during clinical attachment, while n=14 (13.0%) strongly disagreed and n=34 (31.5%) were neutral. Nonetheless, n=19 (17.6%) of the respondents agreed and n=6 (5.6%) strongly agreed.

About n=30 (27.8%) respondents agreed that the registered nurses embarrassed nursing students in front of patients and other colleagues in the ward, while n=21 (19.4%) respondents strongly agreed. Moreover, n=13 (12.0%) respondents strongly disagreed, and n=17 (15.7%) disagreed. A proportion of n=27 (25.0%) neither agreed nor disagreed.

A high proportion (n=36 (33.3%)) of respondents agreed that registered nurses were stressed and took out their anger on nursing students and n=27 (25.0%) strongly agreed, while n=6 (5.6%) of respondents disagreed and n=13 (12.0%) disagreed. About n=26 (24.1%) of respondents neither agreed nor disagreed.

The study reveals that the majority of respondents (n=55 (50.9%)) strongly agreed that the registered nurses compared nursing students from different training institution, while n=40 (37.0%) agreed. On the other hand, n=3 (2.8%) respondents strongly disagreed and n=2 (1.9%) disagreed. However, n=8 (7.4%) respondents were neutral.

The results show that n=31 (28.7%) respondents agreed that registered nurses ignored nursing students when requested to support and guide them during clinical placement, while n=25 (23.1%) strongly agreed and n=32 (29.6%) were neutral. Nonetheless, n=14 (13.0%) respondents disagreed and n=6 (5.6%) strongly disagreed.

The respondents' responses to the questions related to interpersonal relationships between nursing students and registered nurses are presented above. The responses were scored in order to rate the respondents' responses to questions concerning interpersonal relationships between nursing students and registered nurses. Interpersonal relationships were grouped into two categories: respondents with the scores ranging from 10-30 were rated to have poor levels of interpersonal relationships; while the scores ranging from 31-50 were rated as having good levels. Table 4.18 below presents the total interpersonal relationship scores.

Table 4.18: *Interpersonal relationships*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13	2	1.9	1.9	1.9
	15	1	.9	.9	2.8
	16	2	1.9	1.9	4.6
	17	3	2.8	2.8	7.4
	18	1	.9	.9	8.3
	19	4	3.7	3.7	12.0
	20	5	4.6	4.6	16.7
	21	2	1.9	1.9	18.5
	22	5	4.6	4.6	23.1
	23	5	4.6	4.6	27.8
	24	6	5.6	5.6	33.3
	25	7	6.5	6.5	39.8
	26	5	4.6	4.6	44.4
	27	10	9.3	9.3	53.7
	28	7	6.5	6.5	60.2
	29	7	6.5	6.5	66.7
	30	5	4.6	4.6	71.3
	31	4	3.7	3.7	75.0
	32	4	3.7	3.7	78.7
	33	5	4.6	4.6	83.3
	34	5	4.6	4.6	88.0
	35	4	3.7	3.7	91.7
	36	3	2.8	2.8	94.4
	37	1	.9	.9	95.4
	38	1	.9	.9	96.3
	39	1	.9	.9	97.2
	47	2	1.9	1.9	99.1
	50	1	.9	.9	100.0
	Total	108	100.0	100.0	

Table 4.19: *Total interpersonal relationships categories*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	77	71.3	71.3	71.3
	Good	31	28.7	28.7	100.0
	Total	108	100.0	100.0	

Table 4.19 above demonstrates that the majority (n=77 (71.3%)) of the respondents indicated that there were poor interpersonal relationships between nursing students and registered nurses, while a minority of respondents (n=31 (28.7%)) indicated that good interpersonal relationships existed.

4.8.3 Association between demographic characteristics and knowledge

Data were further analysed into cross tabulation with the Pearson chi-squared p-value test. Identified key variables were: socio-demographic characteristics; clinical environment; theory to practice integration; learning opportunities; knowledge and practices; and interpersonal relationships. The association between some of the participants' demographic characteristics, clinical environment, integration of theory to practice, learning opportunities, registered nurses' level of knowledge and practices as well as interpersonal relationships was analysed and the Pearson chi-squared test was applied to determine the p-value. Table 4.20 presents the results.

Table 4.20: *Association between the clinical environment with students' demographic characteristics*

Demographic characteristics		Level of the clinical environment		Chi-squared P-Value
		Non-conducive N (%)	Conducive N (%)	
Gender	Male	3 (23.1)	10 (76.9)	0.743
	Female	26 (27.4)	69 (72.6)	
Age	Younger than 20	0 (0.0)	1 (100.0)	0.536
	20 - 24	21 (27.6)	55 (72.4)	
	25 - 29	6 (30.0)	14 (70.0)	
	30 - 34	2 (40.0)	3 (60.0)	
	35 or older	0 (0.0)	6 (100.0)	
Marital Status	Single (Never married)	28(27.7)	73 (72.3)	0.438
	Married	1(14.3)	6(85.7)	
	Divorced	0 (0.0)	0 (0.0)	
	Widow/Widower	0 (0.0)	0 (0.0)	
Year of study	3rd	15 (31.9)	32 (68.1)	0.440
	4th	14 (23.7)	45 (76.3)	
Health Facility	Hospital	25 (26.6)	69 (73.4)	0.876
	Health Centre	4 (28.6)	10 (71.4)	
	Clinic	0 (0.0)	0 (0.0%)	
Ward of attachment	Paediatric	0 (0.0)	2 (100.0)	0.047
	Surgical	3 (37.5)	5 (62.5)	
	Casualty	1 (20.0)	4 (80.0)	
	Health Centre/Clinic	10 (38.5)	16 (61.5)	
	Operating Theatre	1 (9.1)	10 (90.9)	
	Gynaecology	1 (20.0)	4 (80.0)	
	Medical	4 (57.1)	3 (42.9)	
	Psychiatric	1 (5.9)	16 (94.1)	
	Maternity	5 (21.7)	18 (78.3)	
	Other	3 (75.0)	1 (25.0)	

The association between each respondent's demographic characteristics and their clinical environment is discussed below:

Gender and clinical environment

Most of the female respondents (n=69 (72.6%) reported that they experienced a conducive clinical environment compared to male respondents (n=10 (76.9%)). A few female respondents (n=26 (27.4%)) reported a non-conducive clinical environment while n=3 (23.1%) male respondents did. The p-value=0.743 indicated that there was no significant association between the respondents' gender and the clinical environment set up.

Age and clinical environment

Respondents aged 20-24 years (n=55 (72.4%)) reported that the clinical environment was conducive compared to n=21 (27.6%) who reported that the clinical environment was non-conducive. Furthermore, respondents aged 25 - 29 years (n=14 (70.0%)) reported that the clinical environment was conducive while n=6 (30.0%) respondents in the same age category reported that the level of clinical environment was non-conducive. However, respondents aged 30 – 34 years (n=3 (60.0%)) also reported that the clinical environment was conducive and n=2 (40.0%) of respondents reported that they found the clinical environment non-conducive. Nonetheless, respondents aged 35 years or older (n=6 (100.0%)) reported a conducive clinical environment. Besides that, respondents younger than 20 years (n=1 (100.0%)) also reported a conducive clinical environment. With the p-value of 0.536, it was revealed that respondents' age was not significantly associated with their experience of the clinical environment.

Marital status and clinical environment

Many respondents who were single (n=73 (72.3%)) revealed that the clinical environment was conducive compared to n=28(27.7%) who stated that the clinical environment was non-conducive. Respondents who were married (n= 6(85.7%)) were noted to have reported that the clinical environment was conducive, whereas n=1(14.3%) revealed that the clinical environment was non-conducive. However, there was no significant association between respondents' marital status and their experience of the overall clinical environment, as shown by p= 0.438.

Year of study and clinical environment

Many respondents in the third year of study (n=32 (68.1%)) reported a conducive clinical environment while few respondents (n=15 (31.9%)) reported a non-conducive clinical environment. Moreover, the majority of respondents in the fourth year of study (n=45 (76.3%)) revealed that the clinical environment was conducive compared to n=14 (23.7%) who stated that the clinical environment was non-conducive. The p-value=0.440 indicated that there was no significant association between respondents' year of study and their experience of the clinical environment.

Health facility and clinical environment

Many respondents who were working at the hospital (n=69 (73.4%)) reported that the clinical environment was conducive, whilst n= 25 (26.6%) respondents revealed that the clinical environment was non-conducive. Many respondents from the health centres (n=10 (71.4%)) reported a conducive clinical environment and n=4 (28.6%) reported that the level of clinical environment was non-conducive. This association between respondents' particular health facility and the way they experienced the clinical environment was however not significant, with a p=0.876.

Ward of attachment and clinical environment

All n=2 (100.0%) respondents in the paediatric ward reported that they experienced a conducive clinical environment. Many respondents (n=5 (62.5%)) in the paediatric ward noted a conducive clinical environment compared to n=3 (37.5%) who reported that the clinical environment was non-conducive. Furthermore, n=4 (80.0%) respondents in the casualty department reported that the clinical environment was conducive while n=1 (20.0%) noted that it was non-conducive. Meanwhile, n=16 (61.5%) respondents at health centres/clinics reported a conducive clinical environment in contrast to n=10 (38.5%) respondents who reported a non-conducive one. A high proportion of respondents (n=10 (90.9%)) in the operating theatre indicated that the clinical environment was conducive whilst n=1 (9.1%) of respondents reported that the clinical environment was non-conducive. Moreover, respondents (n=4 (80.0%)) in the gynaecological ward revealed that the clinical environment was conducive while a small proportion of respondents

(n=1 (20.0%)) in the same ward indicated that the clinical environment was non-conducive. Many respondents (n=4 (57.1%)) in the medical ward indicated that the clinical environment was non-conducive compared to n=3 (42.9%) respondents in a similar ward who showed that the clinical environment was conducive. The majority (n=16 (94.1%)) of respondents in the psychiatric ward reported that the clinical environment was conducive and few respondents (n=1 (5.9%)) indicated that the clinical environment was non-conducive. Besides that, n=18 (78.3%) respondents in the maternity ward revealed that the clinical environment was conducive, while n=5 (21.7%) revealed that it was non-conducive. Lastly, n=3 (75.0%) respondents from other wards/ department indicated that the clinical environment was non-conducive compared to n=1 (25.0%) respondents who reported that it was. Hence, the p-value=0.047 indicated that there was a significant association between the respondents' ward of attachment and their experience of the clinical environment, implying that a relationship between ward of attachment and the clinical environment did indeed exist.

4.8.4 Association between theory to practice integration with students' demographic characteristics

The association between the demographic characteristics and the respondents' practices through cross tabulation and chi-squared test was done to find out the p-value. Table 4.21 below presents the findings.

Table 4.11: *Association between theory to practice integration with students' demographic characteristics*

Demographic characteristics		Level of theory to practice integration		Chi-squared P-Value
		Poor N (%)	Good N (%)	
Gender	Male	1 (7.7)	12 (92.3)	0.226
	Female	21 (22.1)	74 (77.9)	
Age	Younger than 20	1 (100.0)	0 (0.0)	0.149
	20 - 24	14 (18.4)	62 (81.6)	
	25 - 29	6 (30.0)	14 (70.0)	
	30 - 34	1(20.0)	4 (80.0)	
	35 or older	0 (0.0)	6 (100.0)	
Marital Status	Single (Never married)	21 (20.8)	80 (79.2)	0.679
	Married	1 (14.3)	6 (85.7)	
	Divorced	0 (0.0)	0 (0.0)	
	Widow/Widower	0 (0.0)	0 (0.0)	
Year of study	3rd	14 (29.8)	33 (70.2)	0.092
	4th	8 (13.6)	51 (86.4)	
Health Facility	Hospital	18 (19.1)	76 (80.9)	0.414
	Health Centre	4 (28.6)	10 (71.4)	
	Clinic	0 (0.0)	0 (0.0)	
Ward of attachment	Paediatric	0 (0.0)	2 (100.0)	0.253
	Surgical	3 (37.5)	5 (62.5)	
	Casualty	1 (20.0)	4 (80.0)	
	Health Centre/Clinic	7 (26.9)	19 (73.1)	
	Operating Theatre	0 (0.0)	11 (100.0)	
	Gynaecology	1 (20.0)	4 (80.0)	
	Medical	3 (42.9)	4 (57.1)	
	Psychiatric	2 (11.8)	15 (88.2)	
	Maternity	3 (13.0)	20 (87.0)	
	Other	2 (50.0)	2 (50.0)	

Gender and theory to practice integration

The majority of male respondents (n=12 (92.3%)) reported a good level of theory to practice integration, whilst very few male respondents' (n= 1 (7.7%)) indicated a poor level of theory to practice integration. More female respondents (n=74 (77.9%)) reported a good level of theory to practice integration compared to n=21 (22.1%) respondents who reported a poor one. Thus, the p-value=0.226 revealed that respondents' gender was not significantly associated with the overall level of theory to practice.

Age and theory to practice integration

All respondents younger than 20 years (n=1 (100.0%)) reported poor levels of theory to practice integration. Many respondents aged 20-24 years (n=62 (81.6%)) reported good levels of theory to practice integration, while n=14 (18.4%) respondents reported poor levels. Moreover, n=14 (70.0%) of respondents aged 25 - 29 years reported good levels of theory to practice integration and n=6 (30.0%) reported poor levels. Besides that, the majority of respondents aged 30 – 34 years (n=4 (80.0%)) indicated good levels of theory to practice integration, while a minority of respondents (n=1 (20.0%)) experienced poor levels. Meanwhile, all respondents aged 35 years or older (n=6 (100.0%)) indicated good levels of theory to practice integration. Therefore, the p-value=0.149 demonstrates that there was no significant association between respondents' age and level of theory to practice integration.

Marital status and theory to practice integration

The majority of respondents who were single or never married (n=80 (79.2%)) reported good levels of theory to practice integration in comparison to n=21 (20.8%) of respondents who reported poor ones. Moreover, respondents who were married (n=6 (85.7%)) indicated good levels of theory to practice integration, while few of the respondents (n=1 (14.3%)) revealed poor levels. The p-value=0.679 indicated that there was no significant association between respondents' marital status and levels of theory to practice integration.

Year of study and theory to practice integration

More than half of respondents in the third year of study (n=33 (70.2%)) revealed good levels of theory to practice integration, however n=14 (29.8%) of respondents indicated poor levels. Meanwhile respondents in the fourth year of study (n=51 (86.4%)) reported good levels of theory and practice integration and n=8 (13.6%) respondents reported poor levels. However, the p-value=0.092 indicated that there was no significant association between respondents' year of study and level of theory to practice integration.

Health facility and theory to practice integration

Most respondents who were attached to the hospital (n=76 (80.9%)) reported experiencing good levels of theory to practice integration while n=18 (19.1%) of respondents reported poor levels. Many respondents from the health centre (n=10 (71.4%)) reported having good levels of theory to practice integration and few n=4 (28.6%) respondents reported poor levels**.** This association was however not significant, as shown by p=0.414.

Ward of attachment and theory to practice integration

All respondents who were attached to paediatric and operating theatre wards (n=2 (100%)) reported good levels of theory to practice integration. A high number of respondents who were attached to surgical wards (n=5 (62.5%)) indicated good levels of theory to practice integration, while n=3 (37.5%) indicated poor levels. Many respondents from casualty (n=4 (80.0%)) indicated good levels of theory to practice integration, compared to n=1 (20.0%) respondents who indicated poor levels. Respondents attached to health centres (n=19 (73.1%)) showed good levels of theory to practice integration while n=7 (26.9%) showed poor levels. The majority of respondents in gynaecology wards (n=4 (80.0%)) revealed good levels of theory to practice integration, with n=1 (20.0%) indicating poor levels of theory to practice integration. Moreover, respondents in medical wards (n=4 (57.1%)) indicated good levels of theory to practice integration, while n=3 (42.9%) respondents in the same ward reported poor levels. Many respondents in psychiatric wards (n=15 (88.2%)) reported good theory to practice integration compared to only a few (n=2 (11.8%)) respondents who reported poor theory to practice integration. Meanwhile, respondents in maternity wards (n=20 (87.0%)) indicated good theory to practice integration while

n=3 (13.0%) indicated poor theory to practice integration. Lastly, respondents in other wards (n= 2 (50.0%)) reported good theory to practice integration while n= 2 (50.0%) respondents reported poor theory to practice integration. The p-value=0.253, indicated that there was no significant association between respondents' ward of attachment and overall levels of theory to practice integration.

4.8.5 Association between the learning opportunities with students' demographic characteristics

The association between each respondent's demographic characteristics and learning opportunities is shown in Table 4.22 and discussed below.

Table 4.22: *Association between learning opportunities with students' demographic characteristics*

Demographic characteristics		Level of the learning opportunities		Chi-squared P-Value
		Inadequate N (%)	Adequate N (%)	
Gender	Male	3 (23.1)	10 (76.9)	0.238
	Female	38 (40.0)	57 (60.0)	
Age	Younger than 20	1 (100.0)	0 (0.0)	0.220
	20 - 24	29 (38.2)	47 (61.8)	
	25 - 29	9 (45.0)	11 (55.0)	
	30 - 34	2 (40.0)	3 (60.0)	
	35 or older	0 (0.0)	6 (100.0)	
Marital Status	Single (Never married)	39 (38.6)	62 (61.4)	0.596
	Married	2 (28.6)	5 (71.4)	
	Divorced	0 (0.0)	0 (0.0)	
	Widow/Widower	0 (0.0)	0 (0.0)	
Year of study	3rd	19 (40.4)	28 (59.6)	0.508
	4th	22 (37.3)	37 (62.7)	
Health Facility	Hospital	36 (38.3)	58 (61.7)	0.853
	Health Centre	5 (35.7)	9 (64.3)	
	Clinic	0(0.0)	0(0.0)	
Ward of attachment	Paediatric	1 (50.0)	1 (50.0)	0.701
	Surgical	3 (37.5)	5 (62.5)	
	Casualty	1 (20.0)	4 (80.0)	
	Health Centre/Clinic	13 (50.0)	13 (50.0)	
	Operating Theatre	3 (27.3)	8 (72.7)	
	Gynaecology	0 (0.0%)	5 (100.0)	
	Medical	3 (42.9)	4 (57.1)	
	Psychiatric	6 (35.3)	11 (64.7)	
	Maternity	9 (39.1)	14 (60.9)	
	Other	2 (50.0)	2 (50.0)	

Gender and learning opportunities

The majority of male respondents (n=10 (76.9%)) indicated that they experienced adequate levels of learning opportunities, compared to n=3 (23.1%) who indicated inadequate levels. The majority of female respondents (n=57 (60.0%)) indicated adequate learning opportunities while respondents (n=38 (40.0%)) indicated inadequate ones. The results show that there was no significant relationship between respondent**s'** gender and levels of learning opportunities, based on p-value=0.238.

Age and learning opportunities

All respondents younger than 20 years (n=1 (100.0%)) reported inadequate levels of learning opportunities compared to respondents aged 20-24 years (n=47 (61.8%)) who revealed adequate levels, and n=29 (38.2%) respondents in the same age category reported inadequate levels. However, n=11 (55.0%) respondents aged 25 - 29 years indicated adequate levels of learning opportunities, while n=9 (45.0%) indicated inadequate learning opportunities. Furthermore, the majority n=3 (60.0%) of respondents aged 30 – 34 years reported adequate levels of learning opportunities while a minority n=2 (40.0%) reported inadequate levels. Meanwhile, all (n=6 (100.0%)) respondents aged 35 years or older indicated adequate levels of learning opportunities. The p-value=0.220 indicated that there was no significant association between respondents' age and levels of learning opportunities.

Marital status and learning opportunities

A high proportion of respondents who were single (n=62 (61.4%)) experienced adequate levels of learning opportunities, while n=39 (38.6%) experienced inadequate levels. Moreover, respondents who were married (n=5 (71.4%)) reported adequate levels of learning opportunities, whereas n=2 (28.6%) reported inadequate levels of learning opportunities. Thus, the p-value=0.596 indicated that there was no significant association between respondents' marital status and their experience of learning opportunities.

Year of study and learning opportunities

Respondents in the third year of study (n=28 (59.6%)) reported that they experienced adequate levels of learning opportunities, whereas n=19 (40.4%) of respondents indicated inadequate levels. Respondents in the fourth year of study (n=37 (62.7%)) reported adequate levels of learning opportunities, while n=22 (37.3%) respondents reported inadequate ones. However, the p-value=0.508 indicated that there was no significant association between respondents' year of study and levels of learning opportunities.

Health facility and learning opportunities

More respondents at the hospitals (n=58 (61.7%)) reported adequate levels of learning opportunities, while n=36 (38.3%) of respondents reported inadequate levels. Many respondents at the health centres (n=9 (64.3%)) reported adequate levels of learning opportunities, except for n=5 (35.7%) respondents who indicated inadequate levels. This association was, however, not significant, as shown by p=0.853.

Ward of attachment and learning opportunities

Half the respondents in paediatric wards (n=1 (50.0%)) reported inadequate learning opportunities and n=1 (50.0%) also reported adequate learning opportunities. The high number (n=5 (62.5%)) of respondents in surgical wards indicated adequate learning opportunities while a minority (n=3 (37.5%)) indicated inadequate learning opportunities. A remarkable number of respondents at casualty (n=4 (80.0%)) revealed adequate learning opportunities while n=1(20.0%) indicated inadequate learning opportunities. Half (n=13 (50.0%)) of the respondents at health centres reported inadequate learning opportunities while n=13 (50.0%) reported adequate learning opportunities. The majority (n=8 (72.7%)) of respondents in operating theatres reported adequate learning opportunities, whilst n=3 (27.3%) reported ones. Meanwhile, n=4 (57.1%) of respondents in medical wards reported adequate learning opportunities and n=3 (42.9%) reported inadequate levels. A notable number of respondents in psychiatric wards (n=11 (64.7%)) indicated adequate levels of learning opportunities, while n=6 (35.3%) indicated inadequate levels. However, n=14 (60.9%) respondents in maternity wards reported adequate levels of learning opportunities compared to n=9 (39.1%) of respondents who reveal inadequate levels of learning opportunities.

Furthermore, n=2 (50.0%) respondents in other wards reported adequate learning opportunities and n=2 (50.0%) reported inadequate learning opportunities. P-value=0.701 indicated that there was no significant association between wards of attachment and overall levels of learning opportunities.

4.8.6 Association between registered nurses' knowledge and practice with students' demographic characteristics

The association between the participants' demographic characteristics and their practices was explored through cross tabulation and chi-squared test to find out the p-value. Table 4.23 below presents the findings.

Table 4.23*: Association between registered nurses' knowledge and practice with students' demographic characteristics.*

Demographic characteristics		Level of registered nurses' knowledge and practice			Chi-squared P-Value
		Low N (%)	Average N (%)	High N (%)	
Gender	Male	0 (0.0)	12 (92.3)	1 (7.7)	0.591
	Female	7 (7.4)	80 (84.2)	8 (8.4)	
Age	Younger than 20	0 (0.0)	1 (100.0)	0 (0.0)	0.963
	20 - 24	5 (6.6)	65 (85.5)	6 (7.9)	
	25 - 29	2 (10.0)	16 (80.0)	2 (10.0)	
	30 - 34	0 (0.0)	5 (100.0)	0 (0.0)	
	35 or older	0 (0.0)	5 (83.3)	1 (16.7)	
Marital Status	Single (Never married)	7 (6.9)	86 (85.1)	8 (7.9)	0.669
	Married	0 (0.0)	6 (85.7)	1 (14.3)	
	Divorced				
	Widow/Widower				
Year of study	3rd	5 (10.6)	37 (78.7)	5(10.6)	0.506
	4th	2 (3.4)	53 (89.8)	4 (6.8)	
Health Facility	Hospital	5 (5.3)	81 (86.2)	8 (8.5)	0.445
	Health Centre	2 (14.3)	11 (78.6)	1(7.1)	
	Clinic				

	Paediatric	0 (0.0)	2 (100.0)	0 (0.0)	
	Surgical	1 (12.5)	7 (87.5)	0 (0.0)	
	Casualty	1 (20.0)	4 (80.0)	0 (0.0)	
	Health Centre/Clinic	4 (15.4)	18 (69.2)	4 (15.4)	
Ward of attachment	Operating Theatre	0 (0.0)	11(100.0)	0 (0.0)	0.231
	Gynaecology	0 (0.0)	3 (60.0)	2 (40.0)	
	Medical	0 (0.0)	6 (85.7)	1 (14.3)	
	Psychiatric	0 (0.0)	17 (100.0)	0 (0.0)	
	Maternity	1 (4.3)	20 (87.0)	2 (8.7)	
	Other	0 (0.0)	4 (100.0)	0 (0.0)	

Gender and registered nurses' knowledge and practice

Registered nurses' knowledge and practice was reported to be at an average level by the majority of male respondents (n=12 (92.3%)), while n=1 (7.7%) of respondents reported a high level of registered nurses' knowledge and practice. Similarly, an average level of registered nurses' knowledge and practice was reported by the majority of female respondents (n=80 (84.2%)), while n=8 (8.4%) respondents reported a high level and n=7 (7.4%) reported a low level. There was no significant relationship between respondents' gender and the overall level of registered nurses' knowledge and practice, as evidenced by p-value=0.591.

Age and registered nurses' knowledge and practice

All respondents younger than 20 years (n=1 (100.0%)) indicated that they experienced average levels of registered nurses' knowledge and practice. Meanwhile, the majority of respondents aged 20 – 24 (n=65 (85.5%)) years reported average levels of registered nurses' knowledge and practice, compared to n=6 (7.9%) who reported high levels of registered nurses' knowledge and practice. Nonetheless, a minority of respondents (n=5 (6.6%)) reported low levels of registered nurses' knowledge and practice. More than half of respondents aged 25 - 29 years (n=16 (80.0%)) reported average levels of registered nurses' knowledge and practice, while n=2 (10.0%) respondents revealed high levels and n=2 (10.0%) respondents revealed low levels. All respondents aged 30 – 34 years (n=5 (100.0%)) reported average levels of registered nurses' knowledge and practice. Many respondents aged 35 years or older (n=5 (83.3%) indicated average levels of registered nurses' knowledge and practice, whilst a minority (n= 1 (16.7%)) indicated low ones. The p-

value=0.963 indicated that respondents' age was not significantly associated with the overall level of registered nurses' knowledge and practice.

Marital status and registered nurses' knowledge and practice

An average level of registered nurses' knowledge and practice was reported by the majority of respondents (n=86 (85.1%)) who were single. However, n=8 (7.9%) respondents reported high levels of registered nurses' knowledge and practice while n=7 (6.9%) reported low levels. The majority of respondents who were married (n=6 (85.7%)) indicated average levels of registered nurses' knowledge and practice compared to n=1 (14.3%) who had experienced high levels. The p-value=0.669 indicated that there was no significant association between respondents' marital status and their experience of registered nurses' knowledge and practice.

Year of study and registered nurses' knowledge and practice

Respondents in the third year of study (n=37 (78.7%)) reported that they had experienced average levels of registered nurses' knowledge and practice, while n= 5 (10.6%) reported low levels and n= 5 (10.6%) reported high levels of registered nurses' knowledge and practice. The majority of respondents in the fourth year of study (n=53 (89.8%)) indicated average levels of registered nurses' knowledge and practice, whereas n=4 (6.8%) indicated high levels and n=2 (3.4%) reported low ones. The p-value=0.506 showed that respondents' year of study was not significantly associated with their experience of the overall level of registered nurses' knowledge and practice.

Health facility and registered nurses' knowledge and practice

Most respondents (n=81 (86.2%)) at the hospitals indicated that they had experienced average levels of registered nurses' knowledge and practice as opposed to n=8 (8.5%) who indicated that they had experienced high levels and n=5 (5.3%) respondents who reported low levels of registered nurses' knowledge and practice. A high number of respondents at the health centre (n=11 (78.6%)) reported average levels of registered nurses' knowledge and practice while n=2 (14.3%) reported low levels and n=1(7.1%) reported high levels. Therefore, the p-value=0.445 indicated that there was no significant association between respondents' health facility and the overall level of registered nurses' knowledge and practice.

Ward attachment and registered nurses' knowledge and practice

All n=2 (100.0%) respondents at paediatric wards, operating theatres n=11(100.0%), psychiatric wards n=17 (100.0%) and others n=4 (100.0%) reported that they experienced average levels of registered nurses' knowledge and practice. Most respondents in surgical wards (n=7 (87.5%) indicated average levels compared to n=1 (12.5%) who indicated low levels of registered nurses' knowledge and practice. Again, most respondents at casualty (n=4 (80.0%)) reported average levels of registered nurses' knowledge and practice, as against n=1 (20.0%) respondents that reported low levels. More than half (n=18 (69.2%)) of the respondents at health centres reported average levels of registered nurses' knowledge and practice, whilst n=4 (15.4%) revealed high levels and n=4 (15.4%) revealed low ones. Meanwhile, n=3 (60.0%) respondents in gynaecological wards reported average levels of registered nurses' knowledge and practice and n=2 (40.0%) reported high levels. However, n=20 (87.0%) respondents in maternity wards reported average levels of registered nurses' knowledge and practice, while n=2 (8.7%) reported high levels of registered nurses' knowledge and practice and n=1 (4.3%) reported low levels. There was no significant relationship between ward of attachment and level of interpersonal relationships according to p-value=0.231.

4.8.7 Association between interpersonal relationships and students' demographic characteristics

The association between interpersonal relationships and students' demographic characteristics is discussed below. The findings are presented in Table 4.24.

Table 4.24*: Association between interpersonal relationships and students' demographic characteristics*

Demographic characteristics		Level of interpersonal relationships		Chi-squared
		Poor N (%)	Good N (%)	P-Value
Gender	Male	10 (76.9)	3 (23.1)	0.633
	Female	67 (70.5)	28 (29.5)	
Age	Younger than 20	1 (100.0)	0 (0.0)	0.716
	20 - 24	56 (73.7)	20 (26.3)	
	25 - 29	12 (60.0)	8 (40.0)	
	30 - 34	4 (80.0)	1 (20.0)	
	35 or older	4 (66.7)	2 (33.3)	
Marital Status	Single (Never married)	73 (72.3)	28 (27.7)	0.392
	Married	4 (57.1)	3 (42.9)	
	Divorced			
	Widow/Widower			
Year of study	3rd	30 (63.8)	17 (36.2)	0.222
	4th	46 (78.0)	13 (22.0)	
Health Facility	Hospital	69 (73.4)	25 (26.6)	0.210
	Health Centre	8 (57.1)	6 (42.9)	
	Clinic			
Ward of attachment	Paediatric	2 (100.0)	0 (0.0)	0.430
	Surgical	6 (75.0)	2 (25.0)	
	Casualty	3 (60.0)	2 (40.0)	
	Health Centre/Clinic	17 (65.4)	9 (34.6)	
	Operating Theatre	7 (63.6)	4 (36.4)	
	Gynaecology	2 (40.0)	3 (60.0)	
	Medical	4 (57.1)	3 (42.9)	
	Psychiatric	15 (88.2%)	2 (11.8%)	
	Maternity	17 (73.9%)	6 (26.1%)	
	Other	4 (100.0%)	0 (0.0%)	

Gender and interpersonal relationships with registered nurses

More male respondents (n=10 (76.9%)) indicated that they had experienced poor interpersonal relationships with students as opposed to n=3 (23.1%) who indicated good interpersonal

relationships. A high number of female respondents (n=67 (70.5%)) reported poor interpersonal relationships with students, compared to n=28 (29.5%) who indicated good ones. The results showed that there was no significant relationship between respondents' gender and levels of interpersonal relationships based on p-value=0.633.

Age and interpersonal relationships with registered nurses

All respondents younger than 20 years (n=1 (100.0%)) reported poor interpersonal relationships with students. Most respondents aged 20-24 years (n=56 (73.7%)) indicated poor interpersonal relationships, while 20 (26.3%) reported good ones. Respondents aged 25 - 29 years (n=12 (60.0%)) indicated poor interpersonal relationships with students whilst less than half (n=8 (40.0%)) reported good ones. However, the majority of respondents aged 30 – 34 years (n=4 (80.0%)) reported poor interpersonal relationships, while a minority (n=1 (20.0%)) reported good ones. Furthermore, n=4 respondents aged 35 years or older ((66.7%)) indicated poor interpersonal relationships compared to n=2 (33.3%) respondents who reported good ones. The p-value=0.716 indicated that there was no significant association between respondents' age and level of interpersonal relationship.

Marital status and interpersonal relationships with registered nurses

A high proportion of respondents who were single (n=73 (72.3%)) experienced poor interpersonal relationships and n=28 (27.7%) respondents showed good ones. Meanwhile, n=4 (57.1%) respondents who were married reported poor interpersonal relationships, while n=3 (42.9%) reported good ones. Based on the p-value=0.392, there was no significant relationship between respondents' marital status and quality of interpersonal relationship.

Year of study and interpersonal relationships with registered nurses

Respondents in the third year of study (n=30 (63.8%)) reported poor interpersonal relationships with registered nurses, while n=17 (36.2%) reported good ones. Most respondents in the fourth year of study (n=46 (78.0%)) reported poor interpersonal relationships with registered nurses, while fewer respondents (n=13 (22.0%)) revealed good ones. Based on p-value= 0.222, there was no significant relationship between year of study and respondents' experience of interpersonal relationships with registered nurses.

Health facility and interpersonal relationships with registered nurses

Respondents at the hospitals (n=69 (73.4%)) reported that they had experienced poor interpersonal relationships with registered nurses, while n=25 (26.6%) reported good ones. Many respondents at the health centres (n=8 (57.1%)) reported poor interpersonal relationships with registered nurses, compared to n=6 (42.9%) who indicated good ones. Similarly, there was no significant association between health facility and quality of interpersonal relationships with registered nurses, indicated by p-value=0.210.

Ward of attachment and interpersonal relationships with registered nurses

A total of respondents (n=2 (100.0%)) in paediatric wards and n=4 (100.0%) from others noted poor interpersonal relationships with registered nurses**.** The high number of respondents in surgical wards (n=6 (75.0%)) reported poor interpersonal relationships with registered nurses with a minority (n=2 (25.0%)) indicating good ones. Furthermore, n=3 (60.0%) respondents at casualty revealed poor interpersonal relationships and n=2 (40.0%) indicated good ones. More than half respondents at the health centres (n=17 (65.4%)) revealed poor interpersonal relationships with registered nurses and n=9 (34.6%) recorded good ones. About n=7 (63.6%) respondents in operating theatres reported poor interpersonal relationships with registered nurses, whilst n= 4 (36.4%) reported good ones. Meanwhile, n=3 (60.0%) respondents in gynaecological wards showed good interpersonal relationships with registered nurses compared to n=2 (40.0%) who showed poor ones. Furthermore, most respondents in medical wards (n=4 (57.1%)) indicated poor interpersonal relationships with registered nurses and n=3 (42.9%) reported good ones. A remarkable number of respondents in psychiatric wards (n=15 (88.2%)) noted poor interpersonal relationships with registered nurses, while n=2 (11.8%) indicated good ones. Similarly, the majority (n=17 (73.9%)) of respondents in maternity wards reported poor interpersonal relationships with registered nurses compared to n=6 (26.1%) respondents who reported good ones. P-value=0.430 showed that there was no significant association between ward of attachment and overall level of interpersonal relationships with registered nurses.

4.8.7 Part 2: Distribution of demographic data of respondents

Part 2 is concerned with the questionnaire for registered nurses. In Part 2, Section A2 focusses on demographic information of registered nurses, characteristics of health facilities and training background of respondents and includes gender, age, years of experience, type of health facility, region, nursing department, number of registered nurses in the department, formal training in clinical education or instruction, whether or not they were currently studying, which course was being pursued, internet connectivity at work, workshops/training in nursing education, first or last workshop/training in nursing education, workshops/training in clinical instruction, and first or last workshop/training in clinical instruction.

Section B2 focusses on students' practices during clinical attachment whereas Section C2 concentrates on interpersonal relationships between nursing students and registered nurses. Respondents were asked to indicate the applicable option by placing a **(√)** in the column of their choices. The results are shown in Table 4:25 and discussed below.

Table 4.25 *Demographic characteristics of respondents*

Variable	(N)%	Variable	(N)%
Gender		Number of registered nurses in the department	
Male	24(14.0)	Less than or equal to 4	15(8.7)
Female	147(85.5)	5-9	77(40.5)
Others	1(0.6)	10-19	48(27.7)
Age		20 or More	39(22.5)
20-24	3(1.7)	Formal training in clinical education/instruction	
25-29	33(19.2)	Yes	49(28.5)
30-34	34(19.8)	No	123(71.5)
35-39	30(17.4)	Currently studying	
40-44	23(13.4)	Yes	7(4.1)
45-49	30(17.4)	No	165(95.9)
50 or older	19(11.0)	Course being pursued	
Years of experience		Nursing education	2(1.2)
1-4	32(18.5)	Others	4(2.3)
5-9	45(26.0)	Internet connectivity at workplace	
10-14	44(25.4)	Yes	68(39.5)
15-19	25(14.5)	No	104(60.5)
20-24	10(5.8)	Workshops/training in nursing education	
25-29	10(5.8)	Yes	32(18.6)
30 or more	6(3.5)	No	140(81.4)
Type of facility		First or last workshop/training in nursing education	
Hospital	140(81.4)	Less than or 1year ago	20(11.6)
Health Centre	21(12.2)	2 - 3 years ago	9(5.2)
Clinic	11(6.4)	4 or more years ago	2(1.2)
Region		Workshops/training in clinical instruction	
Oshana	139(80.8)	Yes	0(0)
Oshikoto	36(19.2)	No	172(100)
Nursing department/ward			
Paediatric	7(4.0)		
Surgical	24(13.9)		
Casualty	17(9.8)		
Health Centre/Clinic	25(14.5)		
Operating Theatre	16(9.2)		
Gynaecology	10(5.8)		
Medical	14(8.1)		
Psychiatric	10(5.8)		
Maternity	22(12.7)		
Other	27(15.6)		

Gender

Table 4.25 indicates that out of 172 respondents, n=147 (85.0%) were females while n=24 (13.9%) were males and n=1 (0.6%) indicated that they were neither males or females. The high proportion of female respondents in this study might be due to the historical belief that nursing is a “woman’s” profession and thus nursing is dominated by women.

Age

Table 4.25 shows that, out of 172 respondents, n=3 (1.7%) were aged 20-24 years, n=33 (19.2%) were aged 25-29 while n=34 (19.8%) were aged 30-34 years and 35-39 were n=30 (17.4%). In addition, n=23 (13.4%) were 40-44 years old, n=30 (17.4%) were aged 45-49 years while n=19 (11.0%) were 50 years or older.

Years of experience

Table 4.25 shows that n=32 (18.5%) of respondents had 1-4 years of experience as registered nurses, n=45 (26.0%) had 5-9 years of experience, n= 44 (25.4%) had 10-14 years, while n= 25 (14.5%) had 15-19 years of experience. Furthermore, n=10 (5.8%) respondents had experience of 20-24 years and n=10 (5.8%) had 25-29 years of experience. Only n=6 (3.5%) had 30 years or more of experience.

Type of facility

Table 4.25 reveals that n= 140 (81.4%) of respondents were working in hospitals while n= 21 (12.2%) were working at health centres. A minority (n=11 (6.4%)) were working in clinics.

Region

Table 4.25 shows that out of 172 respondents, n=139 (80.8%) were from the Oshana region and n=36 (19.2%) were from the Oshikoto region. The reason for the high number of respondents from the Oshana region was because it has a referral hospital and has more training health facilities accredited by the Health Professional Council as training facilities. The Oshikoto region has only one accredited health facility.

Nursing department/ward

Table 4.25 reveals that the respondents were working in the following departments: paediatric n=7 (4.0%); surgical n=24 (13.9. %); casualty n=17 (9.8%); health centres n= 25 (14.5%); operating theatres n=16 (9.2%); gynaecology n=10 (5.8%); medical n=14 (8.1%); psychiatric n=10 (5.8%); maternity n=22 (12.7%); and others, n=27 (15.6%). The study reveals that the highest proportion of respondents were working at health centres because there were more health centres than

hospitals and clinics in the regions under study and many respondents took part in the study. The study further indicates that the second highest number of respondents were in surgical wards due to high patient volume.

Number of registered nurses in the department/facility

Table 4.25 reveals that the departments that indicated a high number of staff had 5-9 registered nurses (n=77 (40.5%)), while departments with fewer than or equal to 4 registered nurses had n=15 (8.7%). Departments that had 10-19 registered nurses counted for n=48 (27.7%) while n=39 (22.5%) had 20 or more registered nurses.

Formal training in clinical education/instruction

The findings as shown in Table 4.25 indicate that n=49 (28.5%) respondents had formal training in clinical instruction/education. This is in line with the provision of effective clinical education which stipulates that the educator should possess teaching skills in order to be able to effectively facilitate clinical education. The findings further revealed that n=123 (71.5%) did not have any formal training in clinical education/instruction. A lack of training in clinical education/instruction is likely to have an impact on effective facilitation of clinical nursing education of student nurses during practical attachment, as they may not have an understanding of the mechanisms by which learning takes place.

Currently studying

The findings reflected in Table 4.25 illustrate that the majority of the respondents (n=165 (95.9%)) were not currently studying, while only n=6 (4.1%) were. Nursing is a dynamic profession and nurses need to be abreast of the latest developments to enable them to execute their functions correctly and incorporate science-based evidence in their facilitation of clinical nursing education.

Course being pursued

The results revealed that only n=2 (1.2%) were pursuing nursing education, while n=4 (2.3 %) were pursuing other courses. However, one respondent did not indicate the course they were pursuing. It is notable that the majority (n=166 (96.5%)) were not studying.

Internet connectivity at workplace

Table 4.25 indicates that n=68 (39.5%) of the respondents had access to the internet at work, while n=104 (60.5%) did not. This could mean that the majority of participants did not have a quick means of reference when confronted with a complicated condition or with a certain question posed by students.

Workshops/trainings on nursing education

Concerning the attendance of workshops/training in nursing education, the majority of registered nurses (n=140 (81.4%)) indicated that they did not receive any training while n=32 (18.6%) did. For nursing students to become proficient in clinical practice, they need competent registered nurses to support and guide them during clinical practice. However, the fact that the majority of registered nurses did not attend training/workshops in clinical education should not be used as an excuse not to facilitate clinical education because all registered nurses have an educational responsibility towards students according to their scope of practice.

First or last workshop/training in nursing education

The findings in Table 4.25 indicate that n=20 (11.6%) had attended the first or last workshop/training less than or one (1) year before they were involved in this study, while n=9 (5.2%) had attended a workshop two-to-three (2-3) years before and n=2 (1.2%) had attended one four (4) or more years before**.** However, one participant did not specify the first or last workshop/training they had attended.

Workshops/training in clinical instruction

None of the respondents (n= 0(0%)) had attended training or a workshop in clinical instruction.

4.8.8 Description of variables for Part 2

A total number of 172 registered nurses completed the questionnaire. The respondents rated the nursing students' clinical practices and the interpersonal relationships between nursing students and registered nurses. There were eight (8) questions on student practices while the questions on interpersonal relationship numbered six (6). The minimum score was 8 and the maximum was 40.

The clinical practices scores were grouped into two categories: bad and good. Respondents with scores ranging from 8-24 were rated as having bad practices whilst respondents with scores from 25-40 were rated as having good ones.

There were six (6) questions on interpersonal relationships between student nurses and registered nurses with a minimum score of 6 and a maximum of 30. Interpersonal relationships were divided into two groups: poor and good. Respondents with scores ranging from 6-18 were rated as having poor interpersonal relationships, while respondents with scores from 19-30 were rated as having good ones.

4.8.8.1 Students' practices during clinical attachment

Participants were asked different questions to assess the quality of students' practices during clinical attachment. Questions on the professionalism, commitment and interest towards learning, preparedness, skills, willingness, negative influences, manners and positive reactions towards instructions were asked. Table 4.26 below presents the results.

Table 4.26: *Students' practices during clinical attachment*

Statement	Strongly disagree N (%)	Disagree N (%)	Neither agree nor disagree N (%)	Agree N (%)	Strongly agree N (%)
Item 1: Nursing students demonstrate appropriate professionalism during clinical attachment	7 (4.1)	14 (8.1)	67 (39.0)	64 (37.2)	20 (11.6)
Item 2: Nursing students show commitment and interest towards clinical learning	1(0.6)	19(11.0)	57(33.1)	76 (44.2)	19(11.0)
Item 3: Nursing students consistently prepare to perform procedures competently	2 (1.2)	31 (18.0)	61 (35.5)	65(37.8)	13 (7.6)
Item 4: Nursing students are skilled when performing procedures	2 (1.2)	25 (14.5)	75 (43.6)	61 (35.5)	9 (5.2)
Item 5: Nursing students are willing to assist or support each other in clinical matters	0 (0)	12 (7.0)	49 (28.5)	82 (47.7)	29 (16.9)
Item 6: Nursing students negatively influence one another during clinical placement	21(12.2)	46 (26.7)	49 (28.5)	40 (23.3)	16 (9.3)
Item 7: Nursing students are well-mannered during practical attachment	8 (4.7)	20 (11.6)	62 (36.0)	61 (35.5)	21 (12.2)
Item 8: Nursing students always react positively when instructed to carry out certain activities or when being corrected	4 (2.3)	22 (12.8)	47 (27.3)	70 (40.7)	29 (16.9)

Table 4.26 presents the respondents' responses to the questions related to students' practices during clinical attachments. The results indicate that the majority of respondents (n=67 (39.0%)) neither agreed nor disagreed that student nurses demonstrated appropriate professionalism during clinical attachment, whereas n=64 (37.2%) agreed. Moreover, n=20 (11.6%) of respondents strongly agreed while n=14 (8.1%) disagreed and n=7 (4.1%) strongly disagreed.

The findings show that n=76 (44.2%) of the participants agreed that nursing students showed commitment and interest towards clinical learning compared to n=19 (11.0%) of respondents who stated that students were not committed and showed no interest in clinical learning. A total of n=19 (11.0%) strongly agreed that nursing students were committed and interested in clinical

learning while n=1 (0.6%) disagreed. However, n=57 (33.1%) of respondents neither agreed nor disagreed.

The study found that n=65 (37.8%) of respondents indicated that students did consistently prepare to perform procedures competently, while n=31 (18.0%) were in disagreement. However, n=13 (7.6%) strongly agreed while n=2 (1.2%) strongly disagreed. Furthermore, n=61 (35.5%) of the respondents were neutral.

The findings show that n=61 (35.5%) of the respondents believed that students were skilled in performing procedures, meanwhile n=9 (5.2%) of respondents strongly agreed while n=2 (1.2%) strongly disagreed. Nonetheless n=25 (14.5%) disagreed that students were skilled, while n=75 (43.6%) of respondents neither agreed nor disagreed.

The results show that n=82 (47.7%) of respondents agreed that students were willing to assist or support one another during clinical placement and n=29 (16.9%) strongly agreed that nursing students were willing to do so. Even so, n=12 (7.0%) of respondents disagreed while n=49 (28.5%) were neutral.

The study revealed that n=40 (23.3%) of respondents agreed that nursing students do negatively influence each other during clinical placement, though n=46 (26.7%) of respondents disagreed that students did so. However, n=49 (28.5%) neither agreed nor disagreed while n=16 (9.3%) strongly agreed.

The findings show that n=61 (35.5%) of the respondents agreed that nursing students were well-mannered when they were on clinical attachments, while n=21 (12.2%) strongly agreed. It was further revealed that n=20 (11.6%) disagreed and n=8 (4.7%) strongly disagreed. However, n=62 (36.0%) of respondents neither agreed nor disagreed.

The study findings indicate that n=70 (40.7%) of respondents agreed that nursing students always reacted positively when instructed to carry out activities or when being corrected, while n=29 (16.9%) strongly agreed and n=47 (27.3%) neither agreed nor disagreed. Meanwhile, n=22 (12.8%) disagreed and n=4 (2.3 %) strongly disagreed.

The students' practices during clinical attachment were scored and grouped into two categories as follows: bad level of students' practice and good level of students' practice. The results are presented in the table 4.27 below.

Table 4.27*: Total scores for students' practice during clinical attachment*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11	1	.6	.6	.6
	16	1	.6	.6	1.2
	18	3	1.7	1.7	2.9
	19	6	3.5	3.5	6.4
	20	2	1.2	1.2	7.6
	21	2	1.2	1.2	8.7
	22	9	5.2	5.2	14.0
	23	11	6.4	6.4	20.3
	24	9	5.2	5.2	25.6
	25	15	8.7	8.7	34.3
	26	11	6.4	6.4	40.7
	27	14	8.1	8.1	48.8
	28	18	10.5	10.5	59.3
	29	14	8.1	8.1	67.4
	30	12	7.0	7.0	74.4
	31	11	6.4	6.4	80.8
	32	11	6.4	6.4	87.2
	33	7	4.1	4.1	91.3
	34	2	1.2	1.2	92.4
	35	5	2.9	2.9	95.3
	36	6	3.5	3.5	98.8
	38	2	1.2	1.2	100.0
	Total	172	100.0	100.0	

Discussed above were the respondents' results to the questions of students' practices during clinical attachment. These responses were scored in order to rate the respondents' views on students' practices during clinical attachment. The practices scores were grouped into two categories: respondents with scores ranging from 8-24 were rated to have bad practices whilst

respondents with scores in the range of 25-40 were rated to have good ones. The table 4.28 below presents the total practice categories

Table 4.28: *Total practice categories*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bad	44	25.6	25.6	25.6
	Good	128	74.4	74.4	100.0
	Total	172	100.0	100.0	

From Table 4.28 above, it is evident that n=128 (74.4%) of respondents have shown that students' practices during clinical attachment were good in comparison to n=44 (25.6%) respondents that reported that students' practices during clinical attachment were bad.

4.8.8.2 Interpersonal relationships between nursing students and registered nurses.

To determine the quality of interpersonal relationships between students and registered nurses, respondents were asked six (6) questions using the five-point Likert scale. These results are shown below in Table 4.29.

Table 4.29: *Interpersonal relationships between students and registered nurses*

Statement	Strongly disagree N (%)	Disagree N (%)	Neither agree nor disagree N (%)	Agree N (%)	Strongly agree N (%)
1. Nursing students and registered nurses maintain a positive working relationship	1 (0.6)	0 (0)	18 (10.5)	96 (55.8)	57 (33.1)
2. Nursing students and registered nurses demonstrate a positive attitude towards each other	1 (0.6)	3 (1.7)	38 (22.1)	93 (54.1)	37 (21.5)
3. Nursing students and registered nurses communicate effectively during clinical placement	0 (0)	11 (6.4)	29 (16.9)	91 (52.9)	41 (23.8)
4. The Nursing students' approach towards registered nurses is disrespectful	44 (25.6)	61 (35.5)	32 (18.6)	21 (12.2)	14 (8.1)
5. Nursing students are always free to approach registered nurses	8 (4.7)	17 (9.9)	43 (25.0)	66 (38.4)	38 (22.1)
6. Nursing students refuse to carry out tasks when requested to do so by registered nurses	33 (19.2)	57 (33.1)	50 (29.1)	19 (11.0)	13 (7.6)

The results indicate that the majority (n=95 (55.8%)) of the respondents agreed that there was a positive working relationship between nursing students and registered nurses, while n=57 (33.1%) strongly agreed and a minority of respondents (n=1 (0.6%)) strongly disagreed. Moreover, n=18 (10.5%) neither agreed nor disagreed.

The results show that the majority of respondents (n=93 (54.1%)) agreed that nursing students and registered nurses demonstrated a positive attitude towards one another while n=37 (21.5%) strongly agreed. Even so, n=3 (1.7%) of respondents disagreed while n=1 (0.6%) strongly disagreed. Meanwhile n=38 (22.1%) respondents were neutral.

The findings reveal that n=91 (52.9%) respondents agreed that registered and nursing students communicated effectively during clinical attachments while n=41 (23.8%) strongly agreed. However, n=11 (6.4%) disagreed while n=29 (16.9%) neither agreed nor disagreed.

The study found that n=61 (35.5%) of respondents disagreed that the nursing students' approach towards registered nurses was disrespectful, while n=44 (25.6%) were strongly in disagreement. However, 18.6% (n=32) neither agreed nor disagreed, while n=21 (12.2%) agreed and n=14 (8.1%) or respondents strongly agreed.

The results indicate that n=66 (38.4%) of the respondents agreed that nursing students were always free to approach registered nurses, n=38 (22.1%) strongly agreed while n=43 (24.9%) neither agreed nor disagreed. Moreover, n=17 (9.9%) disagreed while n=8 (4.7%) strongly disagreed.

The study revealed that n=57 (33.1%) of respondents disagreed that nursing students refused to carry out tasks when requested to do so by registered nurses, though n=33 (19.2%) of respondents strongly disagreed. However, n=19 (11.0%) agreed while n=13 (7.6%) strongly agreed. Nonetheless, n=50 (29.1%) of respondents neither agreed nor disagreed.

Table 4.30: *Total scores for interpersonal relationships*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14	1	.6	.6	.6
	16	6	3.5	3.5	4.1
	17	2	1.2	1.2	5.2
	18	9	5.2	5.2	10.5
	19	9	5.2	5.2	15.7
	20	14	8.1	8.1	23.8
	21	18	10.5	10.5	34.3
	22	18	10.5	10.5	44.8
	23	21	12.2	12.2	57.0
	24	20	11.6	11.6	68.6
	25	21	12.2	12.2	80.8
	26	17	9.9	9.9	90.7
	27	4	2.3	2.3	93.0
	28	4	2.3	2.3	95.3
	29	6	3.5	3.5	98.8
	30	2	1.2	1.2	100.0
	Total	172	100.0	100.0	

The scores presented in Table 4.30 above were grouped in order to determine the respondents' views on the interpersonal relationships between student nurses and registered nurses during clinical attachment. Respondents with scores in the range of 6 - 18 were rated as having poor interpersonal relationships and scores of 19 - 30 were rated as having good ones. Table 4.31 below presents the interpersonal relationship categories.

Table 4.31*: Total interpersonal relationships categories*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	18	10.5	10.5	10.5
	Good	154	89.5	89.5	100.0
	Total	172	100.0	100.0	

The majority of the respondents (n=154 (89.5%)) were shown to have good interpersonal relationships compared to a small number of n=18(10.5%) respondents who indicated poor ones.

4.8.9 Association of students' practices during clinical attachment with demographic characteristics of registered nurses

Table 4.32 below presents information concerning the association between the level of student practice during clinical attachment and registered nurses' demographic characteristics. The findings are discussed below.

Table 4.32*: Association of students' practices during clinical attachment with demographic characteristics of registered nurses.*

Demographic characteristics		Level of students' practices during clinical attachment		Chi-squared P-Value
		Bad N (%)	Good N (%)	
Gender	Male	6 (25.0)	18 (75.0)	0.231
	Female	37 (25.2)	110 (74.8)	
Age	Younger than 20	0 (0.0)	0 (0.0)	0.212

Demographic characteristics		Level of students' practices during clinical attachment		Chi-squared P-Value
		Bad N (%)	Good N (%)	
	20 - 24	2 (66.7)	1 (33.3)	
	25 - 29	9 (27.3)	24 (72.7)	
	30 - 34	4 (11.8)	30 (88.2)	
	35-39	10 (33.3)	20 (66.7)	
	40-44	8 (34.8)	15 (65.2)	
	45-49	7 (23.3)	23 (76.7)	
	50 or older	4 (21.1)	15 (78.9)	
Years of experience	1-4	9(28.1)	23(71.9)	0.827
	5-9	9(20.0)	36(80.0)	
	10-14	13(29.5)	31(70.5)	
	15-19	7(28.0)	18(72.0)	
	20-24	3(30.0)	7(70.0)	
	25-29	1(10.0)	9(90.0)	
	30 or more	2(33.3)	4(66.7)	
Health facility	Hospital	41(29.3)	99(70.7)	0.045
	Health Centre	3(14.3)	18(85.7)	
	Clinic	0(0.0)	11(100.0)	
Region	Oshana	35(25.2)	104 (74.8)	0.804
	Oshikoto	9(27.3)	24(72.7)	
Ward	Paediatric	1(14.3)	6(85.7)	0.048
	Surgical	7(29.2)	17(70.8)	
	Casualty	4(23.5)	13(76.5)	
	Health Centre/Clinic	4(16.0)	21(84.0)	
	Operating Theatre	5(31.3)	11(68.8)	
	Gynaecology	3(30.0)	7(70.0)	
	Medical	0(0.0)	14(100.0)	
	Psychiatric	2(20.0)	8(80.0)	
	Maternity	12(54.5)	10(45.5)	
	Others	6(22.2)	21(77.8)	
Number of registered nurses in department	Less than or equal to 4	2(13.3)	13(86.7)	
	5-9	11(15.7)	59(84.3)	0.008
	10-19	14(29.2)	34(70.8)	

Demographic characteristics		Level of students' practices during clinical attachment		Chi-squared P-Value
		Bad N (%)	Good N (%)	
	20 or more	17(43.6)	22(56.4)	
Formal training in clinical education	Yes	15(30.6)	34(69.4)	0.340
	No	29(23.6)	94(76.4)	
Currently studying	Yes	1(16.7)	5(83.3)	0.736
	No	43(26.1)	122(73.9)	
Course being pursued	Critical care			0.439
	Community nursing			
	Nursing education		2(100.0)	
	Nursing administration			
	Clinical instruction			
	Health promotion			
	Advanced midwifery			
	Theatre techniques			
	Others	1(25.0)	3(75.0)	
Internet connectivity	Yes	14(20.6)	54(79.4)	0.225
	No	30(28.8)	74(71.2)	
Workshop/training attendance in nursing education	Yes	6(18.8)	26(81.3)	0.326
	No	38(27.1)	102(72.9)	
First or last workshop/training in nursing education	Less than or 1 year before	5(25.0)	15(75.0)	0.527
	2-3 years before	1(11.1)	8(88.9)	
	4 or more years before			
Workshop/training attendance in clinical education	Yes			
	No			
First or last workshop/training in clinical education	Less than or 1 year before			
	2-3 years before			
	4 or more years before			

Gender and clinical attachment

Table 4.32 shows that the majority of male respondents (n=18 (75.0%)) indicated good levels of students' practice during clinical attachment, while the minority (n=6 (25.0%)) indicated bad levels. Furthermore, n=110 (74.8%) of female respondents reported good levels of students' practice during clinical attachment compared to n=37 (25.2%) who reported bad levels. The results showed that there was no significant relationship between respondents' gender and level of students' practice during clinical attachment, as shown by the p-value=0.231.

Age and clinical attachment

Respondents aged 20-24 years (n=2 (66.7%)) reported bad levels of students' practice during clinical attachment compared to n=1 (33.3%) who reported good levels. Furthermore, the majority=24 (72.7%) of respondents aged 25 - 29 years noted good levels of students' practice during clinical attachment, while n=9 (27.3%) respondents in the same age group reported bad levels. However, n= 30 (88.2%) respondents aged 30 – 34 years also reported good levels of students' practice during clinical attachment while n=4 (11.8%) respondents reported bad levels. Nonetheless, n=20 (66.7%) respondents aged 35-39 years reported good levels of students' practice during clinical attachment, while n=10 (33.3%) reported bad ones. Besides that, n=15 (65.2%) respondents aged 40-44 years noted good levels of students' practices, while n=8 (34.8%) noted bad levels. The highest proportion (n=23 (76.7%)) of respondents aged 45-49 years revealed good levels of students' practice during clinical attachment, whilst n=7 (23.3%) revealed bad ones. Nonetheless, n=15 (78.9%) respondents aged 50 years or older indicated good levels of students' practice during clinical attachment compared to n=4 (21.1%) who indicated bad levels. The p-value of 0.212, suggested that respondents' age was not significantly associated with the level of students practice during clinical attachment.

Years of experience and clinical attachment

Findings from Table 4.32 revealed that n=23(71.9%) respondents with 1-4 years of experience indicated good levels of students' practice during clinical attachment and n=9(28.1%) indicated bad levels. The majority (n=36(80.0%)) of respondents with 5-9 years of experience revealed good levels of students' practice during clinical attachment compared to a minority (n=9(20.0%))

that revealed bad levels of students' practice during clinical attachment. Furthermore, n=31(70.5%) with 10-14 years of experience showed good levels of students' practice during clinical attachment, while n=13(29.5%) showed bad levels. Moreover, a high proportion (n=18(72.0%)) of respondents with 15-19 years of experience noted good levels of students' practice during clinical attachment, whilst n=7(28.0%) noted bad ones. Nonetheless, n=7(70.0%) respondents with 20-24 years of experiences showed good students' practice, compared to n=3(30.0%) who showed bad students' practice. A high number (n=9(90.0%)) of respondents with 25-29 years of experiences reported good levels of students' practice during clinical attachment and n= 1(10.0%) respondent reported bad levels. However, n=4(66.7%) of respondents with 30 or more years of experience indicated good students' practice, while n=2(33.3%) reported bad students' practice. There was no significant association between respondents' years of experience and students' practice during clinical attachment, as p-value=0.827 showed.

Health facility and clinical attachment

More respondents at the hospitals (n=99(70.7%)) reported good students' practice during clinical attachment, although a small number (n=41(29.3%)) indicated bad students' practice. Although a small percentage (n=3(14.3%)) of respondents at the health centres revealed bad students' practices, a high number (n=18(85.7%) of respondents indicated good students' practices. Moreover, all respondents at the clinic (n=11(100.0%)) reported good students' practice during clinical attachment. Thus, there was a significant association between the respondents' health facility and students' practice during clinical attachment, p-value=0.045. This indicates that the type of health facility does indeed have an influence on the clinical attachment.

Region and clinical attachment

The majority of respondents in Oshana region (n=104 (74.8%)) reported good levels of students' practice during clinical attachment, while n=35(25.2%) reported bad students' practice. A high number n=24(72.7%) of respondents in Oshikoto region indicated good students' practice, although n=9(27.3%) reported that students' practice during clinical attachment was bad. Respondents in other wards (n=21(77.8%)) reported good students' practice, while n=6(22.2%) indicated bad students' practice. The p-value of 0.804 illustrates that there was no significant relationship between respondents' region and students' practice during clinical attachment.

Ward and clinical attachment

Respondents in paediatric wards (n=6(85.7%)) noted good levels of students' practice during clinical attachment compared to n=1(14.3%) respondents that reported bad students' practices. The high number (n=17(70.8%)) of respondents in surgical wards reported good levels of students' practice during clinical attachment, while n=7(29.2%) reported bad levels. Furthermore, n=13(76.5%) respondents at casualty reported good levels of students' practice during clinical attachment, whilst n= 4(23.5%) noted bad levels. More than half (n=21(84.0%)) of the respondents at the health centre and clinic reported good students' practice while n=4(16.0%) revealed bad levels of students' practice during clinical attachment. About n=11(68.8%) respondents in operating theatres reported good levels of students' practice during clinical attachment, whilst n= 5(31.3%) reported bad levels. Meanwhile, n=7(70.0%) respondents in gynaecological wards showed good levels of students' practice compared to n=3(30.0%). Furthermore, all (n=14(100.0%)) respondents in medical wards indicated good levels of students' practice. More respondents in psychiatric wards (n=8(80.0%)) noted good students' practice, while n=2(20.0%) indicated bad students' practice. Nonetheless, n=12(54.5%) respondents in maternity wards reported bad students' practice compared to n=10(45.5%) respondents who reported good students' practice. P-value=0.048 showed that there was a significant association between respondents' ward and level of students' practice during clinical attachment. This indicates that the type of ward did have an influence on the clinical attachment.

Number of registered nurses in department and clinical attachment

The majority n=13(86.7%) of respondents who had fewer than or equal to four (4) registered nurses in the department indicated good levels of students' practice compared to a small number (n=2(13.3%)) that indicated bad levels. A high proportion (n=59(84.3%)) of respondents who had 5-9 registered nurses in the department reported good levels of students' practice, while n=11(15.7%) had bad levels. About n=34(70.8%) of respondents who had 10-19 registered nurses in the department indicated good levels of students' practice compared to n=14(29.2%) who indicated good students' practice. Moreover, n=22(56.4%) respondents who had 20 or more registered nurses in the department reported good levels of students' practice and n=17(43.6%) reported bad levels. The results indicated that there was a significant association between the

number of registered nurses in departments and levels of students' practice during clinical attachment, as indicated by p-value=0.008. This suggests that the number of registered nurses in departments did have an influence on levels of students' practice during the clinical attachment.

Formal training in clinical education and clinical attachment

More than half of respondents (n=34(69.4%)) that had formal training in clinical instruction reported good levels of students' practice during clinical attachment, while n=15(30.6%) reported bad levels. Even so, n=94(76.4%) respondents that did not have formal training in clinical education indicated good students' practice, whilst n=29(23.6%) indicated bad students' practice. The p-value=0.340 showed that there was no significant relationship between formal training in clinical education and levels of students' practice during clinical attachment.

Currently studying and clinical attachment

More respondents who were currently studying (n=5(83.3%)) showed good levels of students' practice during clinical attachment, compared to very few (n-1(16.7%)) respondents who showed bad levels. Furthermore, those who were not studying (n=122(73.9%)) reported good students' practice, while n=43(26.1%) reported bad students' practice. Based on the p-value=0.736, it illustrated that there was no significant association between students currently studying and levels of students' practice during clinical attachment.

Courses being pursued and clinical attachment

All respondents (n=2(100.0%)) who were pursuing nursing education reported good levels of students' practice during clinical attachment. Again, a majority of respondents (n=3(75.0%)) who were pursuing other courses showed good levels of students' practice during clinical attachment, while n=1(25.0%) indicated good levels. There was no association between the course being pursued and level of students' practice during clinical attachment, as indicated by p-value=0.439.

Internet connectivity at workplace and clinical attachment

About n=54(79.4%) respondents with internet connectivity in the workplace showed good levels of students' practice during clinical attachment, though n=14(20.6%) revealed bad levels. Meanwhile, n=74(71.2%) respondents without internet connectivity in the workplace reported

good levels of students' practice during clinical attachment, compared to n=30(28.8%) who reported bad levels**.** The p-value=0.225 illustrated that there was no association between internet connectivity in the workplace and levels of students' practice during clinical attachment.

Workshop/training attendance on nursing education during clinical attachment

The majority of respondents (n=26(81.3%)) who attended workshops/training in nursing education indicated good students' practice during clinical attachment, compared to n=6(18.8%) who indicated bad students' practice during clinical attachment. Meanwhile n=102(72.9%) respondents who did not attend workshops/training in nursing education reported good students' practice during clinical attachment, but n=38(27.1%) reported it was bad**.** The p-value=0.326 revealed that respondents' attendance of workshop/training in nursing education was not significantly associated with levels of students' practice during clinical attachment.

First or last workshop/training in nursing education and clinical attachment

The majority n=15(75.0%) of respondents who had their first or last workshop/training in nursing education less than or one (1) year before they took part in this study reported good levels of students' practice in comparison to n=5(25.0%) who indicated bad levels. A high proportion (n=8(88.9%)) of respondents who had their first or last workshop/training in nursing education two-to-three (2-3) years before reported good levels of students' practice, while n=1(11.1%) reported bad levels. The p-value=0.527 showed that there was no significant association between first or last workshop/training in nursing education and levels of students' practice during clinical attachment.

4.8.10 Association of interpersonal relationship with demographic characteristics of registered nurses

The association of interpersonal relationships of registered nurses with demographic characteristics is presented in Table 4.33 below.

Table 4.33: *Association of interpersonal relationships with demographic characteristics of registered nurses*

Demographic characteristics		Level of interpersonal relationships between students and registered nurses		Chi-squared P-Value
		Poor N (%)	Good N (%)	
Gender	Male	1 (4.2)	23 (95.8)	0.516
	Female	17 (11.6)	130 (88.4)	
Age	Younger than 20	0 (0.0)	0 (0.0)	0.268
	20 - 24	0 (0.0)	3 (100.0)	
	25 - 29	2 (6.1)	31 (93.9)	
	30 - 34	3 (8.8)	31 (91.2)	
	35-39	2 (6.7)	28 (93.3)	
	40-44	3 (13.0)	20 (87.0)	
	45-49	7 (23.3)	23 (76.7)	
	50 or older	1 (5.3)	18 (94.7)	
Years of experience	1-4	1(3.1)	31(96.9)	0.487
	5-9	6(13.3)	39 (86.7)	
	10-14	4(9.1)	40 (90.9)	
	15-19	5(20.0)	20 (80.0)	
	20-24	1(10.0)	9 (90.0)	
	25-29	1(10.0)	9 (90.0)	
	30 or more	0 (0.0%)	6 (100.0)	
Health facility	Hospital	15 (10.7)	125 (89.3)	0.444
	Health Centre	3 (14.3)	18 (85.7)	
	Clinic	0 (0.0)	11(100.0)	
Region	Oshana	17(12.2)	122(87.8)	0.121
	Oshikoto	1(3.0)	32 (97.0)	
Ward	Paediatric	1(14.3)	6 (85.7)	0.162
	Surgical	1(4.2)	23 (95.8)	

Demographic characteristics		Level of interpersonal relationships between students and registered nurses		Chi-squared P-Value
		Poor N (%)	Good N (%)	
	Casualty	2(11.8)	15 (88.2)	
	Health Centre/Clinic	3(12.0)	22 (88.0)	
	Operating Theatre	2(12.5)	14 (87.5)	
	Gynaecology	3(30.0)	7 (70.0)	
	Medical	0 (0.0)	14 (100.0)	
	Psychiatric	0 (0.0)	10 (100.0)	
	Maternity	5(22.7)	17 (77.3)	
	Other	1(3.7)	26 (96.3)	
Number of registered nurses in department	Less than or equal to 4	0(0)	15 (100.0)	0.084
	5-9	4(5.7)	66 (94.3)	
	10-19	7(14.6)	41 (85.4)	
	20 or more	7(17.9)	32 (82.1)	
Formal training on clinical education	Yes	6(12.2)	43 (87.8)	0.630
	No	12(9.8)	111(90.2)	
Currently studying	Yes	1(16.7)	5 (83.3)	0.832
	No	17(10.3)	148(89.7)	
Course pursuing	Critical care	0 (0.0)	0 (0.0)	0.121
	Community nursing	0 (0.0)	0 (0.0)	
	Nursing education	1(50.0)	1(50.0)	
	Nursing administration	0 (0.0)	0 (0.0)	
	Clinical instruction	0 (0.0)	0 (0.0)	
	Health promotion	0 (0.0)	0 (0.0)	
	Advanced midwifery	0 (0.0)	0 (0.0)	
	Theatre techniques	0 (0.0)	0 (0.0)	
	Others	0 (0.0)	4(100.0)	
Internet connectivity	Yes	6(8.8)	62(91.2)	0.570
	No	12(11.5)	92(88.5)	
Workshop/training attendance on nursing education	Yes	4(12.5)	28(87.5)	0.677
	No	14(10.0)	126(90.0)	
	Less than or 1 year before	4(20.0)	16(80.0)	0.283

Demographic characteristics		Level of interpersonal relationships between students and registered nurses		Chi-squared P-Value
		Poor N (%)	Good N (%)	
First or last workshop/training on nursing education	2-3 years before	0 (0.0)	9(100.0)	
	4 or more years before	0 (0.0)	2(100.0)	
Workshop/training attendance on clinical instruction	Yes	0 (0.0)	0 (0.0)	
	No	0 (0.0)	0 (0.0)	
First or last workshop/training on nursing instruction	Less than or 1 year before	0 (0.0)	0 (0.0)	
	2-3 years before	0 (0.0)	0 (0.0)	
	4 or more years before	0 (0.0)	0 (0.0)	

Gender and interpersonal relationships

The highest proportion of male respondents (n=23 (95.8%)) reported good interpersonal relationships between nursing students and registered nurses, compared to a small proportion (n=1 (4.2%)) that reported poor interpersonal relationships. Furthermore, the majority of female respondents (n=130 (88.4%)) indicated good interpersonal relationships, while n=17 (11.6%) indicated poor interpersonal relationships. The results (p-value=0.516) show that there was no significant relationship between respondents' gender and interpersonal relationships between nursing students and registered nurses.

Age and interpersonal relationships

All (n=3 (100.0%)) respondents aged 20 – 24 years reported good interpersonal relationships between nursing students and registered nurses. The majority of respondents (n=31 (93.9%)) aged 25 - 29 years also noted good interpersonal relationships, while n=2 (6.1%) indicated poor ones. However, more n=31 (91.2%) respondents who were between 30-34 years reported good interpersonal relationships, whilst few (n=3 (8.8%)) reported poor ones. Moreover, n=28 (93.3%) respondents in the age range of 35-39 indicated good interpersonal relationship, but n=2 (6.7%) indicated poor ones. Nonetheless, n=20 (87.0%) respondents aged 40-44 years reported good interpersonal relationships, while n=3 (13.0%) noted poor interpersonal relationships.

Nevertheless, n=23 (76.7%) respondents in the age group of 45-49 years reported good interpersonal relationships and n=7 (23.3%) indicated poor ones. More respondents (n=18 (94.7%)) aged 50 years or older reported good interpersonal relationships, while a few (n=1 (5.3%)) indicated poor ones. According to the p-value=0.268, there was no association between the age of respondents and the quality of the interpersonal relationships they experienced between nursing students and registered nurses.

Years of experience and interpersonal relationships

Respondents with 1-4 years of experience (n=31(96.9%)) reported good interpersonal relationships between nursing students and registered nurses, while n=1(3.1%) noted poor interpersonal relationships. A high number of respondents (n=39(86.7%)) with 5-9 years of experience reported good interpersonal relationships, but a small number (n=6(13.3%)) reported poor ones. Furthermore, respondents with 10-14 years of experience (n=40(90.9%)) noted good interpersonal relationships and n=4(9.1%) indicated poor ones. Moreover, those with 15-19 years of experience (n=20(80.0%)) reported good interpersonal relationships, compared to n=5(20.0%) who noted poor ones. The majority of respondents with 20-24 years of experience (n=9(90.0%)) showed good interpersonal relationships, whilst n=1(10.0%) noted poor ones. Again, respondents with 25-29 years of experience (n=9(90.0%)) reported good interpersonal relationships, while n=1(10.0%) reported poor ones. All respondents with 30 or more years of experience reported good interpersonal relationships. The p-value=0.487 indicated that there was no significant association between respondents' years of experience and the interpersonal relationships between nursing students and registered nurses.

Health facility and interpersonal relationships

Most respondents at the hospitals (n=125(89.3%)) indicated good interpersonal relationships between nursing students and registered nurses, but n=15(10.7%) indicated poor ones. A high proportion (n=18(85.7%)) of respondents at health centres showed good interpersonal relationships, while n=3(14.3%) reported poor ones. All respondents at the clinic (n=11(100.0%)) reported good interpersonal relationships**.** The findings (p-value=0.444) showed that there was no significant relationship between respondents' health facility and interpersonal relationships.

Region and interpersonal relationships

Most respondents in Oshana region (n=122(87.8%)) reported good interpersonal relationships between registered nurses and nursing students, while n=17(12.2%) showed poor ones. The majority of respondents from Oshikoto region (n=32(97.0%)) revealed good interpersonal relationships and n=1(3.0%) noted poor ones. According to p-value=0.121, there was no significant relationship between region and interpersonal relationships.

Ward and interpersonal relationships

A majority of respondents in paediatric wards (n=6(85.7%)) reported good interpersonal relationships between nursing students and registered nurses, with few n=1(14.3%) respondents noting poor ones. More respondents in surgical wards (n=23(95.8%)) reported good interpersonal relationships, with a minority (n= 1(4.2%)) indicating poor ones. Moreover, n=15(88.2%) respondents in casualty reported good interpersonal relationships compared to n=2(11.8%) respondents who indicated poor ones. The majority of respondents at the health centres (n=22(88.0%)) revealed good interpersonal relationships between nursing students and registered nurses while n=3(12.0%) reported poor ones. A high proportion of respondents in operating theatres (n=14(87.5%)) reported good interpersonal relationships, whilst n=2(12.5%) reported poor ones. More than half the respondents in gynaecological wards (n=7(70.0%)) showed good interpersonal relationships with registered nurses compared to n= 3(30.0%) who reported poor ones. Meanwhile, all n=14(100.0%) respondents in medical and n=10(100.0%) in psychiatric wards indicated good interpersonal relationships. A notable number of respondents (n=17(77.3%)) in maternity wards noted good interpersonal relationships, while n=5(22.7%) indicated poor ones. Nonetheless, n=26(96.3%) respondents in other wards reported good interpersonal relationship between nursing students and registered nurses, compared to n=1(3.7%) respondents that revealed poor ones. P-value=0.162 showed that there was no significant association between respondents' wards and interpersonal relationships with registered nurses.

Number of registered nurses in departments and interpersonal relationships

All n=15(100.0%) respondents who had fewer than or equal to four (4) registered nurses in the department indicated good interpersonal relationships between nursing students and registered

nurses. A high number n=66(94.3%) of respondents who had five-to-nine (5-9) registered nurses in the department reported good interpersonal relationships between nursing students and registered nurses, while a small number (n=4(5.7%)) indicated poor ones. A high proportion (n=41(85.4%)) of respondents who had ten-to-nineteen (10-19) registered nurses in the department reported good interpersonal relationships, while n=7(14.6%) had poor ones. About n=32(82.1%) respondents who had twenty (20) or more registered nurses in the department reported good interpersonal relationships, compared to n=7(17.9%) who indicated poor ones. The results showed that there was no significant association between the number of registered nurses in departments and interpersonal relationships between nursing students and registered nurses, as the p-value=0.084 showed.

Formal training in clinical education and interpersonal relationships

The majority of respondents (n=43(87.8%)) that had formal training in clinical instruction reported good interpersonal relationships between nursing students and registered nurses, while a few n=6(12.2%) reported poor interpersonal relationships. Moreover, a high proportion n=111(90.2%) of respondents who did not have formal training in clinical education indicated good interpersonal relationships, whilst n=12(9.8%) reported poor ones. The p-value=0.630 showed that there was no significant relationship between formal training in clinical education and interpersonal relationships between nursing students and registered nurses.

Currently studying and interpersonal relationships

Most n=5(83.3%) respondents who were currently studying reported good interpersonal relationships between nursing students and registered nurses, while a few (n-1(16.7%)) respondents showed poor ones. Furthermore, n=148(89.7%) who were currently not studying indicated good interpersonal relationships, whilst n=17(10.3%) reported poor ones. According to the p-value=0.121, this illustrated that there was no significant association between participants who were currently studying and the interpersonal relationships between nursing students and registered nurses.

Course pursued and. interpersonal relationships

Half of the respondents (n=1(50.0%)) who were pursuing courses in nursing education revealed good interpersonal relationships between nursing students and registered nurses, while n=1(50.0%) reported poor ones. All respondents (n=4(100.0%)) who were pursuing other courses reported good interpersonal relationships. The p-value=0.121 showed there was no significant association between the course being pursued and interpersonal relationships between nursing students and registered nurses.

Internet connectivity in the workplace and interpersonal relationships

Many respondents (n=62(91.2%)) with internet connectivity in the workplace reported good interpersonal relationships between nursing students and registered nurses, while n=6(8.8%) revealed poor interpersonal ones. Meanwhile, n=92(88.5%) respondents without internet connectivity in the workplace reported good interpersonal relationships, compared to n=12(11.5%) respondents who reported poor ones. The p-value=0.570 indicated that there was no association between internet connectivity in the workplace and interpersonal relationships between nursing students and registered nurses.

Workshop/training attendance in nursing education and interpersonal relationships

A high proportion (n=28(87.5%)) of respondents who attended workshops/training in nursing education reported good interpersonal relationships between nursing students and registered nurses, whilst n=4(12.5%) respondents indicated poor ones. However, n=126(90.0%) respondents who did not attend workshop/training in nursing education reported good interpersonal relationships, while n=14(10.0%) indicated poor interpersonal relationships. The p-value=0.677 revealed that respondents' attendance of workshop/training in nursing education was not significantly associated with interpersonal relationships between nursing students and registered nurses.

First or last workshop/training in nursing education and interpersonal relationships

The majority n=16(80.0%) of respondents who had undergone first or last workshop/training in nursing education less than or one (1) year before they took part in this study reported good

interpersonal relationships compared to n=4(20.0%) respondents who indicated poor interpersonal relationships. All n=9(100.0%) respondents who had undergone their first or last workshop/training in nursing education two-to-three (2-3) years before, as well as n=2(100.0%) respondents who had their first or last workshop/training on nursing education four (4) or more years before, reported good interpersonal relationships. The p-value=0.283 showed that there was no significant association between first or last workshop/training in nursing education and interpersonal relationships.

4.9 MERGING OF DATA

"Merging of data is a procedure for integrating different sets of data from multiple files into one, on the basis of one or more key variables" (Sarwar, Zerpa, Van Barneveld, Simon & Brinson, 2013, p44). In this study, the qualitative and quantitative data were merged and final findings emerged. The purpose of objectives 1,2,3 and 4 was to generate evidence for the development of the guidelines for registered nurses to facilitate clinical nursing education. Therefore, results from qualitative and quantitative designs were merged and supported with relevant literature and conclusions drawn from the merged results. A convergent parallel mixed method was used to merge the results of qualitative and quantitative approaches as both data were collected concurrently thus giving the two designs an equal weight.

The merging of the findings is presented in Table 4.34 below

.

Table 4.34: *Merged findings*

Objective	Findings	Conclusion	Merging	Best practices and challenges
Describe best practices (through literature) in clinical nursing education	Qualitative Best practices • Intersectoral collaboration • Stakeholders' involvement • Effective Communication • Qualities of a good facilitator • Conducive clinical learning environment • Shared vision	Best practices to facilitate clinical nursing education • Intersectoral collaboration • Stakeholders' involvement • Effective communication • Qualities of a good facilitator • Conducive clinical learning environment • Provision of resources • Shared vision.	• Best practices in clinical nursing education (objective 1) ○ Intersectoral collaboration ○ Stakeholders' involvement ○ Effective communication ○ Qualities of a facilitator ○ Conducive clinical learning environment ○ Shared vision	• Best practices in clinical nursing education • Student nurses' challenges • Registered nurses' and lecturers' challenges • Support system challenges
Explore and describe experiences of registered nurses and lecturers on the facilitation of clinical nursing education of student nurses in practice	Qualitative • Participants experienced student nurses' challenges affecting students' learning ○ Poor interpersonal relationships ○ Lack of students' commitment and interest towards learning ○ Unpreparedness among student nurses ○ High number of student nurses ○ Lack of peer support among student nurses ○ Emotional reactions of student nurses ○ Unprofessional conduct of students • Participants experienced challenges related to support system ○ Shortage of staff	• Challenges affecting students' learning ○ Poor interpersonal relationships ○ Lack of commitment and interest ○ Lack of preparedness ○ High number of students ○ Lack of peer support ○ Emotional reactions • Support system challenges ○ Shortage of staff	• Student nurses' challenges (objectives 2, 3 and 4) ○ Poor interpersonal relationships ○ Lack of commitment to and interest in learning ○ Lack of preparedness among students ○ High number of students ○ Lack of peer support among students ○ Emotional reactions of student nurses ○ Peer influences among student nurses	

Objective	Findings	Conclusion	Merging	Best practices and challenges
	○ Lack of materials and equipment ○ Insufficient time to facilitate clinical nursing education ○ Discrepancies between theory and practice ○ Inadequate supervision and follow up of students • Participants experienced registered nurses' and lecturers' challenges affecting students practical learning ○ Poor interpersonal relationships ○ Lack of role clarity ○ Lack of clinical supervision ○ Inadequate knowledge of staff in facilitating clinical nursing education ○ Lack of knowledge and skills.	○ Ratio of students versus lecturers and clinical instructors ○ Lack of materials and equipment ○ Inadequate time ○ Lack of integration of theory with practice ○ Lack of clinical supervision and follow up of students • Registered nurses and lecturers' challenges ○ Poor interpersonal relationships ○ Lack of role clarity ○ Lack of clinical supervision	○ Unprofessional conduct of student nurses • Registered nurses' and lecturers' challenges (objectives 2, 3 and 4) ○ Poor interpersonal relationship challenges hampering facilitation of clinical nursing education ○ Lack of clinical supervision of student nurses ○ Lack of motivation towards teaching ○ Inadequate knowledge and skills to facilitate clinical education ○ Poor communication ○ Lack of role clarity of registered nurses ○	
Explore and describe experiences of nursing students of clinical education provided to them by registered nurses	Qualitative • Interpersonal relationships ○ Negative attitudes of registered nurses and nursing students ○ Poor interaction between students and registered nurses • Support system challenges ○ Overcrowded clinical facilities by large number of students ○ Insufficient time of clinical allocation	• Interpersonal relationships ○ Attitude ○ Interaction ○ Emotional reactions • Support system challenges ○ Overcrowding ○ Time ○ Skills ○ Staff shortages ○ Equipment ○ Workload ○ Integration	• Support system challenges affecting facilitation of clinical education (objectives 2, 3 and 4) ○ Resources ○ Shortage of staff ○ Lack of materials and equipment ○ Inadequate time ○ Workload ○ Lack of integration of theory with practice	

Objective	Findings	Conclusion	Merging	Best practices and challenges
	○ Lack of time to teach students ○ Inappropriate clinical teaching skills by registered nurses ○ Shortage of clinical staff ○ Lack of materials and equipment ○ Lack of integration of theory with practice ○ Workload of registered nurses • Registered nurses' challenges ○ Lack of motivation towards facilitation of clinical nursing education ○ Poor communication ○ Insufficient knowledge of procedures. ○ Lack of teaching skills	• Registered nurses' related challenges ○ Motivation ○ Knowledge and skills ○ Communication	○ Inadequate opportunities for learning ○ Poor clinical learning environment ○ Lack of continuing professional development These are fully described in Chapter 5.	
Assess the clinical environment where clinical education takes place	Quantitative <u>Part 1 Students</u>: • Clinical environment ○ Non-conducive 26.9% ○ Conducive 73.1% ○ Ward of attachment p-value=0.047 • Integration of theory and practice ○ Poor 20.4 ○ Good 79.6 • Opportunities for learning ○ Inadequate 38.0 ○ Adequate 62.0 • Registered nurses' knowledge and practices ○ Low 6.5	• Support system ○ Clinical environment ○ Conducive versus non-conducive ○ Poor integration of theory with practice (20.4%) • Inadequate opportunities for learning (38.0%) • Registered nurses' related challenges ○ Average knowledge and practices (85.2%) • Interpersonal relationships		

Objective	Findings	Conclusion	Merging	Best practices and challenges
	○ Average 85.2 ○ High 8.3 • Interpersonal relationships ○ Poor 71.3 ○ Good 28.7	○ Poor interactions (71.3%)		
	<u>Part 2 Registered nurses</u> • Number of registered nurses in the department/facility ○ Less than or equal to 4 8.7% ○ 5 - 9 = 40.5% ○ 10- 19 = 27.7% ○ 20 or more = 22.5% ○ p-value=0.008 • Health facility p-value=0.045 • Ward p-value=0.048 • Formal training in clinical education/instruction ○ Yes 28.7% ○ No 71.1% • Recently studying ○ Yes 3.5% ○ No 95.4% • Course pursued ○ Nursing education 1.2% ○ Others, 2.3 % • Internet connectivity at workplace ○ Yes 39.3% ○ No 60.1% • Workshops/training in nursing education ○ Yes 18.5% ○ No 80.9% • First or last workshop/training in nursing education	• Support system challenges ○ Inadequate number of the R/N (40.5%) ○ No formal training in clinical education (71.1%) ○ No continuing education or professional development R/N (95.4) ○ Inadequate resources (60%) • Interpersonal relationship challenges ○ Poor 10.4% • Registered nurses' challenges ○ No formal training (71,1%) ○ Inadequate professional development (80,9%)		

Objective	Findings	Conclusion	Merging	Best practices and challenges
	○ Less than or 1 year before 11.6% ○ 2 - 3 years before 9.5% ○ 4 or more years before, 1.2% • Workshops/training in clinical instruction ○ Yes 0% ○ No 100% • Students' practices during clinical attachment ○ Bad 25.4% ○ Good 74.0% • Interpersonal relationships between students and registered nurses ○ Poor 10.4% ○ Good 89.0%	• Support system challenges ○ Lack of continuing professional development (100%)		

4.10 SUMMARY

This chapter presented the findings of the study according to Objective 1 in relation to the experiences of registered nurses, nursing students and lecturers on the facilitation of clinical nursing education. It presented the themes and sub-themes that emerged from focus group discussions and interviews. Relevant literature was consulted in order to reinforce the study findings with existing knowledge. The chapter further presented the descriptive analysis of the self-administered questionnaire to assess the clinical environment. The following chapter deals with the development of a conceptual framework for registered nurses to facilitate clinical nursing education of nursing students.

CHAPTER FIVE

CONCEPTUAL FRAMEWORK AND RESEARCHER'S MENTAL MAPPING

5.1 INTRODUCTION

The previous chapter presented the discussion of the results of both the qualitative and quantitative study as well as the merging of the findings. This chapter involves Phase Two of the research study and focusses on the conceptual framework of the study which forms the basis of the development of guidelines for registered nurses to facilitate the clinical nursing education of nursing students during clinical attachment. Constructing a conceptual framework is important because it helps to justify the research study. The findings obtained from Phase One were used to inform and develop the conceptual framework.

5.2 DEVELOPMENT OF A CONCEPTUAL FRAMEWORK AND RESEARCHER'S MENTAL MAPPING

A conceptual framework is an abstract and logical structure of meaning which guides the development of a study and enables the researcher to link the findings to the body of knowledge (Grove et al., 2019). It explains the activities that are aimed at achieving the objectives. The conceptual framework in this study was based on the themes and sub-themes that emerged from the qualitative analysis and the findings obtained from the quantitative analysis. The conceptual framework of this study was developed according to the six-survey list of Practice Oriented Theory as proposed by Dickoff et al. (1968). The survey list consists of the following questions: who or what performs the activities (agent); who or what is the recipient of the activity; in what context is the activity performed (framework); what is the guiding procedure, technique or protocol of the activity (procedure); what are the energy sources for the activity (dynamics); and what is the end product of the activity (terminus). The conceptual framework is important because it serves to link central concepts that were identified from the conclusions of the study and places them into a new structure of meaning.

The researcher created a mental map based on the concepts of Dickoff et al. (1968). A mental map is defined as a schematic structure for representing a set of concept meanings that are embedded

in a framework of proportions (Daley, Morgan & Black, 2016). In this study, the mental map refers to the interaction between the agent and recipient and is contextualised within a specific situation and process. In this study, the mental map comprised the following elements: agent (researcher, nurse educator, registered nurse); recipient (nursing student); context (clinical learning environment); procedure (process followed in developing guidelines); dynamic (best practices, challenges); and terminus (developed guidelines). The value of the mental map is that it allows individuals to understand the relationship between concepts and provides a direct, real-time view of the thought processes involved (Davies, 2010). According to McMillan (2010), the mental map allows for the development and understanding of the relationship among different areas of information, thereby enhancing, reinforcing and improving knowledge. Figure 5.1 represents the mental map with its elements described below.

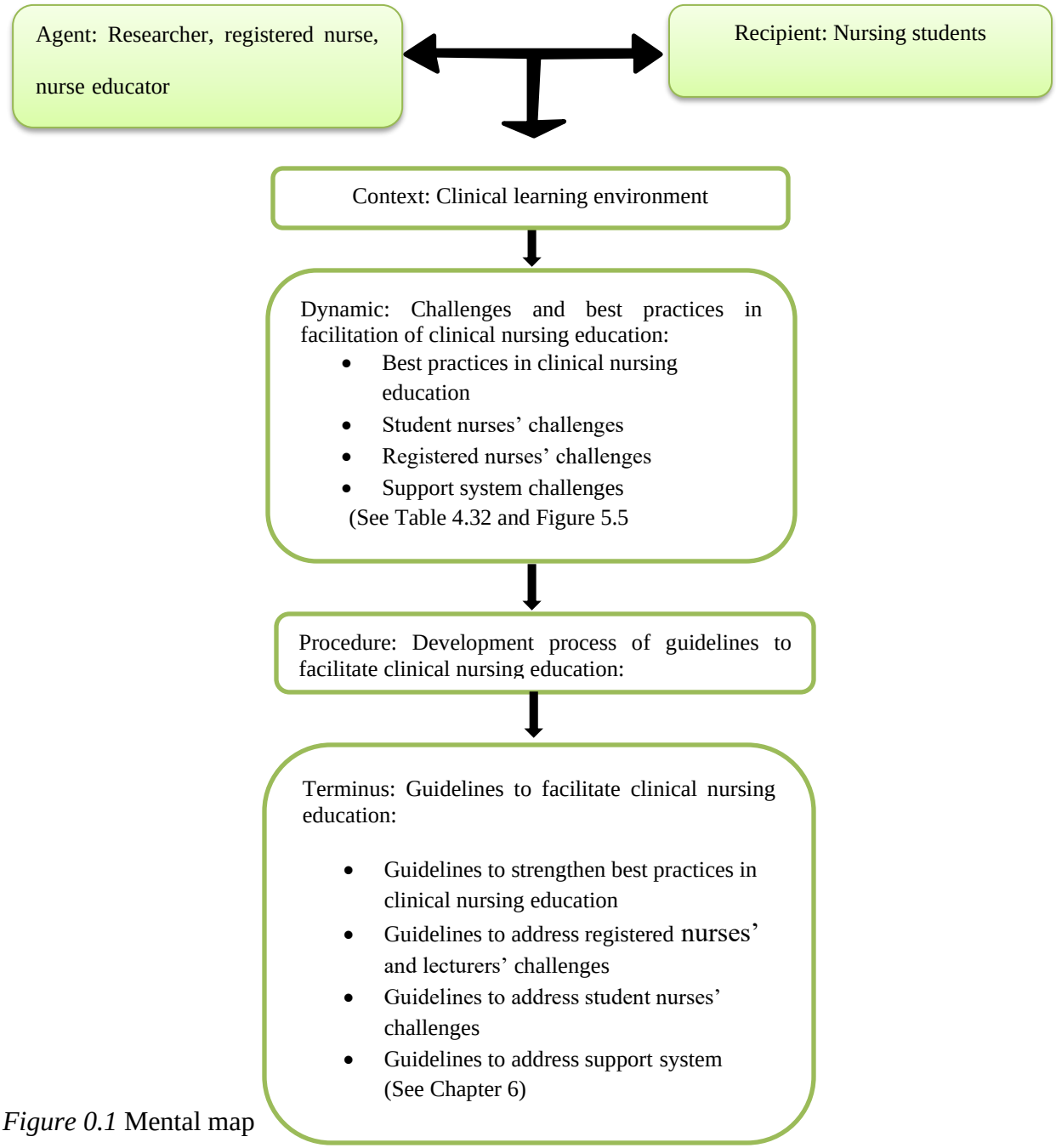

Figure 0.1 Mental map

5.2.1 Agent: Researcher, nurse educator, registered nurse

Dickoff et al. (1968) define 'agent' as a person who performs an activity towards the realisation of the intended goal. In this study, the agent refers to the researcher, registered nurse or nurse educator who has to implement the guidelines in facilitating clinical education of nursing students during clinical attachment. An agent is an appropriate qualified researcher, registered nurse or

nurse educator who has received preparation for ensuring that nursing students have sufficient relevant experience to enable learning outcomes to be achieved and are skillful in clinical practice. Registered nurses and nurse educators are instrumental in helping nursing students to combine the use of cognitive, psychomotor and affective skills needed to care for clients and patients holistically (Niedderriter, Eyth & Thoman, 2017). The role of the agent is to facilitate personal and professional growth, provide support and help the development of autonomy in the nursing students. It is for this reason that the agent should possess certain qualities that would enable effective facilitation of clinical education. Figure 5.2 illustrates the qualities an agent should have.

Figure 0.2 *Qualities of an agent*

5.2.1.1 Interpersonal relationships

Good interpersonal relationships have a positive impact on the successful implementation of the guidelines. A good interpersonal climate enables the establishment of a dialogue with the recipients. The agent needs to create an environment that promotes a trusting and caring relationship and provides opportunities for reflection. The agent should be able to inculcate a sense of active participation in recipients by providing opportunities for stakeholders to contribute to the improvement of the guidelines. Alamri et al. (2019) state that in order to maintain good interpersonal relationships the agent should be available and be accessible to help and guide the recipients to implement the guidelines. Good interpersonal relationships with registered nurses,

lecturers and nurse educators and other stakeholders will enable the agent to implement the guidelines effectively.

5.2.1.2 Communication skills

Communication skills refer to how actions are used in sending messages (Alhassan, 2019). Good communication is regarded as a prerequisite for building a genuine and meaningful relationship (Kourkouta & Papathanasiou, 2014). It enables the transfer and receipt of information. Communication skills such as listening, probing, paraphrasing and questioning enable the agent to create a positive relationship with the recipient that allows for positive interaction and the sharing of information. The agent should be able to initiate discussions with the recipients in order to gain their trust and attention. The agent's verbal and non-verbal communication need to be taken into account during the facilitation process. The body language, voice tone and facial expressions convey messages that are interpreted and understood by the recipients. Therefore, the agent should always communicate effectively in order to convey information to the recipients.

Listening is a very important element of communication. "It requires concentration of attention and mobilisation of all the senses for the perception of verbal and non-verbal messages" (Kourkouta et al., 2014, p66). Moreover, active listening recognises that an agent's message contains both verbal and non-verbal content as well as a feeling component (Massa & Mengjo, 2016). Therefore, the recipient should be aware of all components of communication in order to comprehend the total meaning of the message. By listening, the agent assesses the situation and problems of the recipients and by so doing enhances the integration of recipients' information in the implementation of the guidelines. It is thus critical for the agent to possess good listening skills.

Questioning is an expression of enquiry that calls for a reply. It is critical to the implementation of the guidelines because it allows the recipients to give their views and discuss their own experiences thereby allowing active involvement in the implementation process of the guidelines. Furthermore, questioning gives the recipients an opportunity to openly express ideas and thoughts, thereby stimulating their creative thinking. Effective questioning stimulates thinking, enhances cognitive ability and helps recipients develop reasoning ability. According to Kourkouta et al.

(2014), effective questioning includes well-constructed, probing questions that allow for further clarification or elaboration.

5.2.1.3 Facilitation skills

"Facilitation is the process of helping and guiding students individually or in groups to work effectively to achieve the learning outcomes" (Muthathi et al., 2017, p2). Facilitation plays a very important role in the implementation of the guidelines. The agent should possess facilitation skills in order to help and guide the recipients to successfully implement the guidelines. According to Ahmed et al. (2019), facilitation skills are important because they create an atmosphere that facilitates the learning process.

The agent should have the ability to facilitate effectively in order to produce knowledgeable, competent and skilled nurses who are able to provide safe and quality nursing services to families and communities (D'Costa & Swarnadas, 2016). The agent should be well-informed, able to give valuable advice, supportive and encouraging (Hayajneh, 2011; Nelson, 2011; Sabog et al., 2015). The agent should strive to train caring nurses by creating learning opportunities and promoting problem-solving skills (Nazari et al., 2015). According to Mutair (2015), effective facilitators present information in an organised manner, give clear explanations and directions to the nursing students, answer questions clearly and demonstrate procedures and other care practices. Nursing students come from a wide range of backgrounds, thus the agent needs to demonstrate patience and understanding when teaching (Parsh, 2010). The agent should encourage nursing students to reflect on their progress towards their professional roles and responsibilities and stimulate their interest, encourage participation in discussions and assist them to recognise and make use of learning opportunities (Nelson, 2011). The agent should be well prepared for teaching, promote students' independence, encourage a climate of mutual respect and be organised (Soriano et al., 2017).

5.2.1.4 Theoretical knowledge and clinical competence

The agent should demonstrate outstanding levels of clinical knowledge and skills (Burgess et al., 2015) and possess current knowledge to enable application of clinically applicable knowledge during implementation of the guidelines. According to Reising et al. (2018) the nurse educator

should be knowledgeable and have the ability and skills to convey the content of the subject to the student. A knowledgeable agent interacts with nursing students, communicates professionally and collaborates to generate learning opportunities for student nurses (Nazari et al., 2015; Alamri et al. (2019). The agent should be able to convey knowledge to the nursing students, which implies that the recipient should possess teaching skills.

It is important for the agent to improve competence and utilise it in daily practice. Competence is ability acquired through experience and learning and "comprises a set of knowledge, skills, attitudes, experience, characteristics and abilities to achieve the required goal" (Gunawan, Aungsuroch, Fisher, Marzilli & Liu, 2020, p624). Nursing competence is a complex integration of relevant knowledge, professional judgment, attitude, values including clinical, interpersonal and technical skills, all of which are necessary conditions for performing in real clinical environments (Fukada, 2018). The agent should strive to produce thoughtful nurses by creating learning opportunities and promoting problem-solving skills (Nazari et al., 2015).

In addition to having knowledge, the agent needs to be competent. Competence includes the notion of the abilities or capabilities being applied to the performance of a task or activity (Fukada, 2018). Furthermore, Ahmed, Abd el-rahman, Abood and Abd el-baset (2019) state that when the agent is competent, they can easily establish a safe working environment thereby facilitating clinical learning. Therefore, the agent should have the capability to develop and facilitate the implementation of the guidelines. In addition to knowledge and competence, other skills such as planning, management, critical thinking and problem-solving are equally important for the successful development and implementation of the guidelines. In this study, the researcher obtained sufficient evidence from the study about the challenges faced by registered nurses and student nurses. Hence, the guidelines were developed according to the identified challenges.

5.2.1.5 Assessment skills and feedback

'Assessment' refers to a systematic and continuous process used to measure, document and evaluate the effectiveness of teaching methods, learning processes and identification of the learning needs of students in order to facilitate learning (Murtagh & Webster, 2010). Assessment is an important part of nursing conducted to evaluate the effectiveness of the theoretical and practical knowledge of student nurses. The agent should therefore possess assessment skills to be

able to objectively measure and judge the student nurses' knowledge, skills and abilities. Evaluating nursing students based on their clinical performance is crucial. The agent should be unbiased when evaluating nursing students and be motivated to bring out the best in them (Sabog et al., 2015).

Feedback is a process of communication that helps the person consider a modification of behaviour and gives information about how they are perceived by others (Townsend & Morgan, 2013). Feedback persuades the person to perform well by giving information about their performance and clarifies any deviations between preferred and actual behaviour (Panneerselvam, 2018). According to Segoe (2013), feedback is one of the skills needed in nursing practice and if the educator fails to provide it this will lead to mixed messages and false assessment. Burgess et al. (2015) are also of the opinion that providing feedback helps the students to know how they are performing and enables them to restructure their understanding and build a strong vision. The agent should objectively provide proper feedback to the nursing students in a polite manner for the improvement of their performance (Alamri et al., 2019).

Feedback involves two-way communication in learning based on the assessment made during which the educator provides specific information to the nursing student that fills gaps in learning to enable the nursing student to reach the defined goal (Panneerselvam, 2018). Feedback is an essential part of nursing education in which the agent is expected to provide feedback in a positive, constructive and helpful manner. The agent should be able to translate and interpret various situations experienced by nursing students throughout their clinical placement (Elahi, Adineh & Rasooli, 2016). Provision of timely, regular and specific feedback to nursing students enables them to learn from their mistakes, maximise their potential and professional development and provide direction that increases motivation, confidence, self-esteem, cognitive skills and behaviour (Billings & Halstead, 2015; McKimm, 2013). Feedback provided to nursing students is considered to increase their awareness of the gap between their knowledge and skills and their goals (McNaught & Benson, 2015). Furthermore, constructive feedback could bridge the gap between what the nursing student knows and what they need to know (Ravik et al., 2021).

5.2.1.6 Role modelling

"A 'role model' refers to the person who sets a positive example and is worthy of imitation" (Nouri, Ebadi, Elhani, Rejeh & Ahmadizadeh, 2013, p137). According to Jack et al. (2017, p4708), "a role model is a person worthy of emulating, a positive example of a member of a profession". Moreover, "modelling is defined as the observation of behaviours or attitudes of someone that one admires and the subsequent adoption of those observations or attitudes for oneself" (Baldwin, Mills, Birks & Budden, 2013, p1). 'Role models' in the present context refers to individuals who are adequately prepared and who provide formal support and ongoing professional development for recipients as essential support strategies for ensuring that they receive appropriate learning experiences. Role modelling does not only denote the fact that agents convey factual information to student nurses, but also that they motivate, engage and challenge student nurses for effective learning (Nouri et al., 2013). Role modelling focusses on the fact that student nurses would try to imitate the agent's behaviour because of their respect and trust in the agent. It also enables the recipients to share with others the values of clinical nursing education.

The agent should demonstrate the qualities of a positive role model. Being a good role model is a sign of the agent's competence in facilitating teaching and clinical aspects (Nouri et al., 2013). Establishing a good rapport with nursing students, creating a supportive learning environment, developing effective teaching methods and being committed to the academic and professional development of nursing students are important aspects of role modelling (Burgess et al., 2015). Another important quality is integrity which includes behaviour such as admitting mistakes, treating people fairly, being an authentic and genuine person and giving others credit, especially during the implementation of the guidelines, when the agent should demonstrate confidence (Johnson, 2015).

5.2.1.7 Personal attributes

Personal attributes are characteristics or personal traits that an individual possesses. The agent should possess attributes that will enhance the successful implementation of the guidelines. Therefore, the agent should be supportive, committed, trustworthy and neutral in order to support and guide recipients in facilitating clinical nursing education to enable them to become competent and confident. Evidence from previous studies indicates that registered nurses felt unsupported

and were unprepared to facilitate clinical education (Newton et al., 2018). The lack of support has negative consequences for the successful facilitation of clinical education. Moreover, the agent should be committed towards the implementation of the guidelines.

Another attribute that the agent should possess is trustworthiness. Trust is essential to human relationships and in service delivery. Trust must direct activities towards meeting needs and resolving problems. Trust always involves a certain amount of risk and a willingness to risk abuse; therefore, a trusting relationship requires the agent to be trustworthy (Dinc & Gastmans, 2012). An agent must cultivate a culture of trust in order to achieve the intended goal which is the development and implementation of the guidelines. Another important attribute of an agent is neutrality which implies treating all people equally, without taking sides. Thus, the agent should be objective and impartial during the implementation of the guidelines. Furthermore, the agent should have good interpersonal relationships, leadership skills, integrity, dedication, honesty and be able to inspire the recipients (Burgess, Goulston & Oates, 2015).

5.2.2 Recipient: Nursing students

A recipient is a person who is receiving action from an agent (Dickoff et al., 1968). In this study 'recipient' refers to nursing students who will receive clinical facilitation from nurse educators and registered nurses. The nursing students are expected to possess qualities that would promote acquisition of clinical knowledge, skills and attitudes during clinical nursing education. The qualities of the recipient are illustrated in Figure 5.3.

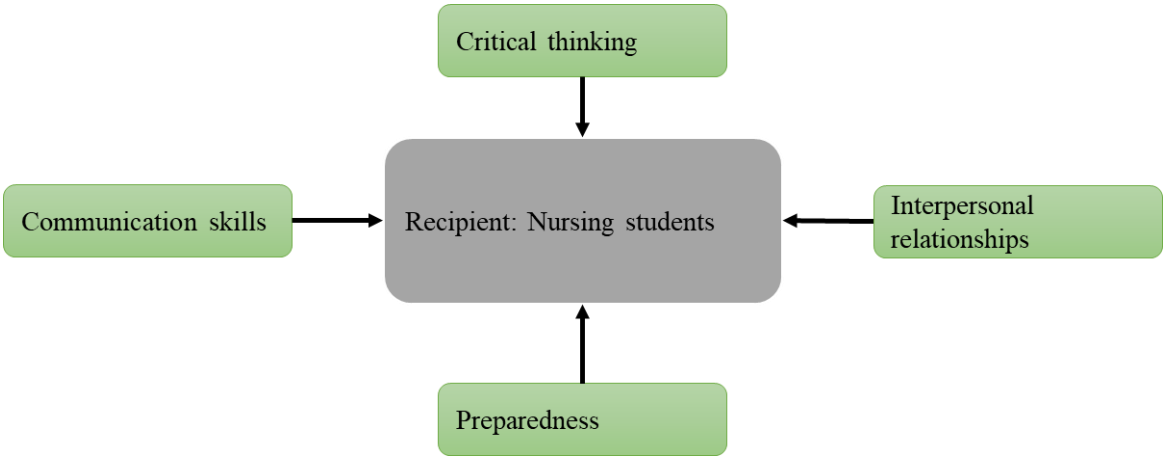

Figure 0.3 Qualities of recipient.

5.2.2.1 Critical thinking

"Critical thinking is an essential process for safe, efficient and skilful nursing practice" (Papathanasiou, Kleisiaris, Fradelos, Kakou & Kourkouta, 2014, p286). According to Sullivan (2012, p1), "critical thinking is purposeful, self-regulatory judgment which results in interpretations, analysis, evaluation and inferences". Critical thinking of nursing students ensures quality nursing care (Miertrove & Lepiesova, 2013) as cited in Ngonyani, Mwaura and Mutunga-Mwenda (2017). According to Pretorius, Van Dyk, Small and Amukugo (2016), critical thinking is one of the skills and competencies required of a recipient to cope appropriately with the day-to-day nursing practice. Therefore, to enhance outcomes, the recipient should adopt attitudes that promote critical thinking and mobilise the skills of critical reasoning in order to solve clinical problems and make decisions creatively.

The recipient should be skilled in high-level reasoning abilities because modern health care demands critical thinking, as recipients are involved in making decisions relating to their professional practice. The recipient should use critical thinking skills to vigorously investigate and reflect on all aspects related to facilitation of clinical nursing education. in order to enhance clinical learning.

5.2.2.2 Communication skills

Communication skills are regarded as one of the most important factors in building relationships (Mamaghani, Rahmani, Hassankhani, Saunders, Dean, Ferguson & Irajpour, 2019). Effective communication skills are fundamental for successful facilitation of clinical nursing education as it reduces stress and creates more learning opportunities for nursing students (Nazari et al., 2015). Nursing students need to demonstrate a respectful attitude towards the registered nurses and nurse educators. Nursing students, as recipients in this study need to develop effective communication skills that will enable successful facilitation of clinical nursing education.

5.2.2.3 Interpersonal relationship

"Relationship is the way in which two or more people are connected, or the state of being connected" (Froneman et al., 2016, p3). In this study, 'relationship' refers to the interpersonal and professional relationships between agent and recipient. Furthermore, interpersonal relationships

entail developing relationships characterised by empathy, honesty, trust, tolerance and awareness (El Said et al., 2018). A good interpersonal relationship between agent and recipient is essential for building trust and has mutual benefits such as enhancing knowledge and skills and improving critical thinking and clinical reasoning (Mamaghani et al., 2019). Good interpersonal relationships provide the basis for effective and open communication between the agent and the recipients. Effective interpersonal relationships enhance teamwork between agent and recipients during facilitation of clinical nursing education.

5.2.2.4 Preparedness

To enable effective facilitation of clinical nursing education to occur, the recipient should be prepared for clinical practice and learning. Preparedness is "the ability to develop critical skills, integrate theory with practice, apply problem solving skills, develop interpersonal relationship skills and become socialized into the formal and informal norms, protocols and expectations" (Cohen, Justice & Dempsey, 2014, p237). The recipient's preparedness for clinical practice and nursing education is one of the most important factors that define the quality of clinical nursing education (Joolae, Amiri, Farahani & Varaei, 2015). A nursing student who is prepared for clinical nursing education shows progress, willing to learn, accept feedback, is eager to learn and adapt easily to the learning experience (Lewallen & DeBrew, 2012). The recipient should show readiness for clinical nursing education in order to ensure receipt of clinical skills and experiences.

5.2.3 Context: Clinical learning environment

Dickoff et al. define 'context' as the environment in which an activity takes place. The context in this study refers to the clinical learning environment or health facilities in Oshana and Oshikoto regions where nursing students are allocated for clinical learning purposes and where facilitation of clinical education takes place. These include health facilities such as hospitals, health centres and clinics where students are allocated to learn the art of nursing. It is important to note that hospitals or health facilities are institutions that provide health care to patients and clients but that they also have other functions such as teaching. Health facilities provide nursing students with opportunities to develop competencies and combine cognitive, psychomotor and affective skills

for the safe delivery of care. It is evident from this study that there are contextual factors that influence facilitation of clinical nursing education, as shown in Figure 5.4.

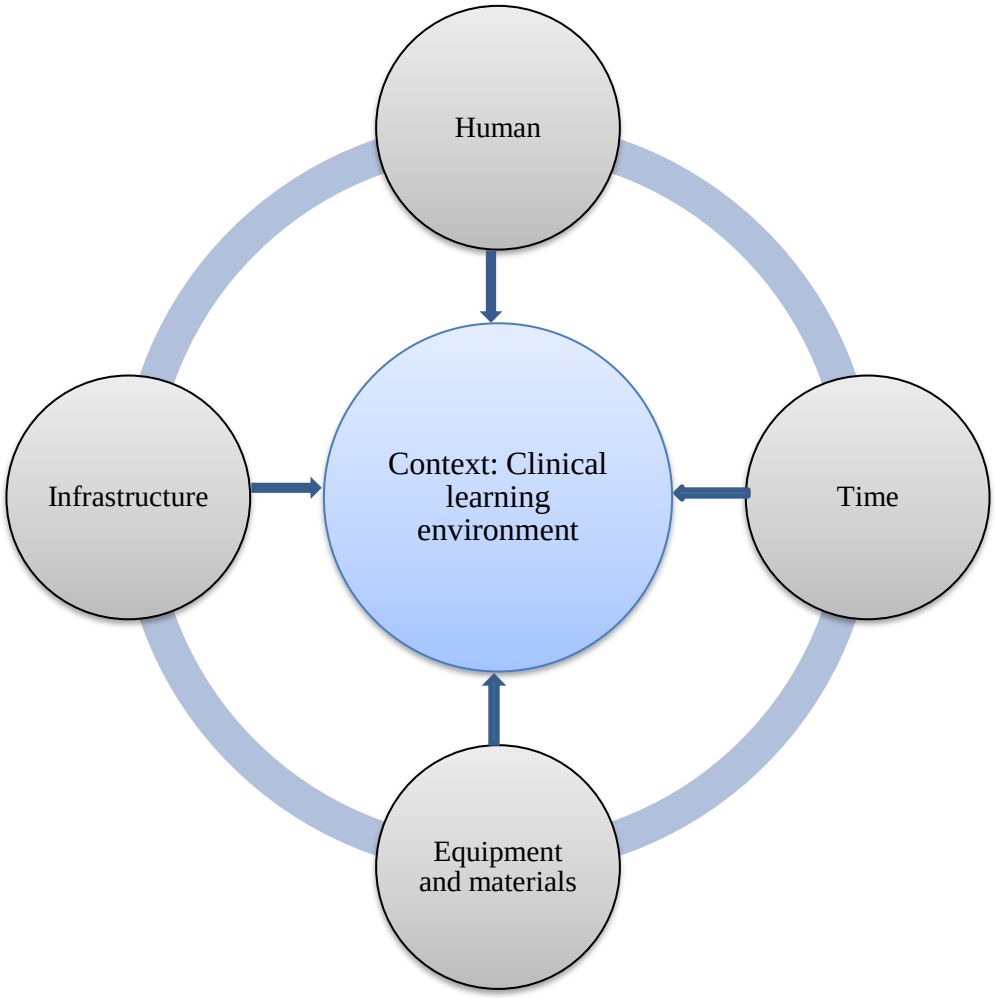

Figure 0.4 Context

5.2.3.1 Human

Human resources comprise individuals with the required expertise needed to execute the planned activities of clinical nursing education (RNAO, 2012). In this study, 'human resources' refers to the registered nurses and nurse educators who facilitate clinical nursing education in the clinical learning environment. Human resources are crucial for effective facilitation of clinical nursing education and implementation of the guidelines for registered nurses. The context should have adequate staff to support and guide students during clinical attachment. In addition, nurses should

be able to implement the guidelines in order to enhance facilitation of clinical nursing education. However, according to Gemuhay et al. (2019), staff shortages and workload impede effective facilitation of clinical education.

5.2.3.2 Time

"Time is a dimension and measure in which events can be ordered from the past through the present into the future and is also the measure of the duration of events and the intervals between them" (Christopoulos, 2014, p1). Time is a very important resource for maximising the learning outcomes of nursing students during clinical allocation. For effective facilitation of clinical education to take place, sufficient time should be devoted for this function. Diogo, Caeiro, Rodriques and Lemos (2016) indicated that the major constraint affecting the facilitation of clinical nursing education is the limited time available to devote to the teaching function of nursing students. In this study, it came out that limited time due to busy wards and high patient volumes negatively affects facilitation of clinical nursing education. Therefore, time management is important in improving the quality of facilitation of clinical nursing education.

5.2.3.3 Equipment and materials

Adequate working materials and equipment are crucial for effective facilitation of clinical nursing education of nursing students during clinical attachment. Ata et al. (2011) are of the opinion that quality clinical education is influenced by the availability of basic working and teaching equipment as it will enable registered nurses to effectively teach and demonstrate appropriate skills. The absence of sufficient equipment and materials has numerous consequences for the quality of facilitation of clinical education because it impairs effective teaching and learning in the clinical environment leading to poor teaching outcomes. According to Eta et al. (2011), lack of working equipment and inadequate teaching materials hinder effective facilitation of clinical education. In this study, equipment includes stethoscopes, baumanometers, thermometers, hospital beds and trolleys, while materials include clinical supplies such as protective gear, dressing packs, cotton wool, swabs, gauze, needles, syringes and disinfectant.

5.2.3.4 Infrastructure

Infrastructure should support teaching and learning of nursing students during clinical attachment. Thus, the environment in which teaching and learning take place needs to be enhanced in order to provide a conducive and supportive setting in which both the nursing student and registered nurse feel safe to carry out their functions. Gemuhay et al. (2019) are of the opinion that well-equipped skills laboratories are important facilities in clinical nursing education. Old and dilapidated infrastructure and inadequate space for teaching purposes may hamper effective facilitation of clinical education (Eta et al., 2011). In this study, infrastructure includes sufficient space or room for clinical nursing education purposes.

5.2.4 Dynamic: Best practices in clinical nursing education and challenges

According to Dickoff et al. (1968), 'dynamic' refers to the energy that sustains an activity. The dynamics in this study were derived from the themes that emerged and included the motivating factors for clinical nursing education and the challenges experienced by registered nurses, lecturers and nursing students in the clinical environment that hinder effective facilitation of clinical nursing education. To improve clinical nursing education, there is a need to strengthen best practices in clinical nursing education and address challenges experienced by the participants in order to reach better outcomes. Figure 5.5 indicates the dynamics that affect clinical nursing education.

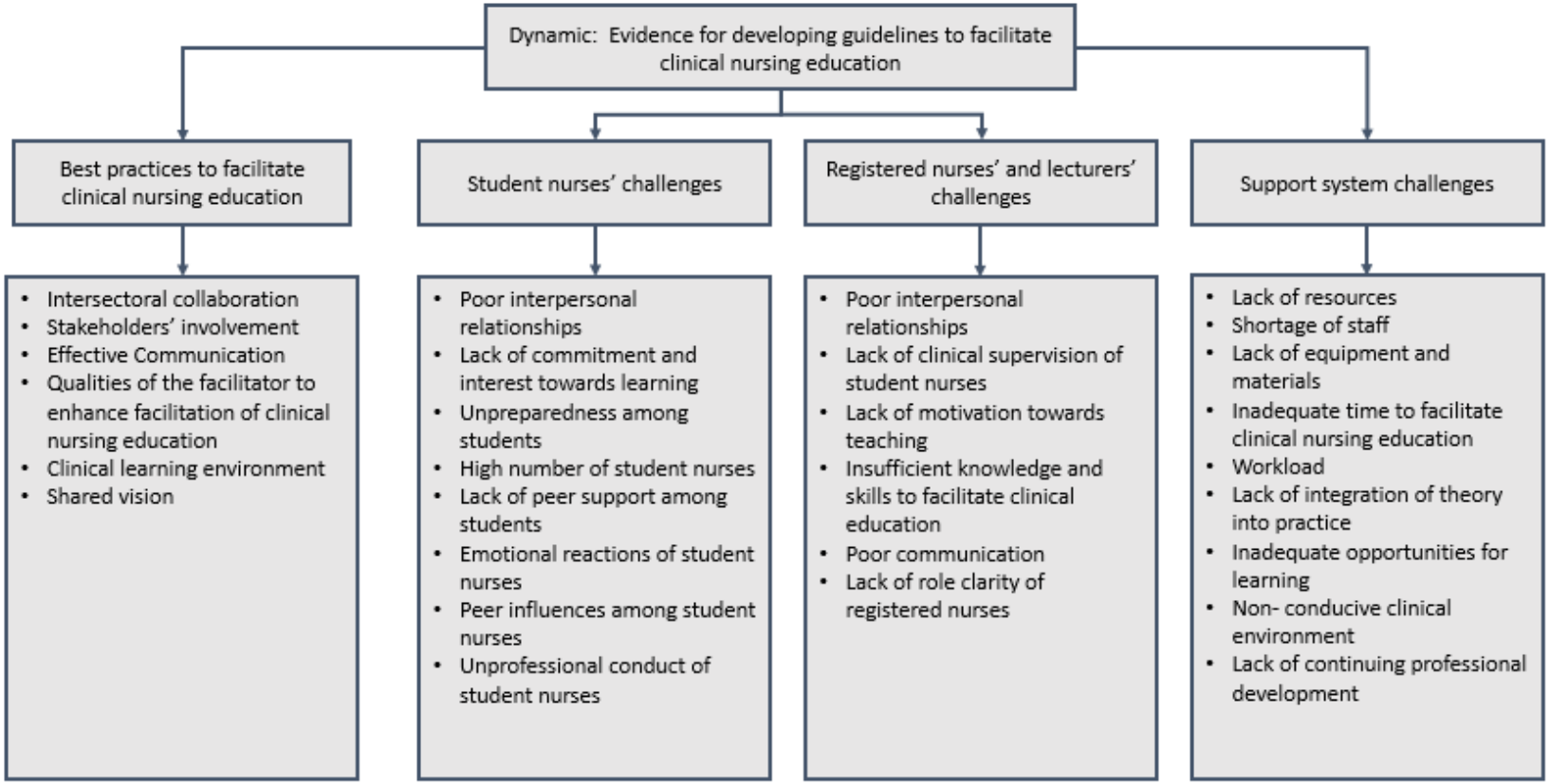

Figure 0.5 Dynamic: Best practices in clinical nursing education and challenges

5.2.4.1 Best practices in clinical nursing education

"Best practices are the actions and ideas that represent the most efficient, effective or prudent course of action" (Muthathi et al., 2017, p2). Facilitation of clinical nursing education is an essential part of the undergraduate nursing curriculum and is regarded as a vehicle to achieve the clinical teaching component (Muthathi et al., 2017; Needham et al., 2016). Therefore, the best practices should be incorporated during facilitation of clinical nursing education in order to enhance clinical nursing education by integrating evidence-based practices during clinical facilitation.

5.2.4.1.1 Intersectoral collaboration

"Intersectoral collaboration refers to collective actions involving more than one agency or sector, performing different roles for a common goal" (Adeleye & Ofili, 2010, p1; Dubois, St-Piere & Veras, 2015). In this study, intersectoral collaboration involves partnerships between MoHSS, UNAM, IUM, WHTC, nursing students and the community. Intersectoral collaboration is important as it creates awareness among partners about the importance of integrating theory and practice in nursing education. Moreover, intersectoral collaboration creates research opportunities for faculties and clinical personnel, thereby improving evidence-based healthcare (Bvumbwe, 2016). Nursing education requires a coordinated and collaborative approach to training nurses (Bvumbwe et al., 2018). The purpose is to facilitate the working together of the nursing educational institutions and other sectors to maximise the use of resources and skills for the production of registered nurses (Direko & Davhana-Maselesele, 2017). Clinical nursing education requires current, valid and relevant evidence-based practices so that student nurses are guided in the best possible way. According to the WHO (2013), as cited in Bvumbwe et al. (2018), educational and training institutions should foster and enhance relationships, interaction and planning between education, health and other sectors. Thorough planning of student nurses' clinical experiences and learning is important in order to ensure that the student nurses derive maximum benefit from clinical nursing education.

5.2.4.1.2 Stakeholders' involvement

'Stakeholder' refers to an individual, organisation, or a group of organisations that have a particular interest or stake in a situation and the potential to prevent or facilitate strategic decisions (Belita, et al., 2020). Meanwhile, "stakeholder involvement refers to the participation of interested groups in planning or the decision-making process" (Hauck, Saarikoski, Turkelboom & Keune, 2016, p1). In this study, stakeholders comprise MoHSS, UNAM, IUM, WHTC, nursing students and patients. Stakeholder involvement offers benefits to patients, student nurses, educational institutions and the health sector in general as it allows all involved parties to reflect on their lived experiences concerning clinical nursing education. Involving nursing students as stakeholders in clinical nursing education can lead to a transformation process for both nursing students and registered nurses. Such involvement may lessen hierarchical structures between the educational institution and nursing students to enhance positive learning experiences and encourage the faculty to think differently about their teaching strategies (Dalrymple et al., 2017; Nosek, Scheckel, Waterbury, MacDonald & Wozney, 2017). Clinical partners such as registered nurses in health care facilities also experience challenges that affect facilitation of clinical nursing education. These stakeholders play a critical role in ensuring that clinical nursing education focusses on knowledge and skills development that adequately prepares nursing students to perform competently in a dynamic health care environment (D'Antonio et al., 2013). Stakeholder involvement is crucial for developing a nursing curriculum that is responsive to the health needs of society as well as the clinical learning needs of nursing students. Stakeholders' involvement provides a platform for all members to capitalise on and benefit from one others' expertise. Furthermore, stakeholder involvement improves access to a range of clinical learning experiences for nursing students as they receive adequate clinical support that is blended with expertise from academic knowledge and practical competencies (Bvumbwe et al., 2018). Moreover, it also provides opportunities for capacity building of the stakeholders for the improvement of clinical nursing education.

5.2.4.1.3 Communication

Communication is the process of transmitting information and common understanding from one person to another (Massa et al., 2016). It is a two-way process that requires the effort and skills of both the registered nurse and the nursing student during clinical nursing education. It entails

active involvement of those to whom the messages are directed; in this context, the nursing students as well as those who initiate them − the registered nurses. Communication is a core component of sound relationships, collaboration and co-operation, which in turn are essential aspects of professional practice (Sibiya, 2018). The quality of communication in interactions between nursing students and registered nurses has a major influence on facilitation of clinical nursing education. Effective communication reduces stress and provides more learning opportunities for student nurses (Allamar, Ahmad, Almutairi & Salem, 2020). It requires an understanding between the nursing students and registered nurse and their experience regarding facilitation of clinical nursing education. Thus, communication requires skills and the intention to understand each other.

5.2.4.1.4 Qualities of a facilitator

Facilitators have the potential to greatly influence the nursing students' clinical learning because they play a crucial role in their professional development. Therefore, facilitators should possess qualities that will enable them to effectively facilitate clinical nursing education. Moreover, their qualities should inspire the nursing students to emulate their example.

Knowledgeability and clinical competence

In a practice-based profession such as nursing, the facilitator should possess knowledge and skills about clinical nursing education and nursing in general (Bruce, Klopper & Mellish 2013). Knowledge of the profession, society and the healthcare system are important components of the facilitator's knowledge. In addition, a facilitator should be clinically competent. 'Competence' is defined as behaviours learned during an educational process, which involves the development of knowledge, skills and attitudes for professional practice (Dos Santos, Copelli, Balsanelli, Sarat, Menegaz, Trotte, Stipp & Soder, 2019). According to Allamar et al. (2020), a competent facilitator is one with scientific and practical abilities, ethical codes and management capabilities. A competent facilitator is able to interact with nursing students and is capable of professional communication through enforcement of teamwork and the creation of more learning opportunities for the nursing students.

Relationships with nursing students

Positive facilitator/student relationships are important for successful clinical learning. The facilitator should be approachable, available, encourage mutual respect, provide support and encouragement and listen attentively to student nurses (Bruce et al., 2013). In establishing a positive relationship with nursing students, the facilitator should respect the nursing students as human beings and be aware that each person is a unique being. It is vital that the facilitator accepts differences among nursing students and respects their right to challenge, ask questions and express their own opinions. However, nursing students' learning is compromised by their relationships with registered nurses when they are unwilling to support and guide nursing students in practice and this leads to demotivation of nursing students towards learning (Mamaghani et al., 2019).

5.2.4.1.5 Clinical learning environment

"Clinical learning environment' refers to the clinical setting where nursing students can learn and develop clinical learning skills in a real-life situation under the guidance of an experienced professional" (Muthathi et al., 2017, p2). In this study, the clinical learning environment refers to the hospitals, health centres and clinics where nursing students are allocated for clinical learning. The clinical learning environment provides opportunities and stimulates nursing students to carry out tasks and situations in the actual practice setting (Martin, Cross, Attoe, 2020). It further offers student nurses the opportunity to integrate theoretical classroom knowledge with the practical skills required to make clinical decisions and provide care in the clinical ward (Allamar et al., 2020). Therefore, clinical practice is a valued learning instrument for enhancing academic knowledge through practice. Moreover, the clinical learning environment should motivate nursing students and contribute to their feeling of security, including asking questions to achieve learning outcomes (Ekstedt et al., 2019). Nursing students should feel secure while in the clinical learning environment where nursing students become acquainted with the realities and functions of nursing. It is in the clinical learning environment that registered nurses, nursing students, lecturers and patients get an opportunity to interact. Vizcaya-Moreno, Perez-Canaveras and de Juan (2018) point out four aspects within the clinical learning environment that influence nursing students' clinical learning experiences and learning: physical space; psychosocial and interactional factors; organisational culture and the teaching/learning process. In order to effectively facilitate clinical

nursing education, all these aspects need to be taken into consideration. Therefore, the clinical learning environment should provide support including human resources, materials and equipment, finance, infrastructure and time in order to enhance facilitation of clinical nursing education. The availability of resources and the effective utilisation thereof are critical for smooth facilitation of clinical nursing education and enhancement of clinical learning. The registered nurse has a responsibility to ensure the availability and utilisation of the resources in the clinical setting.

5.2.4.1.6 Shared vision

"Shared vision is a set of common goals and values that act as a guide to engage members in an organisation in the development for the organisational future" (Klang & Mineur, 2016, p40). Shared vision enhances team performance and it can lead to reduced conflicts and disagreements within a team. It is important that all stakeholders in clinical nursing education share the same vision. As nursing is changing, nurses are required to adopt a shared vision that focusses on enhancing their knowledge of new competencies in clinical nursing education and evidence-based practices (Elfaki, 2019). When nurses have a clear, creative and innovative vision and greater scope to expand their roles, they can deliver impressive results (Elfaki, 2019). Clinical nursing education will prepare and foster the roles of nurses to meet their future vision in a variety of educational, clinical and research settings as necessary steps towards achieving the vision (Gimenes & Faleiros, 2014). In order to achieve the vision of clinical nursing education, registered nurses need to be motivated in order to be able to guide and support student nurses in the clinical area. Advanced nursing education, provision of opportunities and the time for training will improve the standard of nursing services. Registered nurses need to be actively involved in research, to develop, implement and integrate new technologies and best practices to meet the future vision of nursing.

5.2.5 Challenges affecting facilitation of clinical nursing education by nursing students

A challenge is something that, by its nature or character, serves as a serious test and requires thought and skill for resolution (Kaphagawani & Useh 2015). Nursing students are faced with many challenges during their clinical placement in the clinical learning environment. These challenges have a detrimental effect on their clinical learning. Considering these challenges will

assist registered nurses to utilise various approaches that will enhance clinical nursing education. In this study, the challenges that affect nursing students and the facilitation of clinical nursing education were identified as described below.

5.2.5.1 Poor interpersonal relationships

Within the context of this study, interpersonal relationship is a state of reciprocal interest or communication between registered nurses and nursing students (Ahmed et al., 2019). The relationship between registered nurses and nursing students is an important factor in clinical nursing education and in the future nursing workforce. A positive student /registered nurse relationship facilitates productive clinical learning of nursing students (Tuomikoski et al., 2020). It is therefore vital that nursing students share a good relationship with registered nurses as this facilitates good communication between them and enhances the identification of the different learning needs and styles of the students. Positive interpersonal relationships between registered nurses and nursing students can be a strong motivating factor for nursing students' clinical learning (Allamar et al., 2020), while poor interpersonal relationship creates stumbling blocks (Dlama, Molupe & Umar, 2015). Moreover, negative attitudes of nursing students hamper the acquisition of essential skills. Gemuhay et al. (2019) reported that students' attitudes and behaviour largely determine how the registered nurses relate to them and this can have a negative effect on their performance in clinical practice, including the facilitation of clinical education. According to a study by Yousefy, Yazdannik and Mohammadi (2015), many nursing students were not motivated to learn and they displayed negative attitudes and behaviours that consequently impacted their clinical learning.

5.2.5.2 Lack of commitment and interest towards clinical learning

"Commitment is defined as a state of being in which an individual becomes bound by their actions and it is these actions that sustain their activities and involvement" (Awuah-Peasah et al., 2013, p25). Clinical practice in nursing education is important as it aims at actively equipping nursing students with the necessary skills needed for the nursing profession. Student nurses need to be committed to clinical learning if they are to succeed in the profession. According to Younas, Zeb, Aziz, Sana, Albert, Khan, Inayat, Knan and Rasheed (2019), some nursing students take nursing for granted and show no commitment and interest in clinical education. The behaviour of nursing

students, including coming late to work, the use of mobile phones on duty, lack of commitment to clinical work and absenteeism without permission as documented in a study in Ghana, are clear demonstrations of students' lack of commitment towards their studies (Lekalakala-Mokgele et al., 2015). According to Maditjani (2018) student nurses were not keen to acquire knowledge and displayed no commitment, accountability or maturity in relation to their learning in the clinical setting. Thus, lack of commitment and interest in learning can negatively affect the acquisition of clinical skills.

5.2.5.3 Lack of preparedness amongst nursing students

Preparedness is the state of being prepared or ready (Granberg, 2013). In this study, preparedness refers to the state of nursing students' readiness for clinical nursing education and learning. Clinical nursing education plays a fundamental role in student nurses' acquisition of professional capabilities, knowledge, skills, attitudes and values. Preparedness of nursing students for clinical nursing education and learning is one of the most important factors determining the quality of clinical nursing education (Joolaee, Amiri, Farahani & Varaei, 2015). According to Lewallen and DeBrew (2012), nursing students in the clinical learning environment should be prepared to care for patients, dress appropriately, have positive attitudes, communicate effectively and be ready for clinical learning. They should be informed of what is expected of them when they are in the clinical learning environment and what objectives are to be accomplished. The findings of this study discovered that nursing students were unprepared for clinical learning. These findings were supported by a study by Eta et al. (2011) which also revealed that nursing students were not prepared for clinical teaching. Salvi (2019) shared the same view; that many nursing students were not mentally prepared for the clinical learning environment which resulted in a high incidence of psychological problems. Thus, lack of adequate knowledge and skills, as well as mental and psychological preparation disturbs the clinical learning process of the nursing student. Lack of preparedness of nursing students for clinical nursing education and learning may affect the acquisition of knowledge and skills as well as the quality of clinical nursing education.

5.2.5.4 High numbers of nursing students

The number of student nurses allocated to a department should be manageable in terms of supervision and facilitation of clinical nursing education. Daniels et al. (2014) reported that the

high number of nursing students was perceived to increase the workload of registered nurses because students took up time that they would otherwise have spent on patient care. Hence, too many students allocated to a department make it difficult for registered nurses to facilitate clinical nursing education and to supervise them. According to Fadana and Vember (2021), the congestion of students makes it difficult for the registered nurses to teach and supervise properly. Increased numbers of nursing students, few patients and opportunistic teaching at the bedside has been reported to hamper effective clinical nursing education and learning of nursing students (Haider et al., 2020). According to Kaphagawani et al. (2015), too many students result in student nurses finding it difficult to learn and as a consequence they compete for procedures which in turn affect the students' learning negatively. The above findings were supported by Bvumbwe et al. (2018) who reported that an increase in students resulted in a strained clinical learning environment and competition for learning opportunities among nursing students. Moreover, the high number of nursing students led to overcrowding of students in the clinical setting and affected peer support among them which led to conflicts, tension, competition for opportunities and lack of fulfillment of some competencies, which in turn compromised the clinical learning and the care given to patients during clinical practice (Bourgeois et al., 2011). A study conducted by Abdal, Alavi and Adib-Hajgaghery (2015) revealed that students complained that the number of students was too high in the skill labs and as a result they did not get time to practise the skills. Furthermore, the increase in student numbers may lead to nursing students not being properly guided resulting in incompetence in some nursing activities after completion of their training, thus being unable to provide quality care (Kaphagawani et al., 2013). Moreover, a large number of nursing students in a busy ward would make them aimless, because the registered nurses would not be able to support and guide them due to their workload (Allan, Smith & O'Driscoll, 2011). According to Fadana et al. (2021), if there are too many students in one ward, the students get confused and do not know what to do. This situation makes registered nurses relax as student nurses have to do all the work alone without direct supervision.

5.2.5.5 Lack of peer support

"Peer support is a process of mutual support where persons voluntarily come together to help each other address common problems or shared concerns" (Oades, Deane & Anderson, 2012, p185). In this study, peer pressure is defined as social emotional support, together with influential support

that is mutually offered among pre-registration nursing students in order to learn from one another. Peer support is an essential element in clinical learning as it enables nursing students to support, learn and discuss with one another issues related to clinical practice. According to Ekstedt et al. (2019), peer support and learning contribute to the development of the students' abilities to communicate and solve problems. Chuan et al. (2012) revealed that when nursing students network, they are able to support one another by sharing and learning from experience. According to a study by Abdal et al. (2015), students revealed that the senior students were eager to teach them and they gained many skills that helped them to gain clinical self-esteem. Meanwhile, Kaphagawani et al. (2013) are of the opinion that nursing students perform better academically and clinically if they have support from their peers. Students gain many skills by watching what their peers do and this helps them to gain self-efficacy and achieve clinical self-esteem (Lapena-Monux et al., 2016). This aspect is very important because it facilitates clinical learning. According to Luhanga (2017), nursing students reported that they felt more comfortable questioning one another, solving problems and learning from one another during clinical attachment. A study by Bourgeois et al. (2011) shares the same observation that students support one another, discuss clinical matters and share knowledge, skills and experiences. Lack of peer support creates problems for students' clinical learning (Moghaddam, Aghamohammadi, Jafari, Absalan & Nasiri, 2020). Moreover, Bourgeois et al. (2011) indicated that lack of support was manifested by conflicts, tension and competition for opportunities for practice which is detrimental to learning.

5.2.5.6 Emotional reactions

"Emotions are impulses to act; a spontaneous response instilled and triggered by the interpretation of an event" (Ching & Chan, 2020, p3). Clinical nursing education provides students with unique learning opportunities in which classroom theory and skills are put to the test in real life situations; however, student nurses experience some challenges such as being exposed to new events which can cause emotional reactions that can be very stressful, such as stress, tension, fear and anxiety. The causes of emotional reactions may be fear of hurting the patient, not being fully competent in certain procedures, being overloaded with clinical activities and having no opportunities for clinical learning. The findings of this study are supported by Jamshidi et al. (2016) who also discovered that fear of making mistakes and harming patients, academic workload and limited time

allocated for procedures were anxiety-producing experiences for nursing students. According to Joolae et al. (2015), students reported fear and anxiety in the clinical environment, and Fadana et al. (2021) reported that nursing students felt anxious because they were unsure whether they would be able to deliver what was expected of them in clinical practice. Such reactions have an undesirable effect on the nursing students' learning process. Nursing students may lose confidence in the profession and become demotivated to learn as a result of stress and anxiety (Kaphagawani et al., 2015).

5.2.5.7 Peer influences among nursing students

"Peer influence is a pressure used by a peer group to encourage someone to change or achieve their values or desires and it mostly occurs when people provide knowledge, experience, emotional, social or practical help to one another" (Roshan, 2019, p6). According to Arslan, Akca and Baser (2013), nursing students at the university may encounter economic, educational, sexual, academic and environmental adaptation problems. They will probably have insufficient time and opportunities for counselling and activities outside regular class sessions and experience a lack of trust and respect for themselves. All these factors will affect the students' academic performance negatively.

Peer influences among nursing students can be either positive or negative. Positive peer influences induce nursing students to participate in clinical learning activities and improve their academic performance, while negative influences have detrimental effects on the nursing students' academic and clinical performance. Mapesa (2013) indicated that peers who are interested in academic issues are more likely to associate with students who have the same interest and as a consequence, they will influence one another in a positive way that will improve their academic performance. According to Pinehas, Mulenga and Amadhila (2016), negative peer influences result in absenteeism, poor study habits and lack of concentration among students which influences academic performance. It was also established that peer relationships, socialisation, environment and drug use had a great influence on students' academic performance (Roshan, 2019). Nursing students should therefore be encouraged to associate with peers who are making a positive contribution to their lives and academic performance.

5.2.5.8 Unprofessional conducts of nursing students

Unprofessional conduct refers to conduct that is contrary to the accepted and agreed practice standards of the profession (Nursing and Midwifery Board of Australia, 2010). Nursing as a profession is rooted in professional ethics, ethical conduct, and nursing performance is based on such values (Poorchangizi, Borhani, Abbaszadeh, Mirzaee & Farokhzadian, 2019). Therefore, nursing students are required to conduct themselves professionally in order to uphold ethical values and enhance the image of the nursing profession. These ethical values include altruism, autonomy, human dignity, integrity, honesty and social justice (Poorchangizi et al., 2019). It is thus important that nursing students conduct themselves professionally and uphold ethical values during clinical practice. Professional conduct between nursing students and registered nurses enhances good communication and interpersonal relationships. Conversely, improper conduct of nursing students such as absenteeism, failure to arrive timeously on duty, taking extended breaks while on duty, neglecting and failing to conduct duties as assigned, have been reported and are believed to have negative consequences on the facilitation of clinical education as it demotivates registered nurses to teach (Maditjani, 2018). According to Eta et al. (2011), lack of professionalism among nursing students during clinical practice is demonstrated by absenteeism, lack of respect for staff and unwillingness to learn. Such conduct has detrimental effects on the nursing students' clinical learning.

5.2.6 Challenges affecting facilitation of clinical nursing education by registered nurses and lecturers

Clinical nursing education is a vital component of the nursing curriculum and has been acknowledged as being central to nursing education. However, in this study it has been noted that registered nurses' and lecturers' factors influenced the facilitation of clinical education and clinical learning of nursing students. It is therefore important that registered nurses should make use of supportive strategies to facilitate clinical education and support nursing students' clinical learning.

5.2.6.1 Poor interpersonal relationships

Interpersonal relationship is a state of reciprocal interest or communication between registered nurses and student nurses (Ahmed et al., 2019). The ability to develop good interpersonal

relationships is the most valued skill for registered nurses (Collier, 2017). They should be caring, empathetic, supportive, genuine, honest and show understanding towards nursing students (Bruce et al., 2013). Mutual relationships between registered nurses and nursing students have many essential effects on nursing students such as enhancing knowledge and skills, improving critical thinking and clinical reasoning skills, and developing professionalism and socialisation (Walker, Dwyer, Broadbent, Moxham, Sander & Edwards, 2014). It is vital that registered nurses enjoy good relationships with student nurses as this facilitates good communication between them and enhances the identification of different learning needs and styles of the students. Ramos, Brehmer, Vargas, Schneider and Drago (2013) revealed that positive interpersonal relationships and supportive behaviour towards nursing students improves their motivation, the standard of their work in clinical practice, their tolerance to criticism and adaptation to stress. Furthermore, it creates a conducive environment which is essential for nursing students' clinical leaning. Poor interpersonal relationships between registered nurses and nursing students, on the other hand, hinder the clinical performance of nursing students during clinical placement (Dlama et al., 2015).

Registered nurses serve as role models in the learning process of nursing students through communication based on respect, integrity, and mutual interaction with nursing students. According to Froneman et al. (2016), caring nurses who show concern for nursing students and act as confidants, role models and mentors contribute to the capacity of nursing students to overcome personal vulnerability and adversities. Conversely, poor interpersonal relationships may lead to frustration and demotivation thus negatively affecting clinical education and nursing students' acquisition of knowledge and skills (Labeeb et al., 2017). This study revealed that nursing students were discriminated against, victimised and subjected to unfair comparisons by registered nurses based on their academic performance and training institutions. These findings were supported by Fadana et al. (2021) who reported that students were discriminated against because of the college where they were undergoing their training. Discrimination of student nurses based on their training institutions was reported as a factor that distorted students' professional identity in practice. Moreover, comparing nursing students on the basis of their training institution violates their personal dignity and results in a sense of professional inferiority (Jamshidi et al., 2016).

The attitudes of registered nurses towards student nurses play an important role towards facilitation of clinical nursing education and students' clinical learning. Unfriendly registered nurses with bad attitudes deny the students opportunities to learn (Labeeb et al., 2017). This view was reinforced by Dale et al. (2013) who discovered that relationship problems such as unfriendliness and bad attitudes denied students opportunities to learn and compromised their clinical learning. Fadana et al. (2021) stated that registered nurses were unapproachable and shouted at students when they did something wrong. These findings support the results of the current study where registered nurses shouted at students and were not approachable. Furthermore, Ghrayeb (2017) explained that registered nurses were reluctant to dedicate their time to students' education and preferred to work independently. Consequently, poor interpersonal relationships and negative attitudes of registered nurses may lead to demoralisation, fear of asking questions and loss of confidence, thereby adversely affecting clinical learning and facilitation of clinical education (Kaphagawani et al., 2015). Moreover, poor relationships are a cause of demotivation and frustration among student nurses, leading to diminished acquisition of knowledge and skills (Kaphagawani et al., 2013). Warm, supportive interpersonal relationships are crucial for a conducive learning environment with caring behaviours and actions by nurses and are vital for the professional growth and learning of nursing students (Ghrayeb, 2017). It is therefore imperative that the relationship between registered nurses and student nurses be strengthened in order to enhance clinical learning of nursing students.

5.2.6.2 Lack of clinical supervision of nursing students

"Clinical supervision is a process of professional support and learning in which nurses are assisted in developing their practice through regular discussion time with experienced and knowledgeable colleagues" (Franklin, 2013, p35; Pusey-Murray & Onyefulu, 2018, p108). The main aim of clinical supervision is to assist nursing students to identify solutions to problems, increase understanding of professional issues, improve practice and enable the development of professional skills (Onuoha et al., 2016). Clinical supervision serves as an important element in facilitating clinical learning of nursing students because it influences students' clinical learning by enhancing the integration of theory into practice (Kaphagawani & Useh, 2018). Clinical supervision of student nurses in clinical practice plays a significant role in the nursing profession as it has a strong influence on the nursing students' clinical learning and experiences. According to HWA (2013)

as cited in Ngonyani et al. (2017), clinical experience is important because it provides a link between theoretical knowledge and practical knowledge, so it is recommended that nursing students work under supervision of registered nurses. Registered nurses should enhance learning through support, guidance and conducting timely and fair evaluations (Kaphagawani et al., 2018). It is worth noting that learning only takes place if nursing students are supervised, supported and guided to carry out activities under the supervision of registered nurses.

Providing clinical guidance and support in a transformational style of education can make learning come alive for nursing students so that they are empowered and become aware of and strengthen their vision by connecting what they are learning to their practical work (Onuoha et al., 2016). In order to provide clinical supervision to nursing students, the registered nurse should have time to develop and maintain clinical skills and be involved in clinical teaching (Sibiya & Sibiya, 2014). Nursing students require support and guidance from registered nurses in clinical settings for personal and professional growth. Effective clinical supervision is needed to build students' competencies in relation to quality and sufficient hands-on practice opportunities, psychomotor skills, communication skills and integration of theory with practice (Asirifi et al., 2017). According to a study done by Ravik et al. (2021), nursing students were inadequately supervised by registered nurses especially when incorrect support was given or support was lacking in the technical aspects of skills, resulting in the students being unaware of mistakes. Fadana et al. (2021) reported that students were left alone to do work without supervision which put a lot of pressure on students because they were frightened of making mistakes. Inadequate clinical supervision from registered nurses may lead to a loss of confidence and inability to properly learn the required skills (Kaphagawani et al., 2015). In addition, lack of supervision and guidance may cause nursing students to learn incorrect procedures, become incompetent and lose interest in the nursing profession as they may feel frustrated (Mbakaya et al., 2020).

5.2.6.3 Lack of motivation towards teaching

"Motivation is a process that stimulates and energises physical and mental activities towards a specific goal" (Saeedi & Parvizy, 2019, p1). The importance of motivation is that motivated registered nurses demonstrate more interest and willingness to facilitate clinical education. Registered nurses play a vital role in the learning process of nursing students; therefore, they need

to be motivated to guide and support nursing students in practice. In the context of clinical education, motivation is the driving force of registered nurses to facilitate clinical education which is considered as an important factor in determining whether the registered nurse is committed to clinical teaching. Committed and motivated registered nurses who are interested and willing to facilitate clinical education have a positive impact on nursing students' clinical learning and performance. Conversely, lack of motivation and commitment to provide clinical education to nursing students has a negative impact on their clinical learning (Moghaddam et al., 2020). Registered nurses need to demonstrate attributes such as friendship, closeness to nursing students, availability and readiness to provide clinical education because nursing students require adequate support, supervision and clinical teaching to facilitate achievement of learning during clinical placement (Bvumbwe et al., 2015).

5.2.6.4 Inadequate knowledge and skills of registered nurses

Registered nurses play an important role in preparing nursing students for their future endeavours, therefore they should possess the necessary teaching skills to impart appropriate knowledge, skills and attitudes to the future nurses. Registered nurses' levels of knowledge, experience and skills determine how confident and competent they are in their clinical teaching role (Killam & Heerschap, 2013). They should have sufficient abilities and complex personal and pedagogical qualities and competencies, but they often feel inadequate and insecure when taking on a teaching role (Laugaland, Conzalez, McCormack, Skovdahl, Stellebo, Billett & Akerjordet, 2020). These findings were consistent with a study by Ahmed et al. (2019) who indicated that the knowledge of registered nurses regarding teaching methods was low, as they did not have enough preparation for and experience in effective clinical teaching and facilitation. Ryan and McAllister (2018) revealed that registered nurses lacked confidence in teaching skills and they were not up to date with contemporary clinical teaching strategies which had negative consequences for the facilitation of clinical education.

In addition, registered nurses should be clinically competent and knowledgeable in clinical skills and procedures in order to impart appropriate skills to nursing students (Bvumbwe et al., 2015). Knowledge and clinical skills of registered nurses are considered as factors that influence the quality of clinical nursing education. Registered nurses should have thorough knowledge and be

up-to-date with the latest developments in nursing in order to be able to convey relevant and current knowledge and clinical skills to nursing students (Bazrafkan et al., 2018). Inappropriate clinical teaching approaches such as shortcuts and teaching of theory instead of practice as reported in this study prevent acquisition of appropriate clinical skills. Registered nurses should demonstrate appropriate steps and skills to be undertaken by nursing students to carry out a certain procedure or to demonstrate a clinical skill. Almalkawi, Jester and Terry (2018) stressed that insufficient knowledge of registered nurses to guide and support nursing students in their clinical learning have negative consequences for the professional development of nursing students and patient safety. Adequate academic and practical preparation of registered nurses and an appropriate approach in using instructional strategies thus plays an important role in facilitation of clinical education of nursing students (Baraz et al., 2015).

5.2.6.5 Poor communication

Communication is a process of exchanging information, feelings and thoughts among people through speaking, writing or using some other different medium (Omolola, 2014; Bello, 2017). The importance of communication in everyday life cannot be overemphasised. It is intrinsic to human behaviour; everyone communicates, yet not everyone takes the time to communicate effectively. However, the flow of communication involving an exchange of ideas, knowledge and carrying out daily activities is needed in every organisation or institution. Effective communication in a clinical learning environment is essential. It plays an important role in patient care and is related to satisfactory learning experiences of nursing students. It is imperative that both registered nurses and student nurses in the clinical environment communicate effectively.

The importance of communication between registered nurses and nursing students during clinical placement is crucial for ensuring quality clinical nursing education and patient care. The ability of the registered nurse to communicate with and relate to nursing students and other nursing personnel is critical to ensure safe nursing care is provided (Omolola, 2014). Registered nurses with good communication skills are easily able to interact with and teach nursing students. A study by Kube (2010) found that registered nurses who showed respect for students' ideas and abilities were in fact confident enough to acknowledge the nursing students' inputs to their clinical learning. A study by Ozturk et al. (2013) revealed that nursing students experience communication

problems during clinical nursing education which decreased their self-confidence and created difficulty in adapting to the clinical environment. This brought frustration and stress among students and registered nurses as registered nurses were not prepared to exchange information or guide nursing students (Fadana et al., 2021). It is therefore important that effective communication between registered nurses and nursing students be enhanced in order to optimise effective clinical nursing education.

5.2.6.6 Lack of role clarity towards nursing students

"Role clarity is the articulation of the role expectations that a person undertakes through a process by which the knowledge, skills and boundaries of each role are identified, shared and defined" (Allen, 2020, p21). Nursing education institutions use registered nurses working in the clinical learning environment to train student nurses in the acquisition of skills and in integrating theory with practice. It is crucial that registered nurses have some experience and awareness of their clinical teaching role (Nyoni et al., 2016). According to Lapena-Monux et al. (2016), registered nurses have no contractual relationship with the universities and their purpose is to teach, guide, support and facilitate nursing students' integration into the clinical learning environment. Moreover, Aghamohammadi-Kalkhoran et al. (2011); Lapena-Monux et al., (2016) indicated that registered nurses assume various roles such as resource person, teacher and leader in the clinical learning environment in order to facilitate the students' clinical learning. Furthermore, Rikhotso et al. (2014) stated that registered nurses have an educational role to facilitate the development of nursing students both academically and personally as they play a crucial role in fostering the successful clinical understanding of nursing students through sharing their experiences and knowledge. According to Seekoe (2014), the role of registered nurses is to ensure that nursing students are capacitated, empowered and academically competent. Nyoni et al. (2016) are of the opinion that if registered nurses are aware of their professional and educational roles in the clinical learning environment, it enhances their functionality. Registered nurses should therefore support the nursing students to ensure that they achieve their objectives whilst delegated to the clinical learning environment (Muthathi et al., 2017).

The registered nurses play an integral role in clinical nursing education of nursing students and help to prepare them for their professional practice. According to Daniels et al. (2014), registered

nurses consider provision of patient care as their main priority and therefore did not take responsibility for clinical nursing education for student nurses. Lack of clarity about the registered nurses' roles creates confusion and leads to resistance to its integration (Bault, Kilpatrick, D'Ámour, Contadriopoulos, Chouinard, Dubois & Beaulieu, 2014). Moreover, due to lack of role clarity, registered nurses interpreted and created their own clinical roles (Henshall, Doherty, Green, Westcott & Aveyard, 2018). Furthermore, lack of clear role definition and clarity can be frustrating to the registered nurses in the clinical environment because it can lead to limitations in job responsibilities and under-utilisation of the knowledge and skills possessed by the registered nurse (Foster & Flanders, 2014). Clarifying roles of registered nurses can be an effective method of mitigating role confusion, facilitating the integration of new roles and fostering collaboration. Therefore, role clarification can define each person's professional role and optimise their professional scope of practice, thereby ensuring efficient facilitation of clinical education (Bault et al., 2014).

5.2.7 Support system challenges

The support system in terms of resources, equipment and materials is an essential component in improving the quality of clinical nursing education. The importance of sufficient resources promotes efficient and effective service delivery. Lack of resources and equipment are a barrier to effective facilitation of clinical nursing education and can lead to disruption, missed learning opportunities and failure of service delivery. Therefore, adequate resources are needed for effective facilitation of clinical nursing education.

5.2.7.1 Lack of resources

Effective facilitation of clinical nursing education is supported by an adequate complement of qualified staff as they foster quality clinical learning support to student nurses. In addition, quality clinical education is influenced by basic working and teaching equipment that is at the disposal of the registered nurse. The availability of such equipment and materials will enable registered nurses to effectively facilitate clinical nursing education through teaching and demonstrating appropriate skills. Furthermore, time is considered as an element that influences the quality of teaching and learning because it affects the quality of support given by registered nurses due to limited time devoted to the teaching function. Moreover, the infrastructure in which teaching and learning

takes place needs to be enhanced in order to provide a reliable configuration and support in which both registered nurses and nursing students feel safe to carry out their functions. However, in this study, participants experienced a lack of human resources as well as materials and equipment, time, workload, integration of theory into practice, clinical learning environment, opportunities for learning and continuing professional development. These challenges regarding a shortage of resources concur with studies by Courtney-Pratt et al. (2012) and Msiska et al. (2014) which reported that there was lack of resources in terms of staff, materials and equipment. These challenges are deemed to affect facilitation of clinical education negatively.

Shortage of staff

Shortage of staff is defined as a situation where the demand for staff is greater than the supply (Sibiya et al., 2014). If facilitation of clinical nursing education is to be effective, it should be supported by an adequate number of registered nurses in the clinical learning environment. However, this study revealed that there was a shortage. This state of affairs compromises the clinical learning of nursing students as they lack support and supervision from registered nurses. A high ratio of registered nurses to nursing students could facilitate effective clinical education. However, this is not the case in resource-poor settings where there is lack of human resources (Gemuhay et al., 2019). A shortage of registered nurses and too many nursing students in practice hinder effective facilitation of clinical nursing education and students' performance in clinical practice. Similar results were reported by Davidson et al. (2012); shortages of staff caused registered nurses to prioritise patient care over clinical teaching of nursing students. Moreover, Eta et al. (2011) are of the opinion that quality clinical education is facilitated by an adequate number of qualified registered nurses who foster quality clinical learning support of nursing students. According to Luhanga (2017), a high student nurse/registered nurse ratio was a major concern for effective facilitation of clinical education because it decreases the time available for individual nursing student/registered nurse interactions. The study further reported that large clinical group sizes of nursing students make it difficult for registered nurses to simultaneously supervise and facilitate clinical education which could compromise clinical learning. According to Freundl, Anthony, Johnson, Harmar, Carter, Boudiab and Nelson (2012), the shortage of staff and the limitation of available clinical facilities have impacted negatively on facilitation of clinical nursing education. A study conducted by Klerk (2010), as cited by Daniels et al. (2014), reported

that registered nurses were unable to spend individual time with nursing students because of staff shortages in relation to the large number of student nurses. Therefore, it is very important that registered nurse/ nursing student ratio be appropriate in order to allow for effective facilitation of clinical education.

Lack of equipment and materials

Adequate working materials and equipment are crucial for effective facilitation of clinical education of nursing students during clinical attachment. According to Ngonyani et al. (2017), clinical nursing education is influenced when basic working and teaching equipment is provided to the registered nurses to enable them to teach and demonstrate skills effectively. Ata et al. (2011) agree that quality clinical nursing education is influenced by the availability of basic working and teaching equipment as it will enable registered nurses to effectively teach and demonstrate appropriate skills. The absence of sufficient equipment and materials has numerous consequences on the quality of clinical nursing education because it impairs effective teaching and learning in the clinical environment leading to poor teaching outcomes. According to Eta et al. (2011), lack of working equipment and inadequate teaching materials hinders effective facilitation of clinical education. The participants in a study conducted by Asah (2010), as cited by Sibiya et al. (2014), shared the same frustration that the shortage of equipment and materials hampered effective clinical learning of nursing students because they were unable to perform clinical procedures properly. Mbakaya et al. (2020) reported that lack of resources facilitated poor quality of learning and the provision of substandard nursing practice through improvising of resources. As a consequence, nursing students became frustrated and stressed, compromising the quality of experiences and learning in the clinical learning environment.

Inadequate time to facilitate clinical nursing education

Time is a very important resource for maximising the learning outcomes of student nurses during clinical attachment. For effective facilitation of clinical education to take place, sufficient time should be devoted to this function. Limited time of registered nurses due to busy wards and high patient volume negatively affects facilitation of clinical education. Diogo et al. (2016) indicated that the major constraint affecting the facilitation of clinical education is the limited time available to devote to the teaching function of nursing students. Moreover, Haider et al. (2020) concur that

the lack of balance between time for clinical responsibilities and time for teaching affects facilitation of clinical nursing education. Therefore, time management is important in improving the quality of facilitation of clinical nursing education.

Furthermore, the time allocated for nursing students' clinical practice plays a role in learning practical skills. Nursing students need more time at the bedside of the patient in order to help them correlate academic knowledge with clinical experience. Hence, students should be given adequate time in clinical practice. Eta et al. (2011) reported that one of the challenges of clinical nursing education is that students spent inadequate time on clinical placement which had a negative impact on their clinical learning. These findings are supported by Daniels et al. (2014) who revealed that the time spent in the clinical learning environment was insufficient and this limited the nursing students' sense of belonging as a member of the team. In addition, the opportunity for nursing students to meet their clinical learning outcomes was constrained. Therefore, nursing students should be allocated to a specific discipline for a reasonable period of time in order to maximise learning opportunities. Labeeb et al. (2017) also reported that inadequate length of time for clinical practice does not help the nursing student to learn much before leaving the clinical area.

5.2.7.2 Workload

Workload is defined as the amount of work performed or usually performed within a specific period of time (Alghamdi, 2016; Khademi et al., 2015). In this study, workload refers to the amount of work registered nurses are expected to perform within a specific timeframe. This study revealed that registered nurses have a higher workload which was attributed to shortages of staff and high numbers of student nurses in practice. Some authors are of the opinion that the workload of registered nurses, due to high patient volume and a large number of student nurses, contributes to inadequate facilitation of clinical nursing education and learning (Rhikotso et al., 2014; Daniels et al., 2014). Moreover, Amukugo et al. (2019) noted that hindrances to clinical teaching include staff shortages, negative attitudes of registered nurses towards teaching, inadequate preparation for teaching and workload.

5.2.7.3 Lack of integration of theory into practice

"Integration of theory with practice is the process whereby connections are made between knowledge, values and skills learned in the classroom and the practical experience that individuals face in clinical practice" (Carelse & Dykes, 2013, p166). Integration entails two or more aspects being brought into relation with another. In nursing education, theory is related to practice. Thus, theory forms the basis for learning which nursing students have to apply in clinical practice to create meaningful learning experiences. Learning occurs when nursing students apply what they learned in the classroom situation to real life situations. Practice in the clinical learning environment offers student nurses the opportunity to integrate theoretical classroom knowledge with the practical skills required to make clinical decisions and provide care. Therefore, clinical practice is a valuable learning tool for improving students' academic knowledge and concepts through practical application (Alammar et al., 2020). Registered nurses are expected to be involved in the clinical education of nursing students in order to reinforce and demonstrate how the theory in the classroom could be applied in real life. However, a study by Kaphagawani et al. (2015) showed that registered nurses' practice in the clinical situation was different from what was learned in the classroom, resulting in confusion. According to this study, nursing students indicated that there were discrepancies between what they were taught in the classroom and what they practised in the clinical setting as registered nurses often took shortcuts when performing procedures. These findings concur with a study by Manamela (2019) that revealed that registered nurses were taking many shortcuts when performing procedures in order to save time and resources and this led to confusion and lack of confidence among students. Abdal et al. (2015) reported that students were complaining that they expected to see evidence-based practice in the wards that was compatible with what they had learned in the class, but that was never the case and they remained uncertain about what was right and wrong. These conflicting practices caused students to become confused, stressed and anxious, thereby hindering successful clinical learning. The findings were supported by Kaphagawani et al. (2013) who revealed that nursing students become anxious and confused if they practised something different from what they learned in the classroom. Moreover, LeHelloco-Moy (2011), as cited in Bouchlaghem and Mansouri (2018), indicated that nursing students were in a dilemma when they found contradictions between theoretical lessons they received in the classroom and the application of that knowledge in the clinical learning environment.

5.2.7.4 Inadequate opportunities for learning

Provision of clinical learning opportunities has a direct impact on the development of nursing students as it impacts on their self-awareness, professionalism, critical thinking skills and psychomotor abilities (Onuoha et al., 2016). Learning in the clinical learning environment is an important component in nursing education since nursing is a practice-based profession. Learning takes place if the nursing students are given the opportunities to practise real nursing by doing it hands-on. Furthermore, learning occurs when nursing students integrate theoretical concepts with practice. However, the clinical learning experiences of students were considered challenging because the registered nurses were not providing enough support for nursing students (Onuoha et al, 2016). The quality of clinical nursing education depends largely on the quality of clinical experience of nursing students in clinical practice. Such experiences have an influence on the clinical learning of nursing students. According to Zarshenas, Sharif, Molazem, Khayyer, Zare & Ebadi (2014), clinical practice allows nursing students to become socialised into the norms and culture of the nursing profession.

Through clinical placement, student nurses are provided with the opportunities for professional socialisation by allowing them to experience how nurses interact, feel and think, as well as what they value (Lapena-Monux et al., 2016). Nursing students require clinical learning opportunities to gain concrete experiences and skills. Therefore, it is important to provide nursing students with the opportunities to care for patients and carry out nursing activities under the supervision of a registered nurse to enable them to be exposed to activities and learn clinical skills (Henderson, Cooke, Creedy & Walker, 2012). Nursing students should be given opportunities to practise different tasks to gain confidence, perfect their skills and learn from the mistakes they make (Lofmark & Wikblad, 2001) as cited in Kaphagawani et al. (2013). The clinical environment should be organised in such a way that nursing students are involved in clinical activities that will enable them to learn the required skills. According to Mntambo (2009), as cited in Kaphagawani et al. (2015), acquisition of knowledge and experience for nursing students to become competent is dependent on the availability of opportunities to learn in clinical practice. However, lack of this may contribute to students not being able to take up challenging tasks in future. Registered nurses also indicated that they had limited time and skills in identifying teaching opportunities (Nyoni et al., 2016). Moreover, should the nursing students fail to take the initiative, they are forgotten in

the day-to-day running of the wards, thus leading to missed learning opportunities (Nyoni et al., 2016). However, students reported a variety of learning opportunities which facilitated their learning, but these were compromised due to increased workload (Chuan et al., 2012). If essential learning opportunities are missed, or the nursing students are exposed to negative experiences, they may not be able to grow in learning and will be incompetent in clinical skills, which may compromise patient safety (Fadana et al., 2021). It is therefore crucial that nursing students be given opportunities to practise different skills in order to gain confidence, become competent and learn from their mistakes (Porter et al., 2013), as cited in Mbakaya et al. (2020).

5.2.7.5 Non-conducive clinical learning environment

Clinical learning environment refers to the clinical setting where nursing students can learn and develop clinical nursing skills in a real-life situation under the guidance of an experienced professional (Muthathi et al., 2017). Other authors have defined clinical learning environment as the interactive network of forces that influences professional development and clinical learning outcomes of student nurses, which are statements of what students are expected to understand and demonstrate at the end of their clinical practice (Masilaca, Kumar & Balekiwal, 2018; Vizcaya-Moreno et al., 2018). The clinical learning environment is important as it enables nursing students to achieve their desired learning outcomes (Bisholt, Ohlsson, Engstrom, Johanson & Gustafsson, 2014). Furthermore, a supportive clinical learning environment is crucial for nursing students' learning and development as reflective and competent nursing professionals who are able to engage effectively in critical thinking and decision-making processes in practice (Laugaland et al., 2020). The clinical learning environment provides a real-life context for nursing practice and supports meaningful learning, socialisation and professional development opportunities for nursing students. A constructive clinical learning environment with satisfactory possibilities for and a focus on student learning needs is vital to nursing education (Ekstedt et al., 2019). The clinical learning environment should motivate nursing students and contribute to their feeling of security, including asking questions to achieve learning outcomes.

5.2.7.6 Lack of continuing professional development

Continuing professional development (CPD) is a purposeful process by which members of a profession are committed to maintaining, improving and broadening their knowledge, skills and

competence throughout their careers to ensure they retain their capacity to practise safely, effectively, competently and legally within their evolving scope of practice (Mccarthy & llliffe, 2013, p16). Nursing is a dynamic profession that requires nurses to keep themselves up to date with the latest developments in the profession. Lifelong learning is an important attribute of all nurses that enables them to actively continue to search for information. According to Ngonyani et al. (2017), lifelong learning increases registered nurses' knowledge, skills, attitudes and builds their capacity to perform their tasks associated with their position and ensure that the latest evidence-based practices are incorporated into clinical teaching (Ngonyani et al., 2017). According to American Nurses Association (ANA, 2015), the importance of education and lifelong learning is to ensure that registered nurses are equipped with the right skills, knowledge and attitudes to deliver the services expected, to be fit for purpose and continue to develop competency. Consequently, registered nurses are responsible for their own personal and professional development including continuing professional development with the aim of improving knowledge, skills and competence (Muller & Bester, 2016). Therefore, ongoing learning, both formal and informal, is required to maintain clinical competence and acquire new knowledge and skills for expanded professional roles. CPD helps registered nurses to keep up to date with current information, developments and practices in the nursing profession.

Clinical nursing education is critical for quality nursing practices and registered nurses are mostly responsible for facilitating clinical nursing education of nursing students in the clinical setting. Registered nurses should be well-equipped with knowledge and skills to be able to impart knowledge and skills to nursing students in practice. A study conducted in Malawi by Bvumbwe et al. (2015) highlighted the need for continuous professional development among registered nurses who support students' learning. This study showed that registered nurses have insufficient knowledge to carry out certain clinical procedures and lack teaching skills. These findings were supported by a study conducted by Eta et al. (2011) that indicated that nursing students were taught and guided by registered nurses who had little or no prior formal teaching experience. The lack of knowledge may have numerous consequences on the quality of clinical nursing education as it hampers effective facilitation and impairs active teaching and learning.

5.2.8 Procedure: Procedure for guidelines development

Procedures are guiding rules, protocols or techniques to be followed while activities are taking place (Dickoff et al., 1968). A procedure is a process followed to address problems or direct actions. Furthermore, a procedure suggests steps to be taken in order to accomplish a certain activity. In this study, the procedure is the process followed to develop guidelines to facilitate clinical nursing education guided by the ADDIE model (Molenda, 2015) and MoHSS framework (2017). Triangulation of the review, qualitative and quantitative was done to develop the guidelines The development of the procedure for registered nurses to facilitate clinical nursing education is explained in Chapter 6 of the study. Figure 5.6 represents the procedure.

Figure 0.6 The procedure

5.2.9 Terminus: Guidelines which are ready to be validated and implemented

Terminus refers to the last stage or final product of an activity that an agent desires to accomplish through the procedures (Dickoff et al., 1968). It further refers to the goals that one would like to achieve by performing certain activities (Neshuku, 2015). In this study, terminus refers to the developed guidelines to facilitate clinical nursing education. It is anticipated that the guidelines will empower registered nurses and nurse educators with the necessary knowledge and skills to effectively facilitate clinical nursing education.

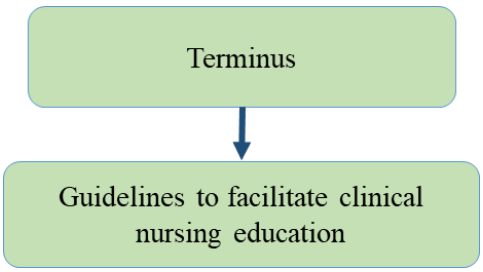

Figure 0.7 *The terminus*

5.3 SUMMARY

This chapter described the conceptual framework and the researcher's concept mapping. The next chapter deals with the development, proposed implementation and evaluation process of the guidelines for registered nurses to facilitate clinical nursing education.

CHAPTER SIX

DEVELOPMENT OF GUIDELINES TO FACILITATE CLINICAL NURSING EDUCATION OF NURSING STUDENTS

6.1 INTRODUCTION

The previous chapter described the conceptual framework according to the six-survey list as proposed by Dickoff et al. (1968). The survey list includes the agent, recipient, context, dynamic, procedure and terminus and formed the basis for the development of the guidelines for registered nurses to facilitate clinical nursing education. This chapter focusses on the development of the guidelines in the training health facilities of Oshana and Oshikoto regions. The information obtained from situational analysis underpins the development of the guidelines which aim to strengthen best practices in clinical nursing education and address the challenges identified. The conceptual framework guided the study and all concepts of the study were mapped with this framework.

6.2 OVERVIEW OF THE DEVELOPMENT OF GUIDELINES TO FACILITATE CLINICAL NURSING EDUCATION OF STUDENT NURSES

The guidelines were developed based on evidence obtained from the situational analysis (Phase 1) of the study. The guidelines focus on strengthening best practices in clinical nursing education and addressing challenges revealed through situational analysis. The guidelines are described under the following headings: best practices in clinical nursing education; registered nurses' and lecturers' challenges; student nurses' challenges; and support system challenges. The sub-headings based on the participants' identified needs during facilitation of clinical nursing education (as illustrated in Chapter 4, Table 4.32) are described. The envisaged activities to be carried out by registered nurses during facilitation of clinical nursing education are also outlined.

The MoHSS (2017) framework for guidelines development was adopted for this purpose. The guidelines are intended to improve uniformity in activities and steps to be undertaken by registered

nurses when implementing the guidelines. It is important that efforts are made to promote awareness, acceptance, adoption and adherence to the guidelines by the end users. Finally, the guidelines are evaluated in order to determine if they are effective in reaching the intended goal and objectives.

6.3 DEVELOPMENT OF GUIDELINES TO FACILITATE CLINICAL NURSING EDUCATION OF NURSING STUDENTS

6.3.1 Structure of the guidelines

The structure of the guidelines was adopted from the MoHSS (2017) framework and consists of the situation of clinical nursing education based on: international, national and the African context; the current situation of clinical nursing education; assumptions of guidelines; aim and objectives of the guidelines; benefits and activities for the guidelines, as described below.

6.3.1.1 Situation of clinical nursing education

Clinical nursing education is a crucial part of nursing education and is conducted in health facilities where registered nurses guide and support nursing students to acquire the necessary knowledge and skills in nursing, become involved in actual clinical learning and prepare for their nursing roles. It enables student nurses to gain competence in the values, attitudes, knowledge and skills required by the nursing profession and therefore enables them to proceed to professional life (Ozturk et al., 2013). Globally, clinical nursing education is seen as the basis of nursing practice (Gemuhay, et al., 2019). It serves as one of the educational experiences for nursing students and gives them the opportunities to learn real-life conditions and experience the realities of the nursing profession (Dag et al., 2019). Clinical nursing education enables nursing students to apply theoretical knowledge in practice, gain competence in psychomotor and intellectual skills, define and solve problems, make decisions, practise in a team, develop communicative, administrative and teaching skills, prepare for future roles and develop self-confidence (O'Driscoll et al., 2010; Ozturk et al., 2013). For nursing students to achieve these things, a strong support system from registered nurses in terms of guidance and facilitation of clinical nursing education in the clinical learning environment is needed. According to Lapkin and Levett-Jones (2011), nursing students

need to be supported and guided so that they can become responsible, accountable and independent professionals who are able to function within the scope of professional practice. Nursing students must be fully prepared to know and perform activities required for nursing functions and be prepared for their actual professional roles in the clinical setting.

Although clinical nursing education is very important in nursing education, nursing students experience various challenges in the clinical learning environment that are caused either by healthcare personnel or nursing students. These challenges have negative consequences for the nursing students' clinical learning, motivation and willingness to learn (Ozturk et al., 2013). Some studies revealed that existing clinical nursing education does not meet the need for clinical skill competence of students (Heidari & Norouzadeh, 2015) and that there is a gap between theory and practice. According to Heidari et al. (2015), clinical nursing education challenges such as lack of sufficient facilities, lack of co-operation of staff, lack of procedures to be practised by students, lack of opportunities for learning and lack of motivation among students exist. For effective facilitation of clinical nursing education to occur, these challenges have to be addressed.

6.3.1.2 Current situation of clinical nursing education

Nursing students are allocated to the clinical learning environment in order to learn the art of nursing under the guidance and supervision of registered nurses and nurse educators. In order to impart knowledge, skills and attitudes, the registered nurses use procedure manuals that are approved by the Ministry of Health and Social Services. However, the said procedure manuals are outdated and have not been updated. This has an implication of transferring outdated information to nursing students. Additionally, registered nurses and nurse educators use textbooks to update their knowledge on various procedures to enable them to facilitate clinical nursing education.

6.3.1.3 Assumptions of guidelines

Assumptions are statements that are taken for granted or considered true, even though they have not been scientifically tested and provide a basis for the phenomenon described by the theory (Grove et al, 2019). The assumptions of guidelines are based on the methods of guidelines development and must be entrenched in the guidelines as this will enhance facilitation of clinical nursing education. These assumptions will guide the registered nurses in implementing

innovations during facilitation of clinical nursing education. The guidelines are based on the following assumptions as illustrated in Table 6.1.

Table 6.1*:* Assumptions of the guidelines.

Assumption	Application
Agent (Registered nurse, nurse educators)	• Maintain standards of clinical competencies in areas of clinical expertise. • Establish a caring and professional relationship with nursing students and other health professionals. • Demonstrate role-modelling, creativity and innovative thinking. • Promote and encourage critical thinking skills in nursing students. • Create a safe clinical learning environment for nursing students. • Familiarise oneself with the course syllabi and clinical objectives. • Formulate clear and achievable goals according to course objectives and goals. • Strive to guide each student in achieving clinical learning objectives. • Use various teaching strategies to guide and support nursing students while in practice. • Assess the students' clinical performance.
Recipient (nursing student)	• Nursing students comply with all academic and professional requirements as set out by the training institution and the regulatory body. • Nursing students play a role in their own learning. • Nursing students are ready to learn and relate things that they need to know and do in real life. • Nursing students' orientation to learning is life-centred and involves application of what they have learned. • As adult learners, nursing students are motivated in learning what is useful and relevant to their real-life situations.
Context (Clinical learning environment)	• The clinical learning environment is accredited and regulated by the Health Professions Council of Namibia for the training of nursing students. • It provides activities and learning opportunities for nursing students during clinical practice. • The clinical learning environment offers the real world of nursing where nursing students integrate theory and practice. • The clinical learning environment provides support in terms of resources for clinical teaching and learning of nursing students.

Assumption	Application
Dynamic (Best practices in clinical nursing education and challenges)	• Enhance stakeholder involvement and collaboration in clinical nursing education. • Promote effective communication between registered nurses and nursing students. • Create a positive interpersonal relationship between registered nurses and nursing students. • Provide a conducive clinical learning environment for teaching and learning. • Address challenges to enhance effective clinical nursing education
Procedure (Process of guidelines development)	• The guidelines were developed according to the evidence obtained from situational analysis.
Terminus (Developed guidelines)	• Developed guidelines that are ready to be validated and implemented in practical setting.

6.3.1.4 Aim of the guidelines

The aim of the guidelines is to enhance best practices in clinical nursing education in order to mitigate the challenges of registered nurses, lecturers, nursing students and support systems experienced during facilitation of clinical nursing education and improve what is already in practice so that it matches with current changes in clinical nursing education.

6.3.1.5 Objectives of the guidelines

The objectives of the guidelines were formulated to strengthen best practices in clinical nursing education and address the challenges identified during the study. The objectives were based on the evidence of the study in order to achieve the purpose of the guidelines. The guidelines consisted of four objectives:

- To strengthen best practices in facilitate clinical nursing education of nursing students during clinical attachment
- To address registered nurses and lecturers' challenges hampering facilitation of clinical nursing education

- To address nursing students' challenges hindering facilitation of clinical nursing education
- To address challenges affecting the support system in order to improve the clinical environment for facilitation of clinical nursing education.

6.3.1.6 Benefits of the guidelines

The guidelines which are informed by evidence-based practices contribute to the enhancement of clinical nursing education. The guidelines also contribute to the improvement of knowledge and skills of registered nurses in clinical nursing education and the enhancement of nursing students' knowledge, skills and attitudes towards nursing practice.

Nursing students

The benefits of the guidelines would enable nursing students to be guided and supported properly based on best practices in clinical nursing education. It would also enable students to be taught and guided properly based on their learning needs. It would help students to recognise and interrelate the theoretical content taught in the classroom to the practice component in the clinical learning environment.

Registered nurses and lecturers

The benefits of using the guidelines as guiding tools in facilitating clinical nursing education are that they would enhance and improve the self-esteem, confidence and skills of registered nurses by empowering them with the necessary knowledge and skills. The guidelines would guide the registered nurses to apply theory to practice, thereby promoting uniformity in facilitating clinical nursing education.

Institution

Using the guidelines to facilitate clinical nursing education will result in the production of competent nurses and consequently improve the image of the institution.

Profession

The guidelines will ensure that registered nurses and nurse educators facilitate knowledge, skills and attitudes based on scientific evidence to avoid transferring outdated information.

6.3.1.7 Directives for the guidelines

In this study, the directives refer to the activities of the guidelines to be undertaken in order to enhance best practices and address challenges affecting facilitation of clinical nursing education. The activities are clearly stipulated in 6.4.

6.4 GUIDELINES TO FACILITATE CLINICAL NURSING EDUCATION OF NURSING STUDENTS

In this study, the following guidelines were developed:

- Guideline to strengthen best practices in clinical nursing education.
- Guideline to address nursing students' challenges
- Guideline to address registered nurses' and lecturers' challenges
- Guideline to address support system challenges

6.4.1 Guideline to strengthen best practices in clinical nursing education

This guideline was formulated to provide best practices and related activities to be performed for enhancement of clinical nursing education which include intersectoral collaboration, stakeholders' involvement, communication, qualities of the facilitator, clinical learning environment and shared vision.

6.4.1.1 Activities for intersectoral collaboration

Intersectoral collaboration denotes a joint endeavour involving more than one agency or organisation that perform different roles for a common purpose (Direko-Davhana et al., 2017). The sectors that play a role in clinical nursing education include: the MoHSS; UNAM; IUM; WHTC; student nurses; and the community. Intersectoral collaboration is vital for clinical nursing education and relies on effective collaboration between registered nurses, health sector,

educational institutions and the community. Activities to improve intersectoral collaboration include the following points. The registered nurses should:

- initiate regular meetings through intersectoral collaboration with UNAM, IUM and WHTC in order to avert and solve problems concerning student nurses, registered nurses and the support system
- facilitate the process of intersectoral collaboration by engaging partners through face-to-face meetings in order to discuss issues related to clinical nursing education
- maintain open communication with all sectors taking part in intersectoral collaboration by discussing matters related to student nurses, registered nurses and support system matters
- ensure mutual respect and understand the institutional limitations of all stakeholders who are involved in intersectoral collaboration that may impact the delivery of clinical nursing education activities
- collaborate with UNAM, IUM, WHTC and MoHSS to participate in the curriculum review of the nursing programme
- establish a joint clinical education forum committee through intersectoral collaboration with UNAM, IUM, WHTC and MoHSS to discuss student nurses' challenges
- ensure that there is a memorandum of understanding (MoU) between the UNAM, IUM, WHTC and MoHSS concerning collaboration, with clearly outlined expectations, responsibilities and roles of all sectors involved.

6.4.1.2 Activities for stakeholders' involvement

Stakeholder involvement refers to participation of interested groups that have a particular interest or stake in a situation and the potential to prevent or facilitate strategic decision (Belita et al., 2020; Hauck et al., 2016). Stakeholders in clinical nursing education include patients/clients, nursing students, UNAM, IUM, WHTC and MoHSS. These stakeholders play a crucial role in ensuring that all aspects of clinical nursing education are addressed in the nursing curriculum. Activities for ensuring stakeholders involvement are listed below.

Registered nurses should:

- ensure that all stakeholders who share the same vision of clinical nursing education, which is to produce competent, knowledgeable and skilled registered nurses, are involved in clinical education matters.
- involve stakeholders in curriculum planning and reviews of nursing programmes to give their input concerning clinical nursing education, clinical learning objectives and clinical learning experiences to be achieved by nursing students
- establish a platform in the form of meetings by involving MoHSS, UNAM, IUM, WHTC, student nurses and patients to discuss and share ideas about how to overcome nursing students', registered nurses' and support system challenges
- respect the opinions and contributions of all stakeholders involved in clinical nursing education in order to promote respect, trust and understanding
- respect the confidentiality and privacy of the of all stakeholders' contributions concerning the deliberations on curriculum planning and on discussions concerning the challenges
- should ensure that stakeholders' involvement in clinical education is supported by adequate resources including human resources, equipment and materials, time and finance
- keep records and documentation of all deliberations at meetings for future reference.

6.4.1.3 Activities for communication

Communication is the exchange of information between people by sending and receiving it through speaking, writing or by using any other medium (Sibiya, 2018). Effective communication is a two-way process that requires the effort, skills and active involvement of both sender and receiver (Massa et al., 2016), in this case comprising registered and nursing students. To enable effective communication, the registered nurse should:

- take into account the total setting of the stakeholders both physical and human as meaning and intention can be conveyed by more than words alone
- consider the interests and needs of the recipient and the relevance and benefits of the information to the nursing students
- should ensure a two-way, effective communication process by engaging stakeholders in the discussions relevant to clinical nursing education

- use language that is understandable, clear and simple
- use body language that is appropriate, a pleasant tone of voice, friendly expression and be receptive to responses from stakeholders
- Registered nurses should ensure that communication is consistent with the interests, goals and challenges affecting clinical nursing education.
- make sure that the communication process is supported by appropriate actions and attitudes
- demonstrate good listening skills at all times during communication by concentrating not only on the explicit meanings expressed, but also on the implicit meanings, unspoken words and undertones that may be significant.

6.4.1.4 Activities to strengthen the qualities of a facilitator

The facilitator is a major role-player in the personal, professional and academic development of nursing students. Based on their competence, attitude and approach, learning may either be promoted or discouraged (Bruce, et al., 2013) so facilitators should possess qualities that will enable effective facilitation of clinical nursing education and enhance clinical learning. The facilitator in this context refers to the registered nurse in health facilities. The activities of an effective facilitator are as follow.

The facilitator should:

- share clinical expertise with the recipients and other stakeholders through the provision of knowledge, skills and practical suggestions relevant to clinical nursing education
- demonstrate theoretical and practical expertise in clinical nursing education by imparting appropriate knowledge and skills to nursing students
- conduct themselves professionally by demonstrating ethical practices, positive attitudes, being trustworthy and accountable for their actions
- demonstrate self-confidence, be a good listener, be non-judgemental and keep an open mind
- think critically in order to stimulate critical thinking so that nursing students will be able to use their reasoning to make sound judgments and decisions regarding patient care

- transmit knowledge to nursing students using the most appropriate educational methods and approaches that enable all students to benefit from the teaching activity
- attend in-service training, seminars, online courses, post-graduate courses and conduct research in order to keep abreast of current knowledge and skills
- assess the students' progress by evaluating their clinical performance and provide feedback that is constructive and non-judgemental.

6.4.1.5 Activities for a conducive clinical learning environment

Clinical learning environment refers to the clinical setting where nursing students can learn and develop clinical learning skills in a real-life situation under the guidance of an experienced professional (Muthathi, et al., 2017). The clinical learning environment is important for nursing students' clinical learning because it enables them to develop practical skills and competence. Therefore, the registered nurse has an enormous responsibility to ensure that the clinical learning environment is conducive for clinical learning. The activities for enabling a conducive clinical learning environment include the following points.

The registered nurse should:

- create a conducive clinical learning environment with a welcoming, relaxed and friendly atmosphere where students feel free to ask questions and be guided
- cultivate a culture of effective communication and positive working relationships with nursing students by being polite, friendly and approachable
- create learning opportunities that are diverse and appropriate for nursing students' clinical learning
- ensure that appropriate resources for clinical nursing education are available in the clinical learning environment
- use resources effectively and efficiently by utilising them correctly, for the intended purpose and in the right quantity
- demonstrate flexibility in facilitation of clinical nursing education where resources are limited by making sure that the expected skill is demonstrated using what is available

- report to the registered nurse in charge of the department when the level of resources risks compromising the quality of clinical nursing education and clinical learning
- assign a designated room/space within the clinical learning environment for clinical nursing education purposes.

To enable the availability of study materials, the registered nurse should:

- obtain a hard or digital copy of the expected learning outcomes from UNAM, IUM, and WHTC of clinical skills to be achieved by the student nurse while in the clinical learning environment
- explain the expected learning outcomes to the recipients at the beginning of each clinical allocation so that they know what is expected of them
- encourage student nurses to always have their practical logbooks when in the clinical learning environment in order to carry out the expected clinical procedures
- take the recipients through the content of the logbook as well as the requirements in that specific department to ensure that these are satisfied
- guide the recipients to use books and internet resources to search for relevant information should they be confronted with a challenging situation in the clinical learning environment.

To enable usage of policies and guidelines, the registered nurse should:

- maintain current knowledge and relevant professional standards of practice by keeping themselves up to date with the latest information and incorporate policies and guidelines of the MoHSS into practice
- partake in the review of relevant policies and guidelines related to clinical nursing education and provide inputs in order to fill the policy gaps
- demonstrate understanding of developments in nursing by being familiar with the relevant policies and guidelines governing clinical nursing education
- use the procedure manuals available in the clinical learning environment to guide nursing students on how to perform certain clinical procedures correctly.

6.4.1.6 Activities for shared vision

Shared vision is a set of common goals and values that help to engage members of an organisation in the development of the organisational future (Klang et al., 2016). Shared vision enhances team performance of all stakeholders and reduces conflicts and disagreements. It is important that all stakeholders in clinical nursing education share the same vision in order to strive towards achieving the common goal of clinical nursing education. The activities for strengthening a shared vision are listed below.

The registered nurse should:

- craft the vision of clinical nursing education in consultation with MoHSS, UNAM, IUM, and WHTC in order to own it and enhance the probability of positive outcomes for all
- ensure that the vision is specific, measurable, achievable, realistic and time-bound to enable effective evaluation
- ensure that the vision has a clear mission
- develop a mechanism to evaluate the vision in order to determine whether it has achieved the intended goal.
- ensure that the evaluation plan includes a timeline with expected outcomes to facilitate formative and summative evaluation
- work in collaboration with MoHSS, UNAM, IUM, and WHTC to identify potential obstacles that may obstruct achievement of the goals of the vision and clinical nursing education, and devise strategies to overcome it.

6.4.2 Guidelines to address nursing students' challenges

This guideline was developed to provide information to the registered nurse (agent) about the nursing students' (recipients') challenges that were identified in this study that affect facilitation of clinical nursing education. It provides activities on how to prevent and overcome poor interpersonal relationships, lack of commitment, interest and preparedness of student nurses, high numbers of nursing students in practice, peer influences among nursing students, lack of peer support, emotional reactions and unprofessional conduct of nursing students. The activities are described below.

6.4.2.1 Activities to create and maintain good interpersonal relationships

Interpersonal relationship is an interaction between two people who share different experiences and perceptions influenced by their thoughts, feelings, expectations and assumptions (Reibero, Edward, Chapman & Evans, 2015). The interpersonal relationships that exist between nursing students and registered nurses in the clinical learning environment shape the professional identity of nursing students and should be maintained in order to promote clinical learning in practice. The activities for poor interpersonal relationship are listed below.

The registered nurse should:

- encourage student nurses to listen and show respect towards seniors and other nursing students in order to promote good interpersonal relationships
- inspire student nurses to be team players
- motivate student nurses to accept responsibilities when accorded opportunities to carry out nursing activities
- encourage nursing students to respond to registered and other nurses in a polite manner
- encourage nursing students to admit to gaps in knowledge and skills and feel free to ask questions
- allow some flexibility in nursing students order to in order to accommodate them during clinical nursing education.
- persuade nursing students to be aware of, understand, accept and respect themselves
- instil in the nursing students the ability to recognise and understand their own feelings, beliefs and thoughts and to express these in a non-destructive manner.
- influence nursing students to realise their potential and strive towards realisation of their goals
- encourage nursing students to be aware, understand and appreciate the feelings of others
- encourage nursing students to maintain good interpersonal relationships by being honest, punctual and trustworthy
- encourage the nursing student to accept constructive criticism in a positive way in order to uphold good interpersonal relationships.

6.4.2.2 Activities to encourage commitment and interest of nursing students

Commitment and interest in clinical nursing education are very important for the personal and professional development of the nursing students. When nursing students are interested and committed towards clinical nursing education, they are able to explore opportunities for learning. Activities to develop commitment and interest in nursing students in clinical learning follow.

The registered nurse should:

- encourage commitment and interest of nursing students by communicating the vision, sense of purpose and importance of clinical nursing education and clinical learning
- recognise the achievement of nursing students during clinical nursing education whether small or large by acknowledging and praising them for work well done
- enhance motivation of nursing students by reinforcing the tasks that are well performed and emphasising the aspects that were excellently done
- avoid judging students on the basis of their clinical performance and instead guide them in how to perform the required skills correctly
- allow nursing students to repeat or perform an activity step-by-step if it was poorly performed and provide constructive feedback on strengths and weaknesses
- develop commitment by encouraging student nurses to study hard, be dedicated and willing to learn
- promote teamwork and pleasant working relationships among nursing students by allowing them to actively participate and are made to feel part of the team
- stimulate the intellectual capacity of nursing students by involving them in activities that require critical thinking and decision-making

6.4.2.3 Activities to prevent and overcome lack of preparedness among nursing students

Preparedness of nursing students for clinical attachment and clinical nursing education is important. Nursing students are expected to be prepared for the clinical learning environment, both physically and psychologically in order for learning to take place. In order to promote preparedness among student nurses, the following activities are to be carried out.

The registered nurse should:

- orient nursing students to the clinical venue so as to acquaint them with the clinical learning environment, type of ward, equipment, materials and clinical supplies
- orient the nursing students to the hospital rules, policies, regulations and procedures to enable them to work according to the set rules of the institution
- encourage the nursing students to become acquainted with the clinical learning objectives in the specific ward to enable them to strive towards achieving them
- conduct briefing sessions daily with nursing students on what is expected of them.
- conduct regular discussion sessions to enhance the integration of theory with practice.

6.4.2.4 Activities for managing numbers of nursing students in practice

The number of nursing students allocated to the clinical learning environment influences the clinical learning opportunities and experiences of nursing students. Therefore, the number of nursing students in the clinical learning environment need to be managed to enable learning to take place. The activities for managing high numbers of nursing students in the clinical learning environment include the following points.

The registered nurse should:

- obtain a list of the names of all the nursing students that are allocated to the department in order to get to know them
- keep a daily attendance list of nursing students for recordkeeping, identification of any absenteeism and general control
- draw up a clinical teaching timetable for the specific clinical learning environment so that all nursing students get an opportunity to learn
- divide large numbers of nursing students into smaller clinical groups for easy management, control and effective facilitation
- arrange that another registered nurse is assigned to manage and facilitate clinical nursing education with other groups of nursing students
- ensure appropriate supervision by supporting and guiding large numbers of students during clinical nursing education and other nursing activities

6.4.2.5 Activities for controlling peer influences among nursing students

Peers play an important role in the social and emotional development of student nurses. Peer influence can be positive and supportive when nursing students help each other to develop new skills and stimulate interest in clinical activities. However, peers can also have negative influences if they influence one another to be absent from clinical practice, use drugs and alcohol, behave disrespectfully towards registered nurses and other health care professionals or become involved in other risky behaviours. Registered nurses can help by recognising nursing students that are being badly influenced by peers and intervening. Activities for maintaining positive peer influences among nursing students are as follows:

The registered nurse should:

- create an environment of open and honest communication with nursing students that will allow students to tell them about any peer influences that affect their academic learning badly
- look for opportunities to ask the nursing students about peer pressure they have experienced and how it made them feel so as to support them emotionally
- demonstrate a welcoming attitude and assure the nursing students that they are there to listen and help if they encounter negative peer influences
- share their own experience of peer influences and ways they handled them in order for the nursing students to learn from their experience
- encourage nursing students to model healthy behaviours with their peers such as punctuality in the workplace, confidence in performing clinical procedures, dedication and hard work
- encourage nursing students to be assertive, believe in themselves and resist peer influences by refusing to be involved in inappropriate activities
- encourage student nurses to seek positive relationships and choose peers who are making progressive contribution to their learning.

6.4.2.6 Activities for promoting of peer support among nursing students

Peer support is a supportive relationship between people who have lived experience in common (Sunderland & Mishkin, 2013). In this study, peer support refers to the supportive relationship

among student nurses who share the same lived experiences concerning clinical nursing education. Peer support is of substantial significance for nursing students in the provision of clinical nursing education because it promotes teamwork, independent study, critical thinking and problem solving. Activities for promoting peer support among nursing students are as follow.

The registered nurse should:

- create an open platform for peer support for nursing students to support each other while providing guidance and feedback
- encourage nursing students to engage in collegial relationships in order to promote peer support in personal and professional lives
- encourage nursing students to learn from each other in order to uphold peer support
- encourage the use of interpersonal communication skills for open, honest and non-judgemental relationships among nursing students
- demonstrate genuine interest in peer support by being available and accessible to provide support and guidance when necessary
- empower nursing students to explore possibilities and find ways of realising the objectives of peer support
- demonstrate a personal demeanour that is warm, empathetic and non-judgemental of nursing students in matters related to clinical nursing education
- foster positive interactions that respect the rights of nursing students to self-determination
- uphold the self-confidence of nursing students in supporting their peers
- encourage open dialogue among peers in order to improve communication, understanding and cooperation among nursing students
- create a conducive clinical learning environment for successful peer support by making available resources necessary for clinical nursing education.

6.4.2.7 Activities for managing emotional reactions

Emotional reactions among student nurses during clinical attachment can negatively affect their clinical learning. These emotional reactions may include stress, tension, fear and anxiety (Jamshidi et al., 2016). Therefore, measures need to be taken to address negative emotional

reactions in order to promote clinical learning of nursing students. The activities for managing emotional reactions of nursing students follow.

The registered nurse should:

- demonstrate a friendly, helpful and trusting relationship with nursing students in order to prevent negative emotional reactions amongst them
- provide adequate clinical supervision to nursing students in order to avert emotional distress
- encourage peer support and mentoring in order to avoid emotional distress
- encourage nursing students to be optimistic
- encourage nursing students to use the following active coping strategies in order to manage their emotions
    - use a problem-solving approach by taking action and dealing directly with the problem
    - talk about the negative emotions as it will help them to release them
    - utilise positive reframing of their negative circumstances by thinking about the situation in a more positive way
    - use cognitive avoidance by not thinking about the problem
    - use cognitive acceptance by accepting the problem
    - practice emotional discharge by reducing tension through expression of negative feelings.

6.4.2.8 Activities to discourage unprofessional conducts of nursing students

Unprofessional conduct is contrary to the accepted and agreed practice standards of the profession. Student nurses are expected to conduct themselves professionally in a way that maintains public trust and confidence in the profession as unprofessional conduct can tarnish its image. The activities to deter unprofessional conduct include the following points.

The registered nurse should:

- accept responsibility for grooming the nursing students to become professionals by being available to supervise, guide, mentor, coach and support them

- remain exemplary at all times by demonstrating professionalism and ensuring that nursing students are dressed in the appropriate uniform as prescribed by the training institution
- keep the relationship with nursing students on a professional basis by guiding, supporting and directing them during clinical nursing education and resist being too sociable
- discuss with nursing students the reasons for the way they behave in order to identify the cause of unprofessional conduct and initiate remedial action through open communication
- address nursing students' behaviour, including punctuality, dress and absenteeism in order to promote professional conduct and outline the negative consequences for their clinical learning
- explain the importance of students' presence at clinical practice as per allocation and that they should inform the registered nurse in advance when they will be absent or late
- identify unprofessional, unsafe and unsatisfactory behaviour of nursing students in the clinical learning environment and intervene where necessary
- guide nursing students involved in unprofessional conduct in the clinical learning environment to follow the prescribed channels of communication to lodge their complaints to the registered nurse in charge of the department
- talk to and counsel nursing students in a relaxed manner and try to identify the reasons for their unprofessional conduct
- emphasise the importance of professional conduct and ethics in order to uphold the image of the profession
- enforce the policy on misconduct among the nursing students who display unprofessional conduct during clinical practice
- inform the nursing students that they are obliged to observe the appropriate clinical practice guidelines and policies of UNAM, IUM, WHTC and MoHSS with regard to professional conduct
- keep documentation of the unprofessional conduct of nursing students as well as the remedial action that was taken and forward it to the relevant authority and training institution.

6.4.3 Guideline to address registered nurses' and lecturers' challenges

This guideline was crafted to address registered nurses' and lecturers' challenges affecting facilitation of clinical nursing education of nursing students (recipients) in the clinical learning environment (context). Activities are outlined to address poor interpersonal relationships, lack of clinical supervision of nursing students, lack of motivation towards teaching, lack of role clarity of registered nurses, poor communication skills and insufficient knowledge and skills to facilitate clinical nursing education.

6.4.3.1 Activities to promote good interpersonal relationships

Interpersonal relationships in this study refer to the interaction between registered nurses and nursing students. The registered nurse should demonstrate the attitudes and behaviour outlined below when interacting with student nurses in order to establish a trusting relationship (Bruce et al, 2013).

The registered nurse should:

- demonstrate empathy, trust and respect for the dignity and potential of the nursing student in order to establish a good interpersonal relationship
- ensure that the interpersonal relationship is friendly, supportive and enables the nursing students to feel secure during clinical attachment
- communicate and listen carefully to the nursing students while focussing attention on the activity at hand
- demonstrate respect towards each student's individuality and value them as human beings
- establish rapport with nursing student by allowing expression of feelings
- ensure mutual understanding between registered nurse and nursing student
- assist the nursing students to communicate their needs related to clinical nursing education
- use words of encouragement by praising nursing students for any improvement made in activities related to clinical nursing education
- keep emotions under control and avoid arguments with nursing students as these can affect interpersonal relationship negatively

- demonstrate understanding of professional boundaries and therapeutic relationships with nursing students.

6.4.3.2 Activities to encourage clinical supervision of nursing students

Clinical supervision occurs when a registered nurse provides support, guidance and feedback to nursing students to develop skills of nursing practice (Papastavrou et al., 2010). Clinical supervision is an essential component in facilitating learning in the clinical learning environment as it enhances integration of theory and practice, personal and professional growth and provides support (Holmlund, Lindgren & Athlin, 2010; Lindgren & Athlin, 2010). The activities that encourage effective clinical supervision are listed below.

The registered nurse should:

- direct and guide nursing students by acting as a resource person to ensure that students are properly supervised and understand the procedure or activity
- spend time with each nursing students in the clinical learning environment to render supervision, guidance and support
- prioritise, plan and organise the day's activities, including discussions and briefing sessions with nursing students
- engage nursing students through asking clinically relevant questions that demonstrate their knowledge
- use a range of techniques such as coaching and mentoring during supervision of nursing students
- use the steps of the nursing process to plan, guide and supervise nursing students
- use posters and teaching aids that are applicable during clinical supervision in order to enrich learning, stimulate interest and increase understanding of concepts
- monitor and assess the students' progress and level of knowledge, skills and attitudes objectively during supervision in order to determine whether learning has taken place
- provide feedback on students' performance in terms of errors and areas of improvement and provide corrections unambiguously so that students are aware of mistakes made
- facilitate higher order critical thinking in students to enable them to make clinical decisions

- demonstrate role modelling behaviour by being approachable, knowledgeable, flexible, skilled and open minded.

6.4.3.3 Activities to encourage motivation towards teaching

Motivation refers to a person's desire to do the best possible job or to put forth the maximum effort to perform the assigned tasks (Lazenby, 2018). In this study, motivation refers to the desire of registered nurses to maximise their efforts in order to facilitate clinical nursing education of nursing students in the clinical learning environment. Activities to prevent lack of motivation of registered nurses follow.

The registered nurse should motivate registered nurses to develop self-confidence by:

- providing acknowledgement and positive feedback for activities well done
- encouraging each registered nurse to set realistic goals on what they want to achieve concerning clinical nursing education
- using teaching strategies that provide opportunity for equal participation of all nursing students in clinical nursing education
- showing enthusiasm for clinical nursing education.

To increase motivation, the registered nurse should:

- engage registered nurses in discussions that foster a collaborative learning environment show registered nurses how they can make a difference in the students' lives by grooming them professionally and being available for them
- act as a role model by demonstrating confidence, staying positive and being optimistic about clinical nursing education
- be open to constructive feedback from colleagues and nursing students
- demonstrate their own motivation to learn and share their enthusiasm about clinical nursing education
- remain clinically current by keeping themselves abreast of the latest developments in nursing
- love what they do and show their passion and commitment.

6.3.3.4 Activities for lack of role clarity of registered nurses

Role clarity is the articulation of the role expectations that a person undertakes through a process by which the knowledge, skills and boundaries of each role are identified, shared and defined (Allen, 2020). Role clarity enables registered nurses to understand their roles and responsibilities in the clinical learning environment and towards nursing students. Bault et al. (2014) state that poorly defined roles can become a source of conflict and reduce the effectiveness of service delivery. Therefore, registered nurses need to be clear about their roles and responsibilities in terms of clinical nursing education of nursing students. The activities to improve role clarity of registered are listed below.

The registered nurse should:

- be clear about their role of organising and co-ordinating students' clinical learning opportunities in the clinical learning environment
- demonstrate role-modelling by:
    - practising what they preach
    - maintaining consistency in displaying techniques
    - being exemplary in their actions
    - functioning as an expert, being knowledgeable, skilful, resourceful and a good advisor
- play a very important role in supervising and guiding nursing students in learning clinical skills and provide them with constructive feedback
- set clinical learning objectives that are student focussed to help nursing students know what is expected of them.
- monitor whether the clinical learning objectives have been achieved
- facilitate clinical nursing education of nursing students
- demonstrate psychomotor skills to nursing students
- groom nursing students and assess their performance in terms of clinical skills, attitudes and behaviour
- liaise with lecturers, clinical instructors and preceptors and provide feedback about nursing students' performance, challenges and concerns

- furnish evidence to UNAM, IUM and WHTC as required about nursing students' conduct, achievements or lack of achievements and other challenges they experience.

6.4.3.5 Activities to ensure sufficient knowledge and skills to facilitate clinical nursing education

Registered nurses play a key role in the clinical learning process of nursing students because they can greatly influence the students' clinical learning. It is therefore essential that registered nurses possess adequate knowledge and skills that will enable the effective transfer of knowledge to nursing students during clinical practice. Activities to prevent insufficient knowledge and skills follow.

Registered nurses should:

- maintain a current knowledge base in clinical nursing education and nursing practice by attending workshops, conferences and seminars
- attend in-service training sessions to update knowledge, skills and enhance facilitation abilities
- attend educational forums to share knowledge and skills with other registered nurses regarding clinical nursing education and other nursing-related matters
- seek additional information through reading books, journals and guidelines when presented with unfamiliar situations
- seek feedback and support from colleagues in obtaining current knowledge and skills
- use reflective practice to identify personal needs and seek appropriate support to improve knowledge and skills
- undertake regular self-evaluation of own nursing knowledge, skills and practice
- participate in continuing education at advanced levels in order to upgrade knowledge and skills.

6.4.3.6 Activities for preventing poor communication

Communication is a key component of sound relationships, collaboration and co-operation which are all essential for facilitation of clinical education. The ability of registered nurses to communicate and relate to student nurses in the clinical learning environment is crucial to ensure

effective clinical nursing education and learning. Activities to encourage good communication follow.

The registered nurse should:

- ensure two-way communication with nursing students by maintaining effective listening, responding and respect, thus ensuring an open and trusting relationship
- demonstrate openness, be respectful and gracious in all interactions with nursing students, keep their cultural preferences in mind
- use understandable language for effective communication
- gain the attention of the nursing students before communicating in order to enhance understanding and participation in clinical nursing education activities
- use words that are non-threatening when communicating to nursing students in order to create a conducive learning environment and reduce anxiety
- use appropriate non-verbal communication
- listen carefully and maintain eye contact in order to enhance effective communication
- stay focussed on matters related to clinical nursing education in order to facilitate mutual understanding.

6.4.4 Guideline to address support system challenges

The guideline which addresses support system challenges consists of activities to overcome staff shortages, lack of materials and equipment, inadequate time, workload, lack of integration of theory with practice, inadequate opportunities for learning, non-conducive clinical learning environments and lack of continuing professional development.

6.4.4.1 Activities to address staff shortage

Human resources play an important role in the clinical learning of nursing students while in the clinical learning environment. The availability of adequate and appropriate human resources is essential for supervision, support, guidance and facilitation of clinical nursing education. However, the current study revealed shortages of staff in the clinical learning environment. The activities to address staff shortage include the following points.

The registered nurse should:

- prioritise activities in terms of high, medium and low priority and start with high priority activities. Low-priority activities can be delegated to other nurses in order to alleviate the burden on other staff
- organise workload and determine the needs of students by requesting them to assemble the necessary equipment, materials and supplies in order to reduce workload for the busy staff
- be a team player by engaging other registered nurses who have expertise in the subject matter to facilitate clinical education to relieve some of the burden for the existing staff
- know the work plan of the available staff, communicate effectively and support one another
- inform and involve nursing administration when there is a staff shortage in order to consider reallocating staff, calling in additional staff or offering overtime when necessary
- care for themselves by taking a break in between sessions, eating a balanced diet and getting enough rest and exercise in order to manage stress and exhaustion
- maintain a positive attitude and belief that they can cope despite shortages of staff
- optimise human resources in the clinical learning environment.

6.4.4.2 Activities to address lack of materials and equipment

Materials and equipment are essential working tools for management of patient care and clinical nursing education of nursing students in the clinical learning environment (Garcia, Gil, Haddad, Vannuchi & Da Costa, 2013). Lack of materials and equipment resources in the clinical learning contribute to poor integration of theory into practice and as a consequence compromise the nursing students' clinical learning. Activities to address this issue follow.

The registered nurse should:

- procure adequate equipment and materials for the clinical learning environment in order to provide nursing care and facilitate clinical nursing education for nursing students
- keep an inventory of supply and utilisation of all equipment and material resources
- ensure proper storage and disposal of equipment and material supplies
- order stock in order to ensure the availability of equipment and materials
- train other health care workers in the correct use of equipment and materials in order to maximise their utilisation

- encourage other staff to use equipment and materials judiciously in order to avoid wastage
- sterilise reusable equipment
- do regular checks of stocks of equipment and materials
- ensure repair and regular maintenance of equipment.

6.4.4.3 Activities to ensure good time management

Time management refers to the effective and efficient use of time (Booyens, 2010). It involves proper planning and arrangement of time to ensure that the most important work is carried out and that enough time is left for unforeseen emergencies. Activities to address this follow.

The registered nurse should:

- use time constructively by setting goals and determining priorities of activities to be undertaken
- draw up a weekly schedule of activities and meetings and decide on specific times to work on each
- assess time wasters such as cell phones and try to avoid them
- properly plan and organise activities in order to decide which activities can be delegated to other staff members
- prioritise activities and attend to the urgent ones first in order to maximise time usage
- adjust the way tasks are executed in order to save time and minimise delays
- concentrate on critical tasks that will produce results within the expected timeframe
- eliminate unimportant activities
- estimate the time needed for each activity in order to plan
- control time spent on telephone calls and employ a secretary to attend to these
- keep unavoidable interruptions short by focussing on the matter under discussion
- allow time for unscheduled activities.

6.4.4.4 Activities for workload management

Workload denotes the density of the duties to be completed by a certain individual (Mersin, Ipcioglu & Koca, 2018). In this study, workload refers to the amount of work to be completed by a registered nurse in the clinical learning environment in a certain period of time (Khademi et al.,

2015). It is important that a heavy workload among nurses be addressed because it can lead to unintended consequences such as mental instability, fatigue and burnout (Abdul Razak, Yunus & Mohd Nasurdin, 2011; Chipunza & Samuel, 2012; Inandi & Buyukozkan, 2013). The activities to address workload management include the following points.

The registered nurse should:

- ensure effective and collaborative workload planning in the clinical learning environment
- have reasonable workload assignments such that nurses are not functioning beyond individual capacity
- delegate some responsibilities to other registered nurses so as to reduce workload
- prioritise nursing activities in the ward.
- assign a registered nurse to be responsible for facilitation of clinical nursing education
- deploy nurses from less busy wards to come and assist.

6.4.4.5 Activities to achieve integration of theory into practice

Integration of theory with practice refers to the process whereby connections are made between nursing knowledge, values and skills learned in the classroom and the practice experienced in the clinical learning environment (Carelse et al., 2013). It implies that two or more aspects are brought into relation with one another. In nursing education, the registered nurse should integrate theory with practice in order to enhance the personal and professional development of the student nurse. To achieve this, the following activities should be undertaken.

The registered nurse should:

- use inductive and deductive reasoning, thus teaching from the known to the unknown
- apply the knowledge gained from classroom and integrate it with practice during clinical nursing education
- demonstrate psychomotor skills by integrating them with cognitive knowledge
- use the nursing process as a methodology of teaching when integrating theory into practice
- work alongside the nursing student in the clinical learning environment and explain the relationship between theory and practice

- encourage nursing students to reflect on what they have learned in the classroom and reinforce it through demonstrating the required skills
- guide the nursing student to implement and integrate cognitive knowledge into psychomotor skills
- use the procedure manual to integrate theory with practice in order to ensure uniformity in performance of clinical procedures
- demonstrate the required skills during integration of theory into practice while students observe
- include simulation-based learning experiences with patient care scenarios with the aim of promoting the application of knowledge
- motivate and give nursing students an opportunity to attempt the skills themselves while observing their efforts, in order to promote experiential learning
- conduct regular discussion sessions with nursing students to enhance integration of theoretical concepts with clinical practice
- integrate comprehensive debriefing sessions following simulated exercises to foster, recall and reinforce theoretical concepts in practice
- organise directed questions for nursing students based on the skill demonstrated
- allow nursing students to practise or demonstrate skills
- adopt evidence-based practice.

6.4.4.6 Activities to maximise opportunities for learning

Nursing students require adequate opportunities for learning while in the clinical learning environment so as to enable them to learn and practise the required skills and provide safe nursing care. Activities to maximise opportunities for learning include the following steps.

The registered nurse should:

- set clinical learning objectives to be achieved by the students during allocation in the specific department and review these in a specific timeframe in order to promote learning
- enhance learning opportunities by involving the nursing students in departmental activities in order to promote experiential learning

- limit the number of nursing students in order to ensure that all student nurses benefit from the learning opportunities in the clinical learning environment
- ensure that each nursing students is afforded learning opportunities to practise skills during each clinical facilitation session
- allow adequate opportunity for the student to practise the skill learned
- ask the student questions in order to create learning opportunities by assessing their understanding of clinical nursing activities
- promote a reflective-based nursing practice especially in post-clinical debriefing sessions in order to reinforce learning
- create learning opportunities for nursing students by assigning various tasks to them and allowing them to cope on their own
- create learning opportunities for nursing students by providing stimulating and challenging situations for critical thinking and problem-solving
- provide opportunities for nursing students to observe the skilled performance of registered nurses and other health care professionals.
- offer opportunities for simulation practice as this allows repetition and helps the nursing students gain skill and confidence in the procedure
- facilitate nursing students' learning by providing hands-on clinical teaching
- encourage discussions after clinical nursing education to clarify aspects that were not clear

6.4.4.7 Activities to promote a conducive clinical learning environment

The clinical learning environment refers to the interactive network or set of practices that influence learning outcomes and professional development of a nurse (Viscaya-Moreno et al., 2018). In this study, the clinical learning environment refers to the hospitals, health centres and clinics where nursing students are allocated to learn the practice of nursing. The clinical learning environment is a crucial part of students' learning so it must be conducive for clinical learning. Activities to achieve a conducive clinical learning environment include the following.

The registered nurse should:

- create a pleasant clinical learning environment that is conducive for learning by accepting and treating the nursing student as a whole person
- ensure the availability of a space or room in the clinical learning environment designated for clinical nursing education purposes
- orient the nursing students to the clinical learning environment in order to familiarise them with the physical layout
- accommodate all nursing students in the clinical learning environment equally, irrespective of age, gender, level of training, academic performance or social standing
- create an environment where the nursing students feel free to ask for explanations or to participate in ward activities
- create learning opportunities for nursing students in the clinical learning environment by allowing them to pursue their own interests and practise skills in a variety of ways
- encourage nursing students to make decisions in the clinical learning environment on patient care and how best they can learn
- understand the different learning styles of students and acknowledge that they are unique and may not all be able to respond to clinical nursing education in the same way
- demonstrate patience and understanding to students and recognise their learning needs
- recognise the nursing students as part of a team
- strive for good communication and effective interactions with nursing students to create an optimal atmosphere for clinical learning
- ensure adequate provision of equipment and materials in the clinical learning environment
- encourage active participation of nursing students in clinical nursing education activities and patient care to enhance professional socialisation and clinical competence.

6.4.4.8 Activities to encourage continuing professional development

Continuing professional development (CPD) is a purposeful process by which members of a profession are committed to maintain, improve and broaden their knowledge, skills and competence throughout their careers to ensure they retain their capacity to practise safely, effectively, competently and legally within their evolving scope of practice (Mccarthy et al., 2013).

The registered nurse is professionally and ethically responsible and accountable for lifelong learning in order to deliver quality nursing care to patients and facilitate clinical nursing education of student nurses during clinical attachment. The activities to promote continuing professional development follow.

The registered nurse should:

- identify own limitations, shortcomings and needs related to learning for personal and professional growth
- join professional organisations such as the Namibia Nursing Association (NNA) to keep abreast of changes that affect clinical practice as well as clinical nursing education
- attend professional development workshops, seminars, conferences and webinar courses from reputable sources to learn from researchers about new procedures and gain new knowledge from others
- use current and relevant literature and research findings to improve facilitation of clinical nursing education and to keep abreast with the latest professional developments
- subscribe to relevant journals for their own professional development.

6.5 SUMMARY

This chapter described the development, proposed implementation and evaluation of the guidelines for registered nurses to facilitate clinical nursing education of student nurses. The next chapter presents the findings, conclusions, limitations, recommendations and contributions to the body of knowledge.

CHAPTER SEVEN

CONCLUSIONS, LIMITATIONS, RECOMMENDATIONS AND CONTRIBUTIONS OF THE STUDY

7.1 INTRODUCTION

In the previous chapter, the guidelines to facilitate clinical nursing education in the training health facilities of Oshana and Oshikoto regions were drawn up. This chapter presents the conclusion, limitations, recommendations and contribution of the study.

7.2 AIM AND OBJECTIVES

The purpose of the study was to develop guidelines to facilitate clinical nursing education of nursing students in the training health facilities of Oshana and Oshikoto regions, Namibia. In order to achieve the aim of the study, individual interviews and FGDs were conducted and questionnaires were used to obtain evidence that was necessary for the development of guidelines. Four objectives were developed in order to achieve the purpose of the study: describe best practices (through literature) in clinical nursing education; explore and describe experiences of registered nurses and lecturers of facilitation of clinical nursing education of nursing students in practice; explore and describe experiences of nursing students of clinical nursing education by registered nurses; and assess the clinical environment where clinical nursing education took place.

7.3 CONCLUSIONS

The study was carried out in three phases: situational analysis; development of a conceptual framework and development of guidelines. The conclusions from the findings are presented in relation to the phases.

The conclusion was based on the research questions of the study and the findings are presented as follows:

7.3.1 What are the best practices in clinical nursing education?

A narrative literature review was used to obtain data. The findings identified as best practices in clinical nursing education were intersectoral collaboration; stakeholders' involvement; communication; qualities of a facilitator; clinical learning environment; and shared vision, as illustrated in Table 4.34.

7.3.2 What are the experiences of registered nurses, lecturers and nursing students in clinical nursing education?

A qualitative, exploratory and descriptive design was used to explore and describe the experiences of registered nurses, lecturers and nursing students of clinical nursing education. The findings revealed that nursing students, registered nurses and lecturers experienced challenges and there were also support system challenges affecting clinical nursing education and learning, as demonstrated in Table 4.34.

7.3.3 What is the nature of the clinical environment where clinical nursing education takes place?

A quantitative descriptive design was used to assess the clinical environment where clinical nursing education took place. The findings revealed that the clinical learning environment was not conducive to clinical nursing education because 85.2% of registered nurses reported average knowledge and practices; 71.3% of registered nurses reported poor interpersonal relationships; 71.1% of registered nurses had no formal training in either clinical education or instruction; 95.4% of registered nurses were not studying; and 60.1% had no internet connectivity in the workplace, as illustrated in Table 4.34.

7.3.4 What is the appropriate framework for clinical nursing education?

An appropriate framework was developed guided by the evidence obtained from the situational analysis of the study and was based on Practice Oriented Theory (Dickoff et al., 1968) and used as a reasoning map according to the different components of the survey list. The conceptual framework served as the basis for the development of the guidelines for registered nurses to facilitate clinical education of nursing students. The components of survey list as applied to this study were as follows: Agent was the researcher; nurse educator; recipients were registered nurses; context comprised the health facilities; dynamics were motivating factors and challenges influencing facilitation of clinical nursing education; procedure were the guidelines for registered

nurses to facilitate clinical nursing education; and terminus was competent, knowledgeable and skilled registered nurses who are able to facilitate clinical nursing education. The framework was explained in Chapter 5.

7.3.5 How will the guidelines be developed ?

Guidelines were developed in order to mitigate the challenges experienced by participants during facilitation of clinical nursing education. The development of the guidelines was supported by evidence from the situational analysis of the study. The ADDIE model (Molenda, 2015) and framework for guidelines development (MoHSS, 2017) were adopted for the development of the guidelines. From this, four guidelines were developed to address the identified challenges and included a guideline to strengthen best practices in clinical nursing education; a guideline to address nursing students' challenges; a guideline to address registered nurses' and lecturers' challenges; and a guideline to address support system challenges. The guidelines were described in Chapter 6.

7.4 LIMITATIONS

Limitations are restrictions in a study's methodology and/or framework that may decrease the credibility and generalisability of the findings (Grove et al., 2019). Limitations of the study help the researcher to validate the findings from the field in light of the circumstances surrounding the issue at stake. It gives the reader confidence in the research results as they would interpret the data within the context of the limitations faced in the study (Akanle, Ademuson & Shitu, 2020). This study had some limitations that might have influenced its findings, as described below.

7.4.1 Methodological limitations

All studies, regardless of how well-planned or well-conducted they may be, have one limit or another (Ross & Zaidi, 2019). It is therefore important that the researcher acknowledges the study limitations that occurred during the execution of the study. In this study, the researcher acknowledged the research limitations concerning the population, sample size, content of the research instrument and implementation.

7.4.1.1 Population

The population and participants of the study were selected from training health facilities and training institutions in Oshana and Oshikoto regions only. Had a greater number of health facilities been used, this would have provided a more representative sample of the target population. Therefore, these findings should be considered within the specific context and cannot necessarily be generalised to other regions. However, the results can still be used or refined and might even stimulate further research in this area.

The study included students in the 3rd and 4th year of study only. However, students in the 1st and 2nd year of study could have different views and opinions regarding facilitation of clinical nursing education. Selection bias may have occurred as participants who were not available during the data collection were excluded from participating in the study. This limitation could be addressed by conducting a similar study that would be extended to other regions in order to have a better representation of participants from various regions and training institutions so as to make generalisation more feasible.

7.4.1.2 Sample size

Participants from one health centre could not partake in the study because their accreditation certificate as a training institution expired before data collection. Some participants refused to take part in the study which affected the sample size and compromised generalisability. In addition, the sample was obtained from Oshana and Oshikoto regions only; hence the data obtained from the involved participants cannot be generalised throughout the country. To overcome this, a similar study should be extended to other regions in order to improve representivity of participants.

7.4.1.3 Content of instrument for data collection

The quantitative part of the study could have entailed restrictions in terms of the responses the respondents made since they responded using a closed-ended questionnaire. The use of a self-administered, closed-ended questionnaire might have led to information bias. According to Hyman and Sierra (2016), respondents cannot provide in-depth responses because they merely read through the options and tick the one closest to their opinion without further deliberation or elaboration.

7.4.2 Implementation limitation

The interviews were conducted at the educational institution where the researcher was employed. Hence, the researcher was viewed as a staff member and this could have led to participants over-reporting to impress the researcher. Moreover, the study focused on the experiences of registered nurses, lecturers and nursing students on facilitation of clinical nursing education, however the experiences could be both positive and negative. Therefore, the researcher could have identified the positive experiences from participants that enhance facilitation of clinical nursing education. Assessment of registered nurses by nursing students could lead to controversy since nursing students are not yet qualified to assess registered nurses.

7.5 RECOMMENDATIONS

Recommendations provide suggestions for further study that emerge logically from the present study (Grove et al., 2019). In this study, a number of recommendations were made based on the study findings with an emphasis on nursing practice, nursing management, nursing education, further research and general recommendations.

7.5.1 Nursing practice

The study found that there was a need to provide a supportive clinical learning environment that support facilitation of clinical nursing education and optimise students' clinical learning. The study recommends the following:

- consultative meetings should be conducted with stakeholders through, workshops and seminars in order to create awareness, elicit support and inputs.
- guidelines should be disseminated to registered nurses, nurse educators and nurse managers through workshops and in-service trainings in order to make it known and gain their support.

7.5.2 Nursing administration

- mobilise and provide teaching and learning resources for clinical learning education
- provide adequate human, material and equipment resources for effective facilitation of clinical nursing education

- there is a need for recruitment of sufficient workforce to reduce the workload of the existing staff to allow time for proper facilitation of clinical nursing education
- develop and implement a staff development plan for registered nurses in order to upgrade their knowledge and skills.

7.5.3 Nursing education

Facilitation of clinical nursing education is critical for successful clinical learning experiences of nursing students. The study recommended the following:

- developed guidelines should be published in accredited Clinical Nursing and Health Sciences journals to increase accessibility to nurse educators and interested persons.
- developed guidelines should be shared with all stakeholders through workshops in order to create awareness and elicit support and inputs.
- facilitation of clinical knowledge and skills be based on current theories and research to avoid transferring outdated nursing knowledge and skills to student nurses.
- given the challenges that registered nurses are faced with during facilitation of clinical nursing education, there is a need for capacity building and professional development in terms of their roles and responsibility towards nursing students, including teaching methods and supervision.

7.5.4 Nursing research

- similar studies need to be conducted using a broader scope of training health facilities and training institutions in Namibia, in order to gather more information on clinical nursing education, since the current study was limited to training health facilities and institutions in the Oshana and Oshikoto regions only.
- the developed guidelines in this study be validated and implemented in the practical setting.

7.5.5 General recommendations

- There is a need for more preceptors and clinical instructors in the clinical area to enhance facilitation of clinical nursing education and learning of student nurses.

- Registered nurses need to be made more aware of their educational role in terms of facilitating clinical nursing education of student nurses, as this study revealed that many registered nurses were neither willing nor committed to playing this role, and as a result they shifted the teaching responsibilities onto lecturers.
- The poor relationships between student nurses and registered nurses need to be addressed in order to create a conducive atmosphere for clinical nursing education and learning.
- Furthermore, more regular meetings between training institutions and clinical staff need to take place to discuss issues pertaining to clinical nursing education and student learning and to share knowledge, experiences and challenges that are encountered in clinical practice.

7.6 CONTRIBUTIONS TO THE BODY OF KNOWLEDGE

The study identified best practices to facilitate clinical nursing education. It identified challenges experienced by participants including registered nurses, lecturers and nursing students in the clinical learning environment. A conceptual framework was developed which served as a basis for the development of the guidelines which were designed to serve as a guiding tool for registered nurses during facilitation of clinical nursing education.

7.6.1 Evidence for facilitating clinical nursing education

Evidence for facilitating clinical education in the training health facilities of Oshana and Oshikoto regions was generated. The evidence revealed best practices in clinical nursing education, challenges facing registered nurses, lecturers and nursing students as well as support system challenges that negatively affected facilitation of clinical nursing education.

7.6.2 Conceptual framework

A conceptual framework was developed and formed the basis of the development of the guidelines. The conceptual framework could be further used by future researchers as a reference document.

7.6.3 Guidelines to facilitate clinical nursing education

The guidelines for registered nurses to facilitate clinical education of nursing students in the training health facilities are another important contribution to the body of knowledge. It is expected that once the guidelines are operationalised, they will provide clear direction and guidance to registered nurses to address challenges and improve facilitation of clinical nursing education.

7.7 DISSEMINATION OF THE OUTCOMES OF THE STUDY

After completion of the research study, it is crucial that the researcher share and disseminate the findings of the study to the broader scientific community. In this study, the researcher will disseminate the findings of the study as described below:

7.7.1 Dissertation

The approved version of the dissertation will be stored on the UNAM library repository for public use and a hard copy will be made available to the Ministry of Health and Social Services for reference purposes.

7.7.2 Proposed conferences and seminars

The findings of this study will be presented at conferences and seminars nationally and internationally.

7.7.3 In-service training

Presentations will be held at health care facilities during in-service trainings in order to make the existence of the guidelines known to potential users.

7.7.4 Articles

Articles will be extracted from the dissertation and published in accredited scientific journals order to reach the broader scientific community as follows:

Paper 1: Explore and describe the best practices in clinical nursing education

Paper 2: Explore and describe the experiences of nursing students regarding facilitation of clinical nursing education

Paper 3: Explore and describe the experiences of registered nurses' and lecturers regarding facilitation of clinical nursing education

Paper 4: Develop a conceptual framework as a basis for guidelines development

Paper 5: Develop guidelines for clinical nursing education facilitation.

7.8 SUMMARY

This chapter described and discussed the aim and results of the study based on its objectives, conclusions, limitations and recommendations. Also discussed were the contributions made by the findings of this study to the body of knowledge and the dissemination of the study's results and outcomes.

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Annexure A

Permission Letter from UNAM

OSHAKATI CAMPUS
P.O. Box 2654, Oshakati,
Eliander Mwatale Street, Oshakati West, Namibia
☎ +264 65 223 2000; Fax number: +264 65-223 2276; URL: http//www.unam.edu.na

UNAM
UNIVERSITY OF NAMIBIA

26 February 2019

TO WHOM IT MAY CONCERN

Kindly take note that permission is granted to **Ms. Ndapunikwa Uukule**, a student at the University of Namibia, to conduct a research.

The topic is: **Guidelines for registered nurses to facilitate clinical education of student nurses in the training health facilities of Oshana and Oshikoto Regions, Namibia."**

Kindly render them the necessary support and cooperation that they may require.

Dr. Paulina Uugwanga
Assistant Pro-Vice Chancellor
UNAM, Oshakati Campus

UNIVERSITY OF NAMIBIA
OSHAKATI CAMPUS
PO Box 2654, Oshakati
2019 -02- 26
Tel: +264 65 223 2000
Fax: +264 65 223 2271
OFFICIAL

Annexure B

Ethical Clearance from UNAM

UNAM
UNIVERSITY OF NAMIBIA

ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: SON /461/2019 **Date: 13 June, 2019**

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

Title of Project: Guidelines For Registered Nurses To Facilitate Clinical Education Of Student Nurses In The Training Health Facilities Of Oshana And Oshikoto Regions, Namibia

Researcher: NDAPUNIKWA UUKULE

Student Number: 9217266

Supervisor(s): *Dr. H.J Amukugo (Main) Dr. E. Mulenga (Co)*

Faculty: School of Nursing

Take note of the following:

(a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.

(b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.

(c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.

(d) The UREC retains the right to:

(i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,

(ii) Request for an ethical compliance report at any point during the course of the research.

UREC wishes you the best in your research.

Dr. J.E. de Villiers: Chairperson

Ms. P. Claassen: Secretary

Annexure C

Permission Letter from Executive Director of MoHSS.

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198 Windhoek Namibia	Ministerial Building Harvey Street Windhoek	Tel: 061 – 203 2537 Fax: 061 – 222558 E-mail: btjivambi@mhss.gov.na

OFFICE OF THE PERMANENT SECRETARY

Ref: 17/3/3 NIJ
Enquiries: Mr B. Tjivambi

Date: 22 November 2018

Ms. Ndapunikwa Uukule
PO Box 1998
Oshakati

Dear Ms. Uukule

Re: Guidelines for registered nurses to facilitate clinical education in the Training Health Facilities of Oshana and Oshikot Regions, Namibia.

1. Reference is made to your application to conduct the above-mentioned study.

2. The proposal has been evaluated and found to have merit.

3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**

3.1 The data to be collected must only be used for academic purpose;

3.2 No other data should be collected other than the data stated in the proposal;

3.3 Stipulated ethical considerations in the protocol related to the protection of Human Subjects should be observed and adhered to, any violation thereof will lead to termination of the study at any stage;

Annexure D: Permission Letter from Acting Medical Superintended of Intermediate Hospital Oshakati

9-0/0001

REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag X5501
OSHAKATI

Tel: + 264 65 2233000
Fax: + 264 65 221390/224564

INTERMEDIATE HOSPITAL OSHAKATI

Enq: Dr A Kibandwa

2 January 2019

TO: Ms Ndapunikwa Uukule
Cell: +264 81 6130414
Email: nuckule@unam.na

AUTHORIZATION TO CONDUCT RESEARCH STUDY.

This is to inform you that your request to conduct a research study in Oshakati State Hospital have been approved.

Kindly be informed that confidentiality of the patient information seen during your research must be observed, in case of breach of confidentiality you will be charged by the Medical and Dental Council of Namibia Regulation Act.

We wish you all the best during your research.

Yours Sincerely

MINISTRY OF HEALTH AND SOCIAL SERVICES
PRIVATE BAG 5501
07 JAN 2019
OSHAKATI 5500, NAMIBIA
OSHAKATI HOSPITAL

DR K V AMUTENYA
ACTING MEDICAL SUPERINTENDENT

"Your Health, Our Concern"

Annexure E

Approval Letter from Onandjokwe Research Committee.

ONANDJOKWE INTERMEDIATE HOSPITAL

Private Bag 2016
Ondangwa
Namibia

Tel 065 -240688
Fax 065 -240688

ONANDJOKWE RESEARCH AND ETHICS COMMITTEE (OREC)
APPROVAL NOTICE

Ethics Reference #: OREC/0315/19
Name of applicant: Ndapunikwa Uukule
Date: 12/03/2019

TITLE: Guidelines for Registered nurses to facilitate clinical education in the training health facilities of Oshana and Oshikoto Regions, Namibia

Dear Ndapunikwa Uukule

The **New Application** received on **07-March -2019**. was reviewed by members of Onandjokwe research and **Ethics Committee via** Expedited review procedures
On **08-03-2019** and was approved.

Please note the following information about your approved research protocol:
1. The data to be collected must only be used for operational purposes
2. Preliminary findings to be submitted upon completion of the study
3. Final report to be submitted upon completion of study.
4. Separate permission should be sought from the ministry of Health and social services for the publication of the findings.

Yours sincerely
DR .A.Munyika
Chair Person OREC

DR.F.STRATO
Secretary OREC

Annexure F

Permission Letter from APVC of UNAM, Oshakati Campus

CENTRE FOR POSTGRADUATE STUDIES

University of Namibia, Private Bag 13301, Windhoek, Namibia
340 Mandume Ndemufayo Avenue, Pioneers Park
☎ +264 61 206 3275/4662; Fax +264 61 206 3290; URL: http://www.unam.edu.na

UNAM
UNIVERSITY OF NAMIBIA

RESEARCH PERMISSION LETTER

Centre for Postgraduate Studies
Office of the Director
2018 -10- 05
University of Namibia
UNAM

Date: 25/09/2018

Student Name: Uukule N
Student number: 9217266
Programme: Doctor of Nursing

Approved research title: Guideline for registered nurse to facilitate clinical education of student in the training health facilities of Oshana and Oshikoto region, Namibia

TO WHOM IT MAY CONCERN

I hereby confirm that the above mentioned student is registered at the University of Namibia for the programme indicated. The proposed study met all the requirements as stipulated in the University guidelines and has been approved by the relevant committees.

The proposal adheres to ethical principles as per attached Ethical Clearance Certificate. Permission is hereby granted to carry out the research as described in the approved proposal.

Best Regards

05/10/18

Prof Marius Hedimbi
Director: Centre for Postgraduate Studies
Tel: +264 61 2063275
E-mail: directorpgs@unam.na

Date

Annexure G
Questionnaire for Student Nurses

DATE: _____ **INTERVIEW NUMBER_____**

VENUE: _____

TOPIC: GUIDELINES FOR REGISTERED NURSES TO FACILITATE CLINICAL EDUCATION OF STUDENT NURSES IN THE TRAINING HEALTH FACILITIES OF OSHANA AND OSHIKOTO REGIONS, NAMIBIA.

Researcher : Ms Ndapunikwa Uukule
Student number : 9217266
Programme of study : PhD in Nursing Science
Institution : University of Namibia
Oshakati Campus
Eliander Mwatale Street
Oshakati

Purpose of the study: To explore information on the way registered nurses facilitate clinical education and to develop guidelines for them on how to facilitate clinical education.

Dear participant

Please note the following:

1. The questionnaire consists of five (5) pages, including the front page
2. Please do not write your name on the questionnaire because this data collection exercise is anonymous.
3. Participation is voluntarily and refusing to partake will not impose any penalty.
4. Please read through the questionnaire before responding and you have the right to choose not to answer any question that you do not want to answer.
5. All responses will be treated with confidentiality.
6. This questionnaire consists of Sections A, B, C, D, E and F.
7. Thank you very much for taking time to complete the questionnaire.

SECTION A: DEMOGRAPHIC AND HEALTH FACILITY CHARACTERISTICS
For this section, **please tick** (√) in the column which best describe your response.

1. What is your gender?

Male	1
Female	2
Others, please specify	3

2. What is your age in years?

Younger than 20	1

20 - 24	2
25 - 29	3
30 - 34	4
35 or older	5

3. **What is your marital status?**

Single (Never married)	1
Married	2
Divorced	3
Widow/Widower	4

4. **What is your current year of study?**

3rd	1
4th	2

5. **Which type of health facility are you attached to?**

Hospital	1
Health Centre	2
Clinic	3

6. **Which type of nursing ward/department were you last allocated to?**

Paediatric	1
Surgical	2
Casualty	3
Health Centre/Clinic	4
Operating Theatre	5
Gynaecology	6
Medical	7
Psychiatric	8
Maternity	9
Others, please specify	10

SECTION B: CLINICAL ENVIRONMENT

For SECTIONS B through F, please rate by ticking (√) each statement on a 5 point Likert scale, where 1 (strongly disagree) to 5 (strongly agree) which best describe your response

Statement	1	2	3	4	5
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
7. Clinical environment provides student nurses with adequate practical opportunities to gain the required skills					
8. Registered nurses are always approachable by student nurses					
9. Registered nurses always encourage student nurses to ask questions					

10.	Registered nurses address student nurses by their names					
11.	Registered nurses consider student nurses as part of the health care team					
12.	Registered nurses recognize and appreciate student nurses for what they are doing in practice					
13.	Student nurses are accepted as learners rather than as workforce					
14.	Registered nurses are always willing to demonstrate procedures to student nurses					
15.	Registered nurses always encourage student nurses to take part in ward activities					
16.	Registered nurses provide sufficient time to offer clinical teaching to student nurses					
17.	The ward is having adequate number of registered nurses to provide clinical teaching to student nurses					
18.	There are adequate equipment and supplies in the wards for teaching and learning purposes					

SECTION C: INTEGRATION OF THEORY AND PRACTICE

	Statement	**1**	**2**	**3**	**4**	**5**
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
19.	What was learned in classroom is practiced in the ward					
20.	Theory learned in classroom is reinforced in the ward					
21.	There is a conflict between procedures taught in the simulation and real situation in the ward					
22.	Registered nurses are able to integrate theoretical knowledge into practice					
23.	Registered nurses assist student nurses to integrate what was taught in class into practice					

SECTION D: OPPORTUNITIES FOR LEARNING

	Statement	**1**	**2**	**3**	**4**	**5**
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
24.	Registered nurses give student nurses clear ideas of what is expected of them during clinical practice					
25.	Student nurses are made to concentrate on basic tasks e.g. Bed bath, taking vital signs, transportation and being send to laboratory					
26.	Registered nurses allow student nurses to be actively involved in ward activities					
27.	Registered nurses provide enough opportunity to student nurses for independent practice					

28. Registered nurses provide opportunities to student nurses to do return demonstrations					
29. Registered nurses observe student nurses' performances frequently					
30. Registered nurses correct student nurses' mistakes without belittling them					
31. The duration of student nurses' allocation in the department is sufficient to meet the learning outcomes					

SECTION E: REGISTERED NURSES' KNOWLEDGE AND PRACTICES

Statement	1	2	3	4	5
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
32. Registered nurses are knowledgeable and skillful in clinical procedures					
33. Registered nurses do shortcuts when performing procedures					
34. Registered nurses use different teaching approaches/methods during clinical teaching					
35. Registered nurses are always willing to teach student nurses during clinical placement					
36. Registered nurses are committed towards clinical teaching					
37. Registered nurses shift their teaching responsibility to the lecturers					
38. Registered nurses are not interested in teaching student nurses					
39. Registered nurses supervise student nurses' clinical activities during clinical attachment					

SECTION F: INTERPERSONAL RELATIONSHIP

Statement	1	2	3	4	5
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
40. There is a positive atmosphere between student nurses and registered nurses in the ward					
41. Registered nurses communicate effectively with student nurses					
42. Registered nurses maintain a professional relationship with student nurses					
43. Registered nurses victimize student nurses based on the training institution where they are coming from					
44. Registered nurses are labeling student nurses on the basis of their clinical performances					

45. Registered nurses disrespect student nurses during clinical attachment					
46. Registered nurses embarrass student nurses in front of patients and other colleagues in the ward					
47. Some registered nurses are stressed and burst out their anger on student nurses					
48. Registered nurses compare student nurses from different training institutions					
49. Registered nurses ignore student nurses when requested to support and guide them during clinical placement					

END OF THE QUESTIONNAIRE

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

Annexure H
Questionnaire for Registered Nurses

DATE: _____INTERVIEW NUMBER_____VENUE: _____

TOPIC: GUIDELINES FOR REGISTERED NURSES TO FACILITATE CLINICAL EDUCATION OF STUDENT NURSES IN THE TRAINING HEALTH FACILITIES OF OSHANA AND OSHIKOTO REGIONS, NAMIBIA.

Researcher : Ms Ndapunikwa Uukule
Student number : 9217266
Programme of study : PhD in Nursing Science
Institution **:** University of Namibia
Oshakati Campus
Eliander Mwatale Street
Oshakati

Purpose of the study: To explore information on the way clinical education is facilitated and to develop guidelines for registered nurses on how to facilitate clinical education.

Dear participant

Please note the following:

1.The questionnaire consists of five (5) pages, including the front page

1. Please do not write your name on the questionnaire because this data collection exercise is anonymous.
2. Participation is voluntarily and refusing to partake will not impose any penalty.
3. You have the right to choose not to answer any question that you do not want to answer.
4. All responses will be treated with confidentiality.
5. This questionnaire consists of Sections A, B and C.
6. Thank you very much for taking time to complete the questionnaire.

SECTION A: DEMOGRAPHIC AND HEALTH FACILITY CHARACTERISTICS AND TRAINING BACKGROUND

For this section, **please tick (√)** in the column which best describe your response.

1.What is your gender?

Male	1
Female	2
Others, please specify	3

2.What is your age in years?

Younger than 20	1
20 - 24	2
25 - 29	3
30 - 34	4
35-39	5
40-44	6
45-49	7
50 or older	8

3.What are your years of experience as a registered nurse?

1-4	1
5-9	2
10-14	3
15-19	4
20-24	5
25-29	6
30 r more	7

4.Which type of health facility were you attached to?

Hospital	1
Health Centre	2
Clinic	3

•

5.In which region is the health facility you were attached to located?

Oshana	1
Oshikoto	2

6.Which type of nursing ward/department were you last allocated to?

Paediatric	1
Surgical	2
Casualty	3

Health Centre/Clinic	4
Operating Theatre	5
Gynaecology	6
Medical	7
Psychiatric	8
Maternity	9
Other	10

7. How many registered nurses work in the ward/department you were allocated to?

Less than or equal to 4	1
5 - 9	2
10- 19	3
20 or More	4

8. Did you receive any formal training on clinical education or instruction?

Yes	1
No	2

9. Are you currently studying?

Yes	1
No	2

10. If the answer to Question 9 is “Yes”, which course are you pursuing? If “No”, please proceed to Question 11.

Critical care	1
Community nursing	2
Nursing education	3
Nursing administration	4
Clinical instruction	5

Health promotion	6
Advanced midwifery	7
Theatre techniques	8
Others, please specify	9

11. Do you have access to internet connectivity at your workplace?

Yes	1
No	2

12. Have you attended workshops/trainings on nursing education?

Yes	1
No	2

•

13. If the answer to Question 12 is "Yes", when was the first or last workshop/training on nursing education you attended?

Less than or 1year ago	1
2 - 3 years ago	2
4 or more years ago	3

14. Have you attended workshops/trainings on clinical instruction?

Yes	1
No	2

15. If the answer to Question 14 is "Yes", when was the first or last workshop/training on clinical instruction you attended?

Less than or 1year ago	1
2 - 3 years ago	2
4 or more years ago	3

SECTION B: STUDENTS PRACTICES DURING CLINICAL ATTACHMENT

For SECTIONS B and C, please rate by ticking (√) against each statement on a 5 point Likert scale 1 (strongly disagree) to 5 (strongly agree) which best describe your response.

Statement	1	2	3	4	5
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
16. Student nurses demonstrate appropriate professionalism during clinical attachment					
17. Student nurses show commitment and interest towards clinical learning					
18. Student nurses consistently prepares to perform procedures competently					
19. Student nurses are skilled when performing procedures					
20. Student nurses are willing to assist or support each other in clinical matters					
21. Student nurses are negatively influencing each other during clinical placement					
22. Student nurses are well-mannered when they are on practical attachment					
23. Student nurses are always reacting positively when instructed to carry out certain activities or when being corrected					

SECTION C: INTERPERSONAL RELATIONSHIP BETWEEN STUDENTS AND REGISTERED NURSES

Statement	1	2	3		5
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
24. Student nurses and registered nurses maintain a positive working relationship					
25. Student nurses and registered nurses demonstrate a positive attitude towards each other					

26.	Student Nurses and Registered Nurses communicate effectively during clinical placement					
27.	The student nurses' approach towards registered nurses is disrespectful					
28.	Student nurses are always free to approach registered nurses					
29.	Student nurses refuse to carry out tasks when requested to do so by registered nurses					

END OF THE QUESTIONNAIRE

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

Annexure I

Individual Interview Guide for Lecturer

1. **Introduction**

My name is Ndapunikwa Uukule, I am a student at the University of Namibia currently pursuing a Doctoral degree in Nursing Science. I am here to conduct my study and my study is basically looking on clinical education of student nurses that as lecturers you have got also a responsibility to provide clinical education or clinical teaching to student nurses.

2. **Welcome**

I would like to welcome and thank you for availing yourself to take part in this study. This study aims to improve clinical nursing education that lecturers offer to student nurses. The information that you are going to provide will be kept confidential. Anonymity will be maintained; in other words, you are not going to provide names. Upon completion of this study, the information the recording will be discarded.

3. **Purpose of the focus group discussion**

The purpose of this interview is to have a discussion with you on your experiences on clinical nursing education of student nurses.

4. **Ground rules**

- Anonymity will be maintained; in other words, you are not going to provide names
- The information that you are going to provide will be kept confidential
- There is no right or wrong answers
- The discussion will be audio-recorded to enable me to capture all the information.
- Feel free to express your views or opinions without any intimidation or fear.
- The participation in the study is voluntarily and you may withdraw at any time wish without punishment.
- Under no circumstances will you be forced to answer a question that you do not wish to answer.
- Feel free to ask for clarification if the question is not clear.
- Kindly put your cellphone on silence during the interview

5. Questions

QUESTIONS	PROBES
1. Tell me about your experiences on clinical nursing education of student nurses during clinical attachment	• Probing questions will depend on lecturers' responses**.**
2. What are the challenges that you experienced during clinical education?	• Probing questions will depend on lecturers' responses.

6. Conclusion

Thank you very much, we have come to the end of our discussion and I would like to really thank you very much and appreciate your time and your energy as well as the information that you have provided me with. As I have said earlier on, is that this information, upon completion of the study, they are going to be discarded. Your name will not be linked to this information that you have provided and at no any point is your name going to appear anywhere that you have said this. Once again, thank you very much, I really appreciate everything. Thank you.

Annexure J

An Example of Focus Group Guide For Registered Nurses and Student Nurses

1. **Introduction**

My name is Ndapunikwa Uukule, I am a student at the University of Namibia currently pursuing a Doctoral degree in Nursing Science. I would like to use this opportunity to thank you all for availing yourself to take part in this research study that I am conducting. The aim of the study is to improve clinical education that you are offering to the student nurses during their clinical attachment.

2. **Welcome**

I would like to use this opportunity to welcome and thank you all for availing yourself to take part in this research study that I am conducting. The aim of the study is to improve clinical nursing education that you are offering to the student nurses during their clinical attachment.

3. **Purpose of the focus group**

The purpose of this discussion is to have a conversation with you concerning your experiences on clinical nursing education that you offer to student nurses during their clinical attachments.

4. **Ground rules**

- The discussion will be audio-recorded.
- Anonymity and confidentiality will be maintained
- There is no right or wrong answers
- The discussion will be audio-recorded to enable me to capture all the information.
- All participants should feel free to express their views or opinions without any intimidation or fear.
- One person will be allowed to talk at a time in order to get the opinion of each participant.
- The participation in the study is voluntarily and participants can withdraw anytime they wish without punishment.
- No one is forced to answer any question they do not wish to answer.
- Feel free to ask for clarification if the question is not clear.
- Kindly put your cellphone on silence during the interview

5. **Questions**

Questions	Probes
1. Tell me about your experiences on clinical education that you provided to student nurses during clinical attachment	How do you describe the students' attitudes towards clinical learning? How do you describe the students' performances in clinical environment? How do you describe the interaction between registered nurses and student nurses? Other probing questions will depend on registered nurses' responses**.**
2. What are the challenges that you experience during clinical nursing education of student nurses?	• Probing questions will depend on registered nurses' responses.

6. Conclusion

I know you were busy with nursing activities but you have agreed to leave your busy wards to be here. For some of you, I even went to such an extent to come to your departments and call you, and you really agreed to be here. Thank you very much once gain and I really appreciate the information that you have provided, your time as well as your energy. Thank you once more.

Annexure K

Example of Informed Consent for Registered Nurses, Student Nurses and Lecturers

Dear participant

CONSENT TO PARTICIPATE IN A STUDY ON "GUIDELINES FOR REGISTERED NURSES TO FACILITATE CLINICAL NURSING EDUCATION OF STUDENT NURSES IN THE TRAINING HEALTH FACILITIES OF OSHANA AND OSHIKOTO REGIONS, NAMIBIA

Ms Ndapunikwa Uukule, a student at the University of Namibia (UNAM) is conducting a research on the above stated topic. As a partial fulfillment of the award of Doctor in Nursing Science at (UNAM), I am collecting information necessary for the study from registered nurses who are providing clinical education to student nurses during their clinical attachments. Therefore, I would like you to participate in this focus group discussion.

The discussion will last between 45 minutes to an hour. You are therefore requested to participate voluntarily in the study by responding to the questions that I will ask you. The responses will be recorded on a tape recorder and written on paper to ensure that all information are captured. There will be no direct personal benefits, but the findings of the study will serve to provide collective benefit to the nursing profession and the nation at large. However, there are no physical risks from this study, although psychological risks may not be ruled out. Therefore, your participation in this study will assist in the improvement of clinical education of student nurses.

The discussion will be conducted in a private place in order to ensure privacy. The information you provide will be confidential as it will not be shared with any person outside the research team. Your identity will be anonymous as code numbers will be used. The information you provide including the tape recording will be destroyed upon completion of the study. Permission from other relevant authorities to carry out the study will be sought. Your participation in this regard is on a voluntarily basis and you may withdraw from the study at any time you wish without punishment.

To show that you have clearly understood all explanations regarding the study and that you have freely and voluntarily given your consent, please sign your signature below.

Should you experience any problem with this research participation or you want more clarity on this research study, please contact the following people:
Dr H.J.Amukugo, University of Namibia, School of Nursing, Main Campus Windhoek.
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Participant

I have understood the above information and the conditions under which I may participate in this study.

I agree……../disagree…….. to participate in the study.

Participant signature:……. Date:…….

Researcher's signature:…… Date:…….

Annexure L

Transcript of Student Nurses

TRANSCRIBED FOCUS GROUP DISCUSSION 3 WITH STUDENT NURSES

VENUE: LIBRARY BOARDROOM AT UNAM, OSHAKATI CAMPUS

DATE: 21 AUGUST 2019

R: Good afternoon everybody
Ps: Good afternoon Mrs.
R: How are you?
Ps: We are fine and how are you?
R**:** I'm doing fine. My name is Ndapunikwa Uukule, I am a student at the University of Namibia currently pursuing a PhD in Nursing Science. I would like to use this opportunity to thank you very much for having availed yourself to come and attend this focus group discussion. The aim of this focus group discussion is to explore more on the clinical education that you are receiving from registered nurses in the wards or in the departments. I would like to assure you that confidentiality of the information that you are going to provide will be kept because the information will not be shared with any other person outside the research team. Anonymity will also be maintained as you will not be required to give your names and the information that you are giving will not be linked to your name. So, having said that, I would like you to feel free to give your opinions and to give your suggestions on matters related to clinical education. Our discussion is going to take about 45 minutes to an hour and the discussion is going to be audio-recorded so that I make sure that all the information that you are providing me with they are captured. But after completion of the study the information will be destroyed or the audio-recording will be destroyed. So, you don't need to fear anything, just feel free to give your opinion in that regard. I am also kindly requesting you that if you have got a cellphone, then please just put it on silence or you switch it off so that it is not going to disrupt us during the discussion. Now, seeing that we are in a group, I am going to lay some ground rules that will govern us during this time. I want us to respect the views and opinion of one another. So, if a person has said something, even if you don't agree with what that person have said, so we need to respect the ideas of the other person. In this discussion, there is no right or wrong answers, so all the information is valuable that you are going to provide. No mini-meetings are allowed because they are going to disrupt us during the discussion. And if you have to talk, then you have to finger your chance so that you can be given the opportunity to talk and then you have also to talk through the chairperson and I will be the chairperson of this discussion. If a question has been asked and it is not clear, then please feel free to ask for more clarification. If you also want to withdraw from the discussion at any time, you are also welcome to withdraw. Thank you very much.

Now, can you please tell me about you experiences on clinical education that you are receiving from registered nurses during your clinical attachments? What are your experiences with regard to clinical education?

P1: Ok, my experience regarding clinical education is that it was good and it was bad also, where I find myself and some of my colleagues where you have to ask for a specific registered nurse to teach you or give you guidance on some information that are related to our course or let me say our logbooks and some registered nurses are willing to teach us and some can promise us that they will make for you while others they just tell you that they do not have time to teach because of other duties in the ward. But so far, I would say 70% of it was good since if we have come this far, now depending on the years from year one and in my final year now, that some nurses have been helpful even though some have refused to give us that guidance and teaching. We have somehow or let me say, we have made it at this point because of them being helpful to us or me specifically as a student in guiding us on how to do specific tasks and work regarding nursing. So, that's what I can say.

R: Ok, thank you very much. You have just mentioned that some of the registered nurses are refusing to guide you and to teach you while you are in the wards. Now, what are the reasons for their refusal?

P1**:** Sometimes they can tell you that, what you are asking, but we as students or let me say I as a student is asking them to teach for the registered nurse to guide us is, they will say sometimes I do not have time or I am busy, please come back some other time and the time that the nurse can tell you, sometimes let me say is even on a weekend. You can still come on a weekend, sometimes they can promise you to come on a weekend, but then that nurse is not working. Especially when we are in those more of the junior years, let me say first year and second year we did not know how to look at the shift, if maybe the person is really working, you end up coming to work on a Saturday because you have booked to be taught something, but then the registered nurse did not show up. The reason being, I really do not know why a registered nurse would tell you that you can come so they teach you, but then they are not on duty. Or you can just sometimes come and they are there, they are not in mood, they are not in a good mood, they can even tell you that it's not a good day today, so, I don't think I can teach you. I have experience that myself.

R: Ok, thank you very much. You have mentioned about the time constraint, that sometimes they are saying they do not have time to teach you. Now, how does that affect your learning as a student?

P1: It affects me. Sometimes, it depends on how I understand the registered nurse telling me that, because sometimes you can see the person is really busy and you can say ok, if they do not get time, but I as a student I feel sometimes my knowledge is being diminished because sometimes when you ask registered nurse they will refer you to this one that, this one has more knowledge on that and if that person refuse to give you such education and teaching, I feel like I am left behind with some of the things and where I am going to get the information, sometimes the information will not be relevant as the nurse that is going to give you that, they will tell you that, that's all I know and I do not know much about that. So, my knowledge is a little bit minimized if I can say so.

R: Ok, thank you very much. Any other contribution on your experiences of clinical education that you are receiving from registered nurses during clinical attachment?

P2**:** Mmmhh, with my experience from the clinical placement from the clinics to the wards, I have also experience good and bad, but there are cases whereby you find that registered nurse or those

registered nurse in certain departments that do actually come and ask us the students, or me as a student individually on what I am in need of to be taught on. So, those nurses that are actually there for the students or there for us to help us in case that they will come to you, make time and teach you throughout the requirements that you need according to the level of seniority you are at, for example if you are first year, you will be taught, or when I was in first year, you will be taught how to do urine dipstick and as the years are going, they taught us things that we need in those years. Even though, there are those cases when I go to book a certain sister to teach me some procedures and then sometimes some will say, no, I don't know that much, you can go to who and when sometimes you are referred to that nurse, when I go there, probably she is the senior in the department which means she is more occupied with other works that she might not get enough time to teach me or us as students. So, in that case we find ourselves leaving a department or leaving a department after placement without having learned much from that department, which is a negative effect on our knowledge or on my knowledge as a student nurse individually. Jaa, we have those qualified or over qualified so to say registered nurses that she or he will teach you and when you leave that department, you understand whatever you were taught and you will remember it tomorrow and the next day to come. So, in some cases, they are really doing a good job. I wish they are going to keep it up like that and all of them are going to follow in such suit.

R: Thank you very much.

P3**:** My experience on the clinical attachment it's good and bad also. For me what are really disturbs me sometimes, let say, it happens to me like, a second year or third year, then you are assigned to do a job like a task. Then you ask a registered nurse, sister, I'm not sure if what I'm doing is the right way of doing it, can you please just help me correct me. Then they will tell you, my dear you are a senior, what kind of a senior who doesn't know how to do this and this. But for me I expect for them to correct me since I am a student but then sometimes the way they react they will be like, you are supposed to know, but if you are a student, you are not supposed to know everything as you are being taught from year one to year four. So, that way I think if it's taught to someone who doesn't really understand the timing and the fact that maybe they are also going through some difficult time so that they are just displacing their anger on you, you might feel bad and blank, no I don't want to work with this sister or I don't like this department. But at the same time, if you come back again to those same sisters, asking the same thing or to be taught about something, they would willingly help you. So, my experience is like, I think it depends on also the timing, how we approach them and also their social whatever that is affecting them. That will also affect us on our learning process as students.

R: Ok, thank you very much. You have mentioned the issue of asking to be guided on certain a procedure and then the registered nurse will then say, but you are a senior student, how does it happen that you don't know and so and so. Now, from your own perspective, how does it affect your clinical learning? So, how does that statement affect you clinical learning**?**

P3: On the clinical learning now, cause when you are told like that, let say you are a third year and you are told, what kind of a third year a who doesn't know how to do for example a vaginal examination and have been taught in the second year? Now, on my clinical experience, I might avoid working with that sister, but that sister might be the one who is very knowledgeable or maybe a senior. Now, it means I have already viewed her as someone who is not willing to help me in

any way of which maybe the other ones are juniors, they also refer you to the same senior sister to teach you more. So, if you are told like that and you are someone who is saying, because they answered me rude, I will not go back to them, you limit your knowledge, it will limit your knowledge because there are some of the things that same sister is supposed to teach you and guide you most of the time, but you can't open up to her and say, sister, can I get guidance. And at the end of the day, you will end up doing wrong things because you are scared to approach them, you are scared now maybe if I go to her again asking a different question, she will still be saying, you are a senior, why don't you know this? So, it depends on students whether, now you need to understand like, now you need a positive mind so that you said yourself, of course they said this to me, they said I am a senior, but if you don't know, you don't need to lie to yourself, you need to go and approach them and say, sister, yes, but I really don't understand, can you please guide me so that next time I don't come back again. So that your knowledge from there, I am sure if after you have been taught again then you will not forget. So, it just need you to approach the again and again so that you continue maximizing your knowledge or getting more from them despite whatever they are saying.

R: Ok, thank you very much. But, will they be willing to assist you then if you ask them or approach them again?

P3: Personally I have done that, that's what I do. I don't mind the response they give me at first. I go back again and say, sister, can you please. At the end of the day, they'll end up saying, ok, you, you are always on me, let me just teach you so that you get to know so that next time you can do your things on your own. So, for me, I really don't mind whatever answers they give me, because I know at the end of the day, is me who is benefiting, them they have benefited already. So, its me who needs that knowledge that they have, so I have to go and talk to them, I don't know if he's changing the tone of the voice or the attitude, as long as I am getting that knowledge that they have. Because at the end of the day if they see that you are really eager to know that which you are not sure of or you don't know, they will sit down with you, they will teach you very well.

R: Thank you very much. Is there still any other contribution on the experiences on clinical education?

P4**:** Ok, my experience about the teaching is, sometimes is very effective, sometimes is not so effective. And in cases of it not being effective, sometimes you ask a sister to teach you a certain procedure and they have to fit you in their busy schedule, for instance, maybe that sister is working AM that day or PM, so, they ask you to observe what they are doing and they take that as teaching. So, sometimes as they do the procedure, they don't really do the procedure fully, so sometimes they do it in a shortcut and they won't really have time to explain everything. So, the knowledge that you get there is very limited. But there are times that they are willing to sit down with you, show you everything, the procedure from A to Z.

R: Thank you very much. You have talked about the fact that sometimes the registered nurses are doing shortcuts, so they don't do the full procedure as it's supposed to be done. Now, what are the reasons that they are doing shortcuts?

P4: Ok, sometimes the sisters, ok, maybe for the experienced nurses, they feel like they are more experienced maybe, they are used to do certain procedures, so they won't really show you as a

student how to do everything step by step, so they just do it in a way you will not really get everything and have full knowledge on that certain procedure.

R: Thank you very much. And how does this shortcut affect your clinical competence in various nursing procedures?

P4: So, I feel like it limits your knowledge. So, if you are required, ok if you graduate and become a nurse and you are asked to do that procedure as a nurse and you have not obtained enough knowledge in your practical years, so might end up doing this as well, this procedure also in a short way that you have, in a way that you have been taught. And sometimes you might miss something and you might not do the procedure well as it supposed to be.

R: Ok, thank you very much. Now, I want to have this one clear. How do you describe, or how are the registered nurses committed to guide, support and teach student nurses? How committed are they, to support you, to guide you as well as to teach you?

P5**:** I think that some of the registered nurses are not committed and I think some of them do not, I don't know, but I don't think all of them knows that teaching students is one of their, its in their scope of practice. Because sometimes, you may go to a nurse, asking for assistance but they are just not showing any interest just for no reason. They will not tell you, maybe they are going to make some time to teach you or, they just do not show any interest. So, but some of them are committed because they, like for me I've seen it, you find a nurse coming to you asking if you need any assistance, any teaching or maybe she will just prepare a topic on this on the departmental she is working and then she will call you and she will teach you even if you did not ask for the assistance. So, I think some of them are and some of them they are not really committed.

R: Thank you very much. You have mentioned that some of the registered nurses are not showing interest towards students or towards teaching students. Now, what are the reasons that they are not showing any interest?

P5: Like as I said, sometimes they do not communicate why they do not want to teach you, but some of them, they blame it on time, that they are busy or like, there is also sometimes is the thing you want to be taught as there are some specific things you need to be taught about a condition and it is rare and they usually do not have much information on some of the conditions because they are rare. So, sometimes they might not want to teach because they say they do not have sufficient knowledge on that topic.

R: Ok, thank you very much. Any other contribution?

P6: Like to guide us students, it depends also on the experience that nurses have. So, there are nurses who have lack of experience and it comes maybe because when they were students they were also not committed. So, it makes that specific nurse not to be interested or committed in teaching the students. And the other thing again it depends on the level of students they are. Like some of the nurses they don't like teaching first year students because they know that it will really consume time, it will require time to make this specific student to understand. But when it comes to the third year students or fourth year students, these people they are already used to the clinical practice, they have been practicing, so it won't be difficult to them to teach these students.

R: Thank you very much. You have just mentioned that some of the registered nurses look at the level of the students, and you have specifically mentioned about the first years that some of the registered nurses they don't like to teach the first years because its time consuming. Now, if they are not willing to teach first year student nurses, how will these students learn and how will they gain the skills of doing procedures if the registered nurses are not willing to teach them? Because these people are just fresh from school and they don't have any experience when it comes to nursing and the registered nurses were then supposed to guide them, but now if they don't want to, how is it going to affect the students learning?

P6**:** Yes, it's obviously it will affect the learning of the students negatively. They won't be able to know a clue about nursing and this also bring fear in the students that to see like the nursing profession is a difficult career. Because if the nurses they are not willing to teach the students, then it will be hard for the student to learn. So, it really affects them negatively.

R: Ok, thank you very much. Is there still any other contribution on that point?

P7**:** Especially the first years, they are more, they have more knowledge on theoretical part and when they go there, they need more on practical part and the nurses are not willing to teach them. So, I think the students will lack knowledge from the beginning when they are in first year.

R: Ok, thank you very much. You have mentioned that the first years they have got more knowledge on theoretical part. Maybe can you just elaborate on that point?

P7**:** Because they don't get much allocated to the clinical area. When they are doing their procedures, the more procedures they are being taught at school or at campus. When they go there, they need to put those procedures in practice and also to relate them, when they are taught here at school, how are they applied there, how are the nurses doing them there. So, they find it difficult like to put it in practice when they are not being taught.

R: So, what you are trying to say is that there is a theory-practice gap. So, they are not able to integrate or to relate the theoretical part into practice?

P7: Yes

R: Ok, thank you very much. Any other contribution on that?

P8**:** I think some of the registered nurse they are committed to teach the students, for example on my last allocation, the in-charge asked the student to write the list of the procedure which is still to be taught. Like the second years and the fourth years.

R: Ok, thank you very much. The next question is, how do you describe the registered nurses skills in performing clinical procedures? How are their skills when they are caring out procedures?

P8: I think they know the procedure, but they do it in shortcut. They are not doing it from A to Z, because I think maybe they think that if they are doing the procedure from A to Z is a wasting of time or maybe because they will not finish early because there is too may patients waiting in the queue.

R: And how does this shortcut affect your learning?

P8: This shortcut is affecting us because you can just copy how they are doing it. We just copy how they are doing it, when we are going to be graduated we are also doing the same.

R: Ok, thank you very much. Any other contribution?

P9: I think their skills also depend on the time they have spent on the particular department. So, if you approach a nurse who is new in the department to teach you a specific procedure, she will refer you to the next person, simply because she will tell you that I am new in the department and where I came from, form the other department, we are not use to come across with that specific procedures.

R: Ok, thank you very much.

P2: What I have observed is that, in some departments, there are specific nurses who are literally the ones that teach the students. You will find a ward, you will be like, no, in this ward is only sister who and acouccher who does the teaching. I don't know whether is simply because of the seniorities, many of them have been in the wards for sometimes as it was mentioned previously. And in some cases, is probably because they are willing to teach and they understand certain procedures or things to be taught. So, they are the ones that are given the platform of teaching. But there are those that don't like teaching as it was mentioned either because they are new in the departments or they don't know how to give out the knowledge to others. Some of them they do know as they can actually do the things in the service, but they don't know how to give the knowledge to others.

R: Ok, thank you very much. So, you have mentioned that they don't know how to give the knowledge to others. Can you just give more clarity on that point?

P2: In a simple form on that point is that, let me say Nurse X know how to put up an IV aseptically for instance in preventing infections. If you are to ask him or her to put up that IV for instance, she or he will do it perfectly. But if you are to ask him or her to teach others how to do it, is like the person is going to have difficulties in doing that. I don't know whether is it because of personal backgrounds or what are the contributing factors for them not to be able to provide the knowledge to others or she or he won't literally give the knowledge the way you expect as some of the other nurses are doing it. I don't know is it because of the background or because of personalities. That's the reason why I have mentioned that point.

R: Ok, thank you very much.

P3: On the skills for the registered nurses when performing procedures, most of them they are literally good. Like, there was mentioned a point of shortcuts, they do shortcuts, but I have seen most of the procedures that requires aseptic technique, they make sure that they maintain that technique. Because whenever they are teaching a procedure, they make sure that they teach you how to prevent infections, because they always say infections can be difficulties to treat, so is much better to manage the condition that the patient has than adding an infection to the patient's condition. It's gona be difficult. So, they do the procedure shortcut, but most procedures that I have observed that requires the aseptic technique that part they don't miss it out, they always make sure that they do the procedure aseptically.

R: Ok, thank you very much. How do you describe your interactions with registered nurses? How is your relationship?

P3**:** Ok, on my side I can say, most registered nurses are, the relationship with the students is ok, is good. Because what I understand is, as a student, personally as a student, I respect registered nurses because they have the knowledge that I want from them. So when they realize that you respect them, they open up to you and you end up being like, anytime you want help, you just run to them because whenever you need help they are there for you to help you. So, some of the interactions are, I can say, personally I haven't met like that really difficult registered nurse. I always go back and make sure that our relationship is good so that next time when I want something from them or teaching on another procedure, they are there to help me, even though sometimes they are kind of aaaa, no time, no this. If they see you like, the student wants to learn more, they'll end up even like what my colleague said, calling you, come if you have got anything to be taught or just come so that we do something together. So, I think the interaction depends on our attitudes as students or as registered nurses.

R: Ok, thank you very much. Any other contributions? How is the interaction?

P1: I think like; interaction also depends on the student competency. For instance, if you are allocated in the ward and the nurses noticed that you are very hard working and you are willing, you have the will to learn, they are more helpful towards you and there's an open relationship because they know that you want to learn and they are willing to help. But sometimes if they see that you are not interested, then they don't really try to help and there's not much really interaction during the placement. And also I think it depends on how many times you are allocated at a certain ward. So, if you are allocated at the certain ward for more than three times, the nurses get to know you and yes, you are also, you also get to know them and you interact well, you approach them easily if you have spent more time with them.

R: Ok, thank you very much. You have mentioned that if a student is not that interested, then there is no much interaction or the relationship between the student and the registered nurse is not that good. Now, how will that affect your clinical learning, your clinical skills as well as your clinical competence?

P1**:** Ok, as a student, if you are not willing to learn, then that will affect you negatively because if you don't build the relationship between the nurses and yourself, they'll not be more willing to teach you and you will not gain more knowledge on specific procedures in that department. So, if you don't have the will to learn, then you are not going to get anything, you will leave that department with no knowledge. And also the nurses, also not interested because sometimes people are different and the nurses sometimes know that they can tell that this student nurse needs assistance, maybe the confidence is not that high, so maybe a certain nurse would want to approach you, but if you show no signs of willingness to learn, then they will not approach you to teach you. So, you'll just leave the department with no knowledge

R: Ok, thank you very much. So, can you just clarify this point? If you are to be taught or if you are to do a procedure with a certain registered nurse, who is approaching who?

P1: Ok, it's the student's responsibility to approach the nurse. So, because you are the one that knows what you want to be taught. But there is just time when nurses, because of experience they know other student nurses come here and they ask for this, so there are times they see you don't, you have not approached, so they ask, don't you have these to be taught in your book or something like that?

R: Ok, now, when you are to be taught something, or you are to be taught a certain procedure, so you contact or you inform that specific registered nurse?

P1: Yes

R: And then, are you to be taught on the same day that you came to inform her that you want to be taught or how do you do that?

P1: Ok, usually you are supposed to book and then they find time and they have also to prepare because sometimes the procedure that you want to be taught on is not something that is done every day. So, they will need to revise and come back to the books and also read a bit. But sometimes maybe is just a minor procedure something maybe you book and by chance the sister was going to perform that procedure. So, they can ask you to attend and after attending the procedure they will come back again and sit with you and explain further.

R: Ok, and are you always booking the registered nurses and give them sufficient time to go and prepare?

P1: Sometimes yes, sometimes no.

R: Sometimes no, why are you not giving them sufficient time to go and prepare and to explore more?

P1**:** Because sometimes, the students are so desperate they want to finish their books some time. So, if the sister tells you she needs more time then you feel like it's gonna take longer, so you needed it soon so you also feedback. Sometimes we don't really give the nurses time.

R: Ok, now, if you don't give the nurses enough time to go and prepare, from your own point of view, do you think that if you just approach the nurse that day that I need to be taught this, and she teaches you, do you really, do you think that you got, she's giving you sufficient information, sufficient skills on how to carry out that procedure?

P1: It will depend on the type of procedure. Because sometimes in most cases the procedures that student will require, that will approach the sister on spot, are mostly just minor procedures. So you feel like or maybe you have been taught a procedure already but you still need to do it in your practical book, so you feel like, you just need a sister to give you, just to go back so you refresh the knowledge that you already received.

R: Ok, thank you very much. Is there still any other contribution on the interactions?

P4: I think the relationship between the nurse and the student also depends on the manners of the student. Because, I mean the registered nurse will not hold grudges against you just for nothing. Usually the manners of the student will determine the relationship. And also if the student nurse is

not willing to learn for example the student will just come at work and she is just sitting down, she doesn't even want to help the nurse, so the relationship mostly depends on the student.

R: Ok, thank you very much. Can you just elaborate a bit on, you have mentioned about that the student manner will determine the relationship between the student and the registered nurse? Can you just clarify that point please?

P4: Jaa, I mean that for example, let me say the registered nurse wants to send you and your facial expression shows that you are not happy that she is sending you, so you do not expect to and you want something to be taught or you want to witness something, you don't expect that nurse to be also happy with you because you are also not willing to help them.

R: Ok, thank you very much.

R: Now, what are the challenges that you as student nurses are encountering during clinical education when you are on clinical placement?

P7: Ok, just some of the few of the challenges that I can mention. When we go to the clinical practice, we go there to learn, so there are times we have our practical books that we have to do and there are procedures that we are supposed to do. But then, we go to some of the departments where it's very busy. So, all the students are delegated to do the work in the ward, but now the time comes when you have to book a certain sister that I want to be taught this, the sister will be saying, I'm busy, it's very busy here, I won't get time. Ok, the day pass by, then the next day comes again. You book, no I won't get time. So, this is one of the challenges that students face when the wards or any clinic is very busy or the sisters they won't get time to teach you. And sometimes it's true, the patients are there, let me say for example at the clinic, a lot of patients come at the clinic and even us students sometimes we know that there is no time. If they take time to teach you sometimes, then the patients will go late. So that is one of the challenge that I have realized. The other challenge again that I have detected is nurses attitudes, because it's like this that different people have different attitudes and behaviors. Sometimes nurses behaviors are make it difficult for us to approach them or even the way they respond to us. Because sometimes you go to a certain nurse that you are booking, ok, but then she will be saying, why did you come to me? Am I the only nurse who is here, why you don't go to who who? So, is so discouraging. Or some nurses they, ok in case if you don't know something, some of the nurses, the way they will just shout at you, instead of correcting you in a correct manner because you are still learning, you are a student and you cannot just make a mistake because you want to make it. Sometimes is because you don't know, but the way the person will react or shout at you, even among the patients, so you will feel so down yourself. From there you even will be looking down on yourself, like I'm useless, I don't know anything. So, those are some of the thing I can just mention.

R: Ok, thank you very much. You have mentioned about the way the registered nurses are treating you that make you sometimes to feel that you are useless and you don't know anything. Now, how does that affect your learning?

P7: From there, when you are being, ok, mostly it's when they say negative things on you. They say you don't know anything. Let me say you are in fourth year, aahh, you are in fourth year and you are waiting to be a registered nurse next year, but you don't know anything, so you feel down

on yourself like, you are so useless, you don't know anything. So, it really affects you negatively because you will be discouraged, you won't be motivated but you will be discouraged like you don't know anything. It really affects you negatively, even psychologically.

R: Ok, thank you very much. Any other challenges? What are the challenges that you have encountered in practice?

P3: When we are in practice, we are a lot of different institutions from where students are coming from. So, most of the challenge is, now the registered nurses are comparing students from different institutions. So, you find yourself you are in fourth year or let say third year and let say the PEN and the PEN like what I have noticed their programme is put together so that the things we are supposed to be covering from first year to fourth year, most of those things they cover them in first and second year. So they are like ahead of us in some of the procedures. Now, when you ask to be guided on something, they will be like ooohhh, aayee, you are just in fourth year and you don't know and yet look at this one she is just in second year, but she knows everything. So, those things neh (laughing), they really, now it depends on who is being said this things too. For me, I really don't mind, because sometimes I take it like, sometimes is true, because what we normally do when we are at practice, we really don't go back to our books that much, to our theoretical part, so that you can complement it or include it into the practicals. So, for me is kind of disturbs me that moment, but later I tell myself, ok, since she said I don't know, I will just go back to my book and fine tune. But later I will just come back again and say sister, but that moment when you said this and this and this, I didn't get, still I don't know that thing, can you please do this? So, its kind of difficulty. Now it depend on what kind of student are you, because you are working like UNAM we are there, Welwitschia is there, the PENs are there, the Gammams are there, so mmhhh, they'll compare. Aahh, my dear, those ones from Rundu, they know everything and they are what and you, you just don't know anything. Those are some of the things. So if you are being told like that neh, sometimes you might fear going to approach that certain registered nurse or because sometimes it's like its already in everyone in that department. When you just go into a department you will be told, so, we are expecting you to be like Welwitschia students who were here because they do this and this and this and this. Maybe it's your first time being there and you are already being compared to other students, yet you haven't worked with them, they haven't seen your competencies and they are already comparing you to others. So, sometimes you might feel down like, aaahhh, so what good are they expecting from me when they are already saying those ones are good or maybe the second years who were here they don't know anything. So, I think there is a part of comparison that really affects us students.

R: Ok, thank you very much. Any other challenge?

R: Ok, in the absence of other challenges, so what can be done to improve clinical education then?

P2**:** Our perspective, I think what should be done to improve clinical education. First to start with us students. What do I mean by starting with us students? It was mentioned previously that as students we need to be committed, we need to show willingness in learning, we don't have to, let me say probably you felt bad because of what the sister mentioned to you on that time, but you don't have to have that for the entire year, you have to take that for that time and tomorrow you have to come back humbly requesting the sister or whoever to teach you. So, starting with us students making sure that we are trying to be on time, we should avoid absconding from work

places, we should strive to maintain and feed the relationship between us students and the nurses which is going to lead to a good relationship which will make everything easy as it was mentioned that they will be willing to teach you, it's going to be easy for you to approach them, even though they know they don't have enough time, they will try to make time because they know this is who, he or she has tried this. She has been working with her, she is obedient, you can send her here and there. So us students being committed and trying to be students and trying to do what we are here for, I believe everything is going to be ok and the practice at the end of the day everybody will graduate with competent in nursing.

R: Ok, thank you very much.

P8: I also think that maybe institution should come up with names of registered nurses specific registered nurses at clinical areas who are just there responsible for teaching students, since some they take it as it is not in their scope. And maybe the institution must also come up with this training to guide those registered nurses on how to help the students, because just to approach anyone and teach you it's really not an easy task. Because sometimes they will say, is it my responsibility? I will only teach you if I want, it's not my responsibility. So, I think, if the institution come up with the specific names that ward 6B, registered nurse who and who and who, you are responsible for teaching students. And maybe the institution can come in again to refresh those specific nurses, just to guide them. It will be easier also for the students to gain knowledge.

R: Ok, thank you very much. When you are talking about institutions, what are you referring to?

P8: Institutions, I am referring to University of Namibia, the Welwitschia, the Gammams and the Ministry also and the IUM. Maybe they should come together since they are striving to help the patient; they must maybe form up a committee and see to it on how best they'll assist students to get more knowledge when they are allocated at clinical areas.

R: Ok, thank you very much.

P4: Like it was said, I think that for us students to improve the learning that we get from the registered nurses, it has to start with us. The relationship between us and the nurse will also determine how helpful they will be. And I think also that it's important for all the nurses to be made aware that it's their responsibility to teach the students and make sure that they gain all the necessary knowledge that they need before they leave that department. I think (laughing) that very important. They need to know because some of them it's like they don't know if they are responsible for that. It's like they are doing you a favor or something, it's not like something in their scope of practice.

R: Ok, thank you very much. Now, whose responsibility is it to make the registered nurses aware of their teaching responsibility?

P4: I think the institution, like if the students are from UNAM, and then they have to send someone at least to tell them that, because they are students from their University. So, they have to tell them that our students are here and we need you to help them.

R: Ok, thank you very much.

P6: Ok, just to improve our clinical teaching, both students and nurses we need to be in one spirit. Because mostly what affects also, ok, let me also not say mostly. What affect also is our behaviors. If you are stressed, leave your stress outside the hospital; don't come with it inside the hospital. Because sometimes the person may be refusing to teach just because that person was stressed or maybe was beaten from home, so all those things they also affect. So, all the troubles we must leave them outside the hospital when you come inside the hospital it's another spirit, which is the spirit of working together, spirit of caring for the patients. That the point I have.

R: Thank you very much. Is there still any other contribution before I conclude?

R: Ok, in the absence of any other contribution, I think we have come to end of our focus group discussion and I would like once again to use this opportunity to thank you very much for having taken time to come and attend this focus group discussion. I would like to thank you very much for your valuable contributions and I am sure that the information that you have provided will assist in the improvement of clinical education that is being provided to student nurses. Once again, thank you very much and have a fruitful day.

Ps**:** Thank you.

Annexure M

Transcript of Registered Nurses

TRANSCRIBED FOCUS GROUP DISCUSSION 2 WITH REGISTERED NURSES

VENUE: A ROOM AT MATERNITY DEPARTMENT IN ONANDJOKWE HOSPITAL

DATE: 11 JUNE 2019

R: Good afternoon every one
Ps: Good afternoon.
R: How are we?
P: We are fine and how are you?
R: I'm doing fine, thank you. My name is Ndapunikwa Uukule, I am a student at the University of Namibia currently pursuing a PhD in Nursing Science. I would like to use this opportunity to thank you all for availing yourself to take part in this research study that I am conducting. The aim of the study is to improve clinical education that you are offering to the student nurses during their clinical attachment. I would like to assure you right from the beginning that confidentiality of the information that you are going to provide will be kept. In other words, the information that you are going to provide will not be shared with unauthorized persons. Anonymity will also be maintained as you will not be required to provide names. And the information that you are going to give, will not be linked to your names or to a certain individual. Our discussion is going to be audio-recorded so that we are going to make sure that all the information that you are going to provide will be captured. The duration of our discussion it will be about forty-five minutes to an hour and during our discussion, you will not be forced to respond to a question that you think that you don't want to respond too. And you are also free to withdraw from this discussion at any time that you want to withdraw without being penalized. Seeing that we are in a group, I am going to lay some ground rules that are going to govern us during this discussion. 1. So, we need to respect the views and opinion of one another, so even if you don't agree, so we need to respect the opinion of that person. 2. There is no right or wrong answer, so all the information that you are going to provide are valuable. 3. You need to feel free to talk, as I have already said that whatever you are going to provide it's not going to be linked against you or against your name, because I will not need your names. 4. Confidentiality of the information will be kept, so what we are going to discuss here it should remain here and even upon completion of the study, this audio-recording is going to be destroyed. 5. I would like to request you that one person should talk at a time so that we will be able to hear one another and you have to speak through the chairperson. 6. Now, having said that the information is being audio-recorded, I am also kindly requesting you to speak loud so that the recorder can capture your voice. 7. I am also kindly requesting you to put your cellphones on silence so that its not going to disrupt us during the discussion and please try to speak loud as I have already said. Thank you. Is there perhaps any question before we start? Ok, in the absence of any question, I am going to ask you then some questions. The first one is, tell me about your

experiences on clinical education of student nurses that you are providing to them when they are on clinical attachment.

P1: Ok, well, thank you for the question. According to my experience being having students allocated in our clinical setting, I find it is a good opportunity for sharing learning experiences with students together. Many students are so committed to their studies or to their practical work whenever they are on clinical allocations. Even though, we find it sometimes difficult to manage a lot of students since we don't have more registered nurses to train these small students that are being allocated here. But anyway, based on what we do here, we always try by all means to share this group of students depending on the registered nurses on duty. So, let me say, a group of, I can cater a group of around, not more than five students, just to demonstrate a procedure. It makes them to acquire more information or to understand what is being demonstrated to them. So, once I am done with the first group, I can take the next group if they are more than maybe five students per day, I can take a next group to demonstrate another procedure. So, the reason why I'm saying, you find it sometimes difficult is because of the amount of students being allocated, the ratio to nurses here is a bit high. So, what we experience also as registered nurses here is a good opportunity that we get when we are teaching our students, to also increase our knowledge when it comes to their books, we find out that some of things in their books, they are changing as time goes, so we experience to, we happen to learn new procedures or new things that are being, that were changed in their procedure books. So, it's a good learning opportunity where we are getting whenever we are teaching our students. It's also a good learning opportunity because we go back to our books just to refresh for me to come and demonstrate certain procedures to my students.

R: Thank you very much. I would like to make a follow up question on that. You have talked about the students and registered nurses' ratio. You have mentioned that the students number is too high compared to the number of registered nurses that you are having in the unit. Now, what do you think how does this influence learning?

P1: Thank you for the question again. It doesn't really cause much influence as I have said, we share the groups, but the time of having students to, but the time that we take to attend to our students might be shorter because you have to get opportunity to teach other students. And also, it also affect their, let me say maybe they are learning, some are learning, some are slower learners when it comes to a large group they cannot capture everything that you're demonstrating to them.

R: Ok, thank you very much. Now, for this specific students that are not able to capture everything when you are demonstrating to them, what do you do to them, are you just leaving them like that or do you have another alternative way of guiding them?

P2: So, in this case we take time for next day to attend to them and try to ask or re-evaluate on what we have done. Where there is a need, we still help them to teach or to demonstrate more with them.

R: Thank you very much. Any other experiences on how you experience clinical education of student nurses in your departments?

P2: Not very much different from what she said, but what I have experienced is there are students who are willing to learn, there are those who are not willing to learn. But the main challenge is

like she said registered nurse and student ratio and equipments. You want to teach the student a certain procedure but the equipment is not here. So that becomes a challenge.

R: Ok, now from your own perspective, how does this lack of equipment hamper clinical education?

P2: The student will not know how to the procedure is done. So, let me say, putting up a nasogastric tube and then you don't have sterile gloves or KY jelly, so, you have to teach the student using non-sterile gloves which is not a correct way. So, they will end up going to do it the wrong way instead of the right way just because the correct equipments were not available.

R: Ok, thank you very much. Any other contribution, how do you experience the clinical education of student nurses when they are on clinical attachments?

P1: When it comes to infrastructure itself, the way our labour rooms, our procedure rooms are setted, it's not in a, it's that old building we're having. So, at our standard we are supposed to have special rooms for let's say specific rooms for babies, for sick babies, for prem unit, but in our setting it's all in one. So, the way we are going to teach our students here due to the infrastructure or the settings is also not proper because the space is small and all patients or babies are just in one room. It's also not going to give us good implementation of proper procedures. And when it comes also to the rooms were we put our, what we call postnatal, the rooms are few and patients are many, so we end up having our patients being placed on the floor and in corridors. When you want to do procedures, this may also hinder the privacy of our patients and when you are teaching students, they might think her educator is not too providing privacy as the books are saying or as its supposed too, but then it's because of the infrastructure set up.

R: Ok, and now whose responsibility is it to make sure that the infrastructure is conducive for learning? According to your own perspective, what do you think?

P1: I think it's the management because this hospital is a training institute and we always raise our complains, they say they will take it up since we are still waiting for the new building which are in the process.

R: Ok, thank you very much. Any other contribution?

P4: Well, according to my experience, since we are having some students from different institutions like the students that we use to receive here we do have students from Welwitchia university, University of Namibia and those one from the National Health Training Centres, like when they are coming there are some small procedures that their tutors use to demonstrate to them, and also when we are going to demonstrate something to them here, it will be like a short of contraindication, they will be like, no, our lecturer said this and this therefore we also try by all means to correct them, so that all of us we should sing the same song since nursing is universal.

R: Ok, thank you very much. So, what you are saying is that, what is being taught there and what is being practiced here is not the same? Is that what you are saying, because you are saying they are not?

P4: Not really to say that, but they use to, we use to have some contradictions, based on what they are being taught and also on what we are practicing here, like what, when we are showing them procedures.

R: And what could be the cause of this contradictions, what is it that is causing this contradiction, because you have just mentioned that nursing is universal?

P4: Yes, I think maybe is just because they are from different institutions. The way they are being taught there it's not the same that they are being taught at the other institution. Like the students from UNAM and Welwitchia, there are some procedures that they are being demonstrated to, let me say example abdominal palpation, jaa, sometimes they use to say no, if you are doing the engagement you use your fingers like you do five of them they are being placed at the abdomen meaning its five over five. Some they are saying, we do measure from inside the engagement like that.

R: Now, what do you think what could be done then to, in the future to avoid this confusion and these contradictions among students?

P4: I think that one is just the way of us teaching students that now that we should always try to do the same thing. Then we should always tell our students that no what they're being taught here is also the correct procedure.

R: Now, do you have anything that is guiding you perhaps on how to teach the students? Do you have any guide or document that is guiding you on how to provide this teaching to the students?

P4: According to myself, when I am teaching students, I use to go to my old notes that I have taken from school, I'm still having them, then also my books. I use to do some reviews then I will come and teach them.

R: Ok, thank you very much. is there still any other contribution on that?

P8: With the students' register books, I don't know if I will say maybe, let me say they have to be updated just for them to go hand in hand with what people are using currently, because sometimes, ok, the student will book you like the student want to you to evaluate, then you tell the student to prepare the procedure but then at time you find the student not collecting all the necessary items that she need to carry out that procedure. Let me give an example, like of maybe doing hemoglobin test. Like in their book, the students supposed to have that old-fashioned hemoglobin where you take blood, you put on the glass then you haemolyze with the hemolytic stick, but then in our ward or in our set up, we don't use those one anymore, we just use this haemoglobin test meter where you take a blood and put it on the stick, then automatically it will give the number. So, I think it will be an advantage to them if maybe they're register could be updated or to what is currently used at the facilities.

R: Ok, what you are suggesting is that their training registers to be updated so that it can go hand in hand with what is currently in use in practice?

P8: Yes.

R: Ok. Thank you very much. How do you describe the students' attitudes towards learning and towards registered nurses?

P7: They're really cooperative as it was stated before and then some of them, they are really trying to work hard. Or either on the procedures or just work hard for their own books, their logbooks.

R: Thank you. Yes

P6: It depend from student to student. Some have good attitudes towards nurses and some they don't. Sometime you delegate a student to a certain task, but that student will refuse to do that task. But some if you delegate, she or he will do that task.

R: Now, what do you think what could be the reason behind a student refusing a task that shes been delegated to do?

P6: I think that is part of the theory that ethics is needed and they should do what their fellow nurses told them to do. Maybe, at school they were not taught about ethics or I don't know. Maybe something need to be done there.

R: Ok, yes, any other contribution? How do you describe the students' attitudes towards their own learning and towards registered nurses?

P4: Some students really show interest, like a student can book for a procedure or can request a nurse to teach. Some just wait for others to do it, then for them to benefit from others or they are working behind others back, sometimes its us nurses who say aaa, but when you are doing that, are you done or have you done that in your practical book or do you know how to do for example urine test, then that time is now when the student will say ooooo no sister may you please show me, but some like really asking questions like where they don't understand, they ask like but sister how do we do this? Sister may you please show us how to do this. Some really show interest, but some aaaaa, they don't.

R: Thank you very much.

P1: What I have experience the students' attitudes towards their practical registers, some they don't even know what is in their books. So, maybe it's better for the lecturers at school to go through their books time by time. Some don't even know what kind of procedures, because one can, you can even demonstrate a certain procedure to them, let say maybe you happen to have a certain case in your ward, one can have a procedure in his or her book but that procedure might come once in a time or in a while in a ward, but they don't, if they don't know what is that procedure is in their book, there is no way they can track that we need to be demonstrated more on these procedures. Because some procedures are rare, so if they don't know what is really in their books, they can also miss some cases.

R: Ok, so what you are suggesting is that the lecturers to explain from time to time as to what are the students expected to do when they are in a certain department?

P1: Yes, and just to go through all the procedures in their books for them to be aware, just to know that, these are type of procedures which are in our books.

R: Ok, thank you very much.

P3: For me what I have experienced, so students they're very interesting in what they want to achieve even though, they will never be the same. So, we have to take it as it is and we have to follow them and guide them also. What I think is that maybe for the ethics to be taught at the beginning before they come, because they don't really, I think for the ethics they're not that good since they don't, you can say they are behaving fine, but they don't know what should be done and what should not be done. Let me say like they are too open maybe due to the development that now a days we are open. They can, they are talking loud, they are so free, they can even say some of the words which are limited. I think they are too open; they need to be taught the ethics.

R: Ok, are we saying that they are not being taught ethics?

P3: I think maybe since the ethics is taught at the last year, I think it comes in the fourth year, second year like that.

R: Ok

P2: And they, as it was said by the sister, they don't know their books. For example, they have the competence, a person is saying the competence is not a procedure, how are you going to do the procedure of hemoglobin if you are saying, you can just take you hemoglobin that time just like pricking and she give the readings without preparing a trolley and you are saying; that's why we use to tell them like, everything you are doing is a procedure, you have to do it with the trolley as you are going to show your tutor or your lecturer. They want just to, like at the admission, to prick at that moment and say I am competent at doing this. Yes, you are competent maybe, but you were having just a hemoglucotest, the strips, but you don't have everything which is supposed to be on the trolley.

R: Are we saying that we students are doing some procedures at times they don't have trolleys, they don't prepare on a trolley?

P2: Jaa, they only assume that whenever a trolley is needed only when they are with the lecturer.

R: Ok, thank you very much. Now, how do you describe the students' performance in clinical activities? How do they perform their clinical activities in the departments?

P3: Jaa, there are those that they can do better, like the full wash, the bed making those I think maybe they are easier to them and there are those maybe for example the IV. They are very scared of put up the IV line, they cannot even try. Some are saying no, we are restricted to do that and some are saying no I'm not yet confident, but they don't want to give a try. Maybe, I think they should just given that opportunity to try and have a competence in their books also. They are just saying, for them is just to observe and witness. They just want to witness but they don't want to practice it. Up to the second year you don't know how to put up an IV line? It will be so difficult for you to cope.

R: Ok, any other contribution

P4: They perform well depending on their attitudes towards the staff and towards also and depending also the work in that unit. If the work is too much, then their performance will also be low. Let me say, if they are working in a ward where there is a lot of patients to be transported to theatre, so like pushing patients to theatre every now and then, so that don't get to do other things,

then their performance will also be less, because they won't be interested anymore since there is only to push patients to theatre and bring them back. Just the same work routinely, so it also depends on what's going on in the unit.

R: Ok, what you are saying is that sometimes if a unit is so maybe busy and full and then at times students are being used to transport patients?

P4: Yes, and they will also disappear. They will also get the chance to disappear. The work overload is just too much, then you will see some disappearing. Jaa there performance becomes less since it's just a routine work, they don't get to do other things, other procedures that are in their books. So, the performance becomes less.

R: Ok, now apart from delegating them perhaps to transport patients to theatre and so on and so on, do you also get the opportunity to delegate them to do some other activities that will sort of motivate them to be interested?

P1: Yes, we delegate them in different tasks per day. Let say, if today she was at prep, tomorrow she will be maybe at labour room or maybe he will join the administrative activities such as checking the emergency trolley, ordering the drugs and the doing of off-duty. So, once we rotate them, they get more interested.

R: Ok, thank you very much. Now, how is the students' interaction between them and registered nurses?

P1: The interaction is good because they always follow registered nurses during their duties. So, whatever procedures they're going to carry in the wards, they're always after us. Most of them will always asking questions, want to try before we do so that we can correct them where they are wrong.

R: Thank you.

P4: The interaction is good since we can also treat them like children. They have to follow you , sometime you can see that a person who use to follow you every day is the same person who is following you today and tomorrow. That's why you can also delegate her somewhere else so that others can get that opportunity.

R: Ok, thank you.

P7: The interaction can be good but sometimes they take advantage of registered nurses also. Like maybe, if you were working with someone yesterday and you have been showing her how to do things and correcting her the student might get too close to you then the next day the student will want again to work with you for example if you are again in the same ward and at the end of the day the student will come with the book and the student may beg for some signature or things which the student did not perform.

R: Ok, and how do you handle that, if a student is coming begging for signatures that she did not work for?

P7: No, you have just to tell the student that no, I understand you want signature but then I could not sign for something which you did not do or which you never done or which I am sure you

don’t know how to do it because at the end of the day is like I’m taking a risk because when you are going to graduate and allocated for example to come work at this ward and you don’t know how to perform its going to be a risk to the patients. You have just to explain and make that student understand then the student will agree, ok sister you are right.

R: Ok

P2: The interaction between student nurses and registered nurses is good but it also depend to nurses behavior. If you are a good person or maybe you like teaching students, they will always follow you to book procedures. Sometimes you find yourself and students, but you are not the only registered nurse in that department.

R: Ok, and how do you cope?

P2: No, you just tell them that they should also book the other nurses since it is part of our scope of practice to teach the students.

R: Ok, thank you very much. What are the challenges that you experience during clinical education?

P3: Challenge could be, is like the number of students now. Since students they are a lot, you can be having like teaching more than like ten students that you are teaching, then it will not be easy for you because if you teach them a certain procedure, then that will make you obvious to do a recap again just to test them if the really understand the procedure or not. And also equipments as we have said, we don’t have enough equipments, you want to do procedures, let me say, how to print CTG printing and we don’t have CTG papers in stock, then it will also hinder. The student will not know, like how is the machine being operated.

R: Thank you very much.

P2: To what I experienced, we don’t use to get enough time to teach students because of the workload, work is too much. Like you want to teach, you have that interest of teaching them but no time. And second there is no, students themselves they don’t support each other. When someone know, she or he will be selfish to tell or to teach other students. Let me say there is one in first year and the one in second year or third year or fourth year, this fourth year student will not like to teach the one in first year since they have been exposed to that cases or like that. And number three, there are some of the things that are not correlating with theory and practice, its totally different. Like different institutions, what taught at UNAM is not the same like what is taught at Welwitchia. Some will say, you can have a second year from UNAM and a second year from Welwitchia and this Welwitchia student will say no we are not allowed to do that, but the second year at UNAM is doing that or you were taught that in second year.

R: Ok, so, what you are saying is that the different training institutions they are not teaching the same?

P2: (Nodding her head).

R: You have just mentioned about lack of time, that the work is too much and you have got little time. Now from your own point of view, how does this lack of time affect the teaching that you are offering to the students.

P: It really affect, because students will not know anything. Imagine you want to do something but you want to do it with time and you have to do like short-cuts or maybe because of lack of resources. So, you will just tell them you were supposed to do this, but because of time you just have to do it in hurry and got to get time to teach them.

R: Ok, now, the shortcuts that you have just mentioned, how do they influence the students' learning?

P8: It will affect their learning because they will not know what was supposed to be done.

R: Ok,

P3: Let me say, I am the only one in the department, and I have to prepare the patient for Caesar, so I will prepare that patient alone at the same time, so I was supposed to take a trolley, with a cannula, with a catheter with everything, like procedure by procedure, but I just have to do my procedure at the same time, catheter on my trolley, IVI on the trolley everything but you are not supposed to be like that. You are supposed to do one by one, but because of time you have to do it in hurry.

R: Ok, thank you very much. Is there still any other contribution on that?

P1: Yes, as it was said before lack of registered nurses, shortage of registered nurses also contributes to the challenge that we meet here when it comes to teaching students. You find yourself teaching a lot of students because on duty, you might be just two registered nurses on duty and you have a lot of students. It also contribute because sometimes it become boring teaching all the time or teaching continuously.

R: Ok, now when you are teaching continuously and all time, when do you provide patient care?

P1: We do provide, most of the time we are attending to patients but when you are done with your task or its your lunch time or you get time to sit with your students, you continue teaching students.

R: Ok. Now you have mentioned it becomes boring. Is it now from you as a registered nurse to teach and teach that makes you to be bored or can you just elaborate a bit?

P1: Yes, its me as a registered nurse, it becomes boring because you are teaching many times let me say and sharing responsibilities will be making work easier or teaching easier. Its even interested to teach, let me say one topic per day, but if you are teaching taking part from different topics it becomes boring and you will not even have to be concentrating. Jaa, shortage of staff also is also a challenge.

R: Ok, thank you very much. Any suggestion on how clinical education can be improved?

P2: My suggestion is that the instructors or facilitators should follow their students at clinical, at the hospital, they should follow their students at least to do some procedures or to show them some procedures before they come to practice or maybe on the first day and second day at least like at

the training center, they tutor use to be here and teach students on some procedures. At least it should be applied to other institutions.

R: Ok. What you are saying is that some other institutions their clinical instructors are not following up students?

P2: They only follow them if their students are coming to do procedures. Just for students to do procedures, but not to teach them.

R: Ok, thank you. Any other contribution on how clinical education can be improved?

P4: I think institutions, like the lecturers who are responsible for certain modules that have practical registers at least they should orientate registered nurses to their register books or to their practical books which students use to have because there are somethings in those register books that students want you to teach them but then you just don't know how to go about it. At least if they could be oriented it will be better for the registered nurses to teach those students correct things.

R: Ok, thank you

P6: To update the students' registers according to what is new and to remove the outdated information in their books.

R: Ok, thank you.

P7: For me maybe just to encourage registered nurses. So, some of them they just know that its their responsibility to teach students is in their scope of practice but they are not motivated to teach students now and then. So, maybe to be encouraged now and then that please registered nurse use your limited time to teach and opportunity to teach those students.

R: Now, from your own perspective, who should motivate them?

P7: Even lecturers, they can gather us and tell us that its very important for use to act and get those people together. Some they feel that yes, I'm a registered nurse, but I don't care whether I am there or not.

R: Ok, what do you think what could be the contributing factors to for them to be have low interest?

P7: Maybe it depends also to our let me say, our intelligent or like to the, depends how you like to talk or you don't like to teach. Some they know how to do things, but to give to others, they don't know. The person can do it in practice, you can observe, but just to give like to tell and educate, you cannot get anything, like that.

R: Ok, thank you.

P3: Perhaps maybe we can get a certain amount just to motivate us cause like the Doctors I heard they are getting something from the government or from UNAM, just to teach the students. That's why there is a difference between how we teach students and how the Doctors teach their medical students. It seems, they are getting something, so us, we should also get something so that we can be interested in teaching them.

R: Ok, a certain amount, you have said you should be given a certain amount. A certain amount of what?

P3: Money, just like an allowance or something like that, to motivate us to teach them, because like the way Doctors are teaching their medical interns, is so interesting. Its like they, it's a must since they are getting something. To them they are interested in teaching students, but us,we should also get something.

R: So, what you are saying that in the absence of this allowance, you also become demotivated because you don't get anything?

P3: (Laughing), Not really, but to motivate those who don't like teaching because there are those who don't like teaching, there are those who like teaching.

R: Ok, thank you.

P1: Increase more practical hours for students being allocated at clinical settings. Increase their time of being here. Let say usually they use to knock off at four, if possible around five.

R: Ok, why should it be increased?

P1: We need time with them. You know, they're always rushing to the bus and without completing their procedures or what we were doing.

R: Ok, thank you

P8: I'm saying maybe the lecturers with subjects with practicals at least to be part of in-service training or maybe to do some in-service training to registered nurses.

R: Ok, and this in-service training will specifically focus on what?

P8: It will depend whether is surgery, maternity, but in maternity we use to do it

R: Ok, now should they present certain procedures or should they present to you the teaching methodologies?

P8: It depends, it can be a procedure, like, it depends.

R: Ok, thank you.

P5: It was stated already by my colleagues, that they really need time more time to practice. Sometimes they come here, like they witness, they were told that we no we only need like a first year students when you are in first year. They were told that no we only told that we need to witness or something like that, but then if maybe they witness like two two three times, then they can start doing it.

R: Ok, thank you very much. Is there still maybe any other burning issue that you would like to say before I conclude?

R: Ok, in the absence of anything, let me take this opportunity to thank you once more. I would really like to appreciate your time, your energy, I know you were busy with nursing activities. For some of you, I even went to such an extent to go to your departments and call you, but you really

have agreed to be here. Thank you very much once more. The overall aim of this study is for us to improve on the clinical education that we are providing to our student nurses, so that it can be beneficial to both the student nurses as well as the lecturers and registered nurses. Once again, thank you very much, I really appreciate you, your time as well as your energy. Thank you

Ps: Thank you very much.

Annexure N

Transcript of Lecturer

TRANSCRIBED INDIVIDUAL INTERVIEW WITH LECTURER 3

VENUE: KITCHEN IN THE SCIENCE BLOCK OF UNAM, OSHAKATI CAMPUS

DATE: 23 JULY 2019

R: Good morning mem
P: Morning mem
R: How are you?
P: I am fine and you?
R: I am fine, thank you. My name is Ndapunikwa Uukule, I am a student at the University of Namibia currently pursuing a PhD in Nursing Science. I would like to use this opportunity to thank you very much for having availed yourself to come and attend this interview. The aim of this study is to improve clinical education that we are providing to student nurses during clinical attachment. I would like to inform you that our discussion is going to take about 30-45 minutes. Confidentiality of the information that you are going to provide will be kept, because the information will not be shared with any other unauthorized persons. Anonymity will also be maintained; because you will not be required to provide your names and the information that you are going to give will not be linked to you. Our interview is going to be audio-recorded and the reason of the audio-recording is just to make sure that I'm capturing all the information that you are providing me with. Under no circumstances are you going to be forced to respond to a question that you think that you don't want to respond to it. And if a question has been asked and it's not clear to you, then you are welcome to ask for either clarification or repetition. And I am also kindly requesting you that if you have got a cellphone, then you should put it on silence or you switch it off so that it's not going to distract us during the discussion. Thank you very much. Before we start. Do you perhaps have got any question?

P: No thank you is only that I have flu maybe the discussions can be disturbed because of my coughing and sneezing.

R: Ok, I am wishing you to get well soon.

P: Thank you.

R: Yes, thank you. Can you please tell me about your experiences on clinical education of student nurses during clinical attachment? What are your experiences on the clinical education that you as a lecturer is providing to student nurses during their clinical attachments?

P: Thank you very much. Maybe to start with, is that I have almost 31years experience of clinical education for students while they are in practice, though is not really 31years because sometimes students are in classes and sometimes, they are in practice. What I have experience maybe a few times back, is not the same as I am experiencing now, these years. The reason behind is that maybe 20 years back, the total number of students were not that much. We were having, if many maybe,

50 or 60 if they are many, comparing to know that you may have hundred and something students that you are taking care of. And when you are comparing these numbers is much easier when you are teaching students in less number or minimum number of 50. The teaching education starts from the classes, you have to start in class or in simulation and if you have the number of 40, 50, that number will fit in the simulation and then you will be able to show them properly what you want them to see or to learn. But when it comes to a big number, either you divide the group in three to four groups if you want them to learn properly and sometimes its time consuming, the time may not allow you to divide the group because you have limited time because is not only you from morning to afternoon. So, you are many who may use the simulation and some lecturers who are having different modules. And then when it come to the learning at the clinical field or attachment, again is more or less the same that when you have a small number of students, you are able to show them in maybe a small corner or a small space at the hospital or at the clinic and is also comfortable to the client if you don't have a big number of students around that specific patient or client. So, is more comfortable for the client also if you are not that many. And then, consequently if you have many students, then you may not really reach or achieve the goal you want to reach that specific day and also some students may not be exposed because of that, because of the big number. The other thing which may hinder the education at the health facilities is lack of resources. You may want to show students a procedure for example, in a proper way, but because of lack of resources, you may find that some of the equipments or some of the materials are not available, then you may be forced to show the thing which is not proper because of that. So, it will be an oral thing rather than a practical thing, if you don't have the necessary equipments or materials. And then again, regarding the education at health facilities, previously, I am saying previously, registered nurses were having that, those functions of them that they have the functions of teaching students apart from administration and other things, but if one is referring to nowadays, as if registered nurses are putting their role over to lecturers. And also, they are talking about shortage of staff that may hinder them to teach the students, because we need to have collaboration with them because they are the one who are with students maybe 24 hours if I may, if I can mention that.

R: Ok, thank you very much. I would like to make some follow up questions on what you have just said. You have talked about the high number of students that we are currently having. Now, how does this high number of students affect the students' clinical learning?

P: Ok, thank you very much. The high number of students is affecting negatively their clinical learning as I have mentioned also previously that when it comes to the exposure, you may not really, is not good to have maybe 20 students around one client for example. Like in, I can give an example of maternity section or units, where some procedures are sensitive and you cannot really have a lot of students around that person, for the student to be exposed to that specific procedure and at the end, it will affect their learning opportunities and experiences.

R: Thank you very much. Another question is that you have also mentioned about the lack of resources in the health facilities, that sometimes you don't have enough resources and this actually force you to rather provide oral teaching instead of practical teaching. Now, how does that affect the students' clinical skills?

P: Thank you. Maybe I have to start at the institution itself, at the school. If you have a lot of students around you and when it comes to the simulation, I am more to maternity, that maybe you went to the hospital to get a delivery pack, for example, the hospital; also, cannot provide you with more than two for example delivery packs. And you know, is good that if you have a delivery pack, then you have to have it sterile so that students can learn that a delivery pack when it is intact, is like this. And if you don't have enough packs to show to the students in the simulation so that they can know how you are doing it practically, yes you may find that student will not learn much when it comes to the skills.

R: Ok, thank you very much. You have also mentioned that the registered nurses in the units or in the departments they have got a teaching role towards students, but many a times, they are shifting their role to lecturers to do it. Now, what do you think what could be the reasons for them to shift their teaching function to lecturers?

P: Now, I am now assuming, but I think shifting the role to the lecturers sometimes is the understanding. Because the person may understand that if the lecturer is around, or can come around the health facility, then there is no use for her to teach these students because the lecturer is around. That's having a reason of the misunderstanding which may happen or which may cause that. The other thing is they are having the reasons of shortage, that they are very much occupied and overloaded with their work and cannot have time for students to teach students, though we are very much happy because some of them are still having their role and is doing their role as a teaching role for all our students. Not all of them are having that misunderstanding or having a reason of not having time because of overloading of the duties they have.

R: Thank you very much. Now, what do you think what can be done to resolve this misunderstanding between the registered nurses teaching function that they are shifting to lecturers. What can be done in order to resolve this misunderstanding?

P: Jaa, first of all, I think there is this education forum meetings which are being done and some of the issues should be brought in this meetings so that, this is sort of reminders or in-service training for the registered nurses and also for the lecturers because one is not having knowledge in all aspects, but having these meetings, I think will assist for registered nurses to remind themselves that ooh still we have this duty or this role and we cannot maybe use overloading as a reason for not teaching students. The other thing is that we have these programmes in health facilities, the in-service training, so maybe different topics can be presented and I think is important for lecturers also to be involved in these in-service trainings, which I don't know whether is currently happening that lecturers are having chances to go and present so that at least this collaboration can also be done when it comes to in-service training. The other thing is that I think there is a need for guidelines. When you have guidelines then you will see that in the guidelines, specific functions can be indicated that the lecturers is having this and the registered nurse is having these functions to do when it comes to the teaching of the students. And maybe if people are referring to the guidelines which are there, then at least it will also be a good reminder for them that, but by the way I have the responsibility of teaching ABCD for students.

R: Thank you very much. Now, how do you describe the student's commitment towards practical learning?

P: Ok, thank you for that question. I don't know maybe because I am always having, comparing maybe some years back and current years. Jaa, I don't know, the commitment of some years back students when it comes to learning differ from the current students' commitments. Why I am saying that is that previously you will find that students are eager to learn, they are eager to learn when in class and when in practice, they want to know. They are also involved in asking questions either at the class or in clinical set up or settings. But when it comes to nowadays students, when it comes to commitment, they are not all of them, but you will find that some of them are not committed when it comes to their practice. Why I am saying that is that when they are allocated at different units, you will find that some will be absent from the practice and with no relevant reasons and doing that, they will not be exposed and they will not have the necessary knowledge and skills in that specific unit where students are allocated. And the other thing is that students are having their clinical practical books where they need to be exposed and then they need to give feedback to either the registered nurse or to the lecturer, but you will find that most of or some of the students will just run away from being evaluated or being supervised and doing that they will not really be exposed and they will not gain necessary skills when it comes to practice. So, I am saying commitment, I cannot say they are 100% not committed because there are those who are committed.

R: Thank you very much. Now, for those ones that are not committed, what do you think what could be the reasons for this lack of commitment?

P: Thank you for that question. Maybe number one, what I am thinking of lack of commitment I am thinking of back to the admission of these specific students. So, if the students is admitted without interest in the course itself and only come maybe to the specific course because she don't or he don't want to be at home, then you will find that, this student is not really having an interest in what she's studying or his studying. You will find that commitment may not be there and because the interest is not there. The other thing is peer influence. Some students when they come to the institution, they are good, but because of their involvement with other peers, they may find that there is this other group who are not committed, who are doing some other things, then if that student happen to join that group, you will find that the person will deviate from the normal she or he was brought up at home and the interest may get lost so that she can be commit herself or himself to the course.

R: Thank you very much. Now, what are the challenges that you experience during clinical education of student nurses when they are on clinical attachments?

P: Thank you. The challenges is that maybe I have to start with myself as a lecturer. So, as a lecturer having some other responsibilities, you may fail to follow up these students properly when they are in clinical attachment. Seeing that the lecturer is the one with many responsibilities at the teaching institution, and also the responsibility of following up students at the health facilities. So, sometimes that can be a challenge that you are not following them up regularly as you have to. The other challenge is, I have already mentioned that the big number of students who are allocated at the health facilities. That is a challenge because just imagine at the unit, maybe ten students are allocated at that unit and you need to do follow up and you need to teach them. As I have already mentioned that having a lot of students around the client is not good, is also a challenge. And also, the space, you will find that in the unit, some units are not having specific corners for teaching

students where you can sit or where you can stand with your students and teach them something apart from going direct to the client or to the patient. Because sometimes you will find some well off health facilities, they are having these teaching rooms where we can teach or after a procedure you can go to that room and discuss rather than discussing this around the patient. So, sometimes that is also a challenge. If spaces are not considered, so that students can be included when the se up is being done of these health facilities. And then, another challenge is, I don't know, maybe is the economic challenge because you will find that some students who may absent themselves from practice, they may tell you that no, I didn't have money for a taxi etc. So, and you cannot, sometimes when you are looking at the situation really itself you may see that aah, maybe the student is really not having money for transport, but I know that, that is not an excuse, but sometimes it happens and is a challenge. And you are at the health facility waiting for that student and yet that student is not coming out, maybe after following that up, you heard that because of ABCD, I couldn't come and you were waiting there, wasting also your time waiting for this student who is not coming.

R: Thank you very much. Now, from your own perspective, what do you think, what can be done to improve clinical education?

P: Ok, thank you. My own perspective is that I will start with the admission of students. I think we need to reduce the number of admissions to go for quality rather than for quantity. Because to me as smaller group can be managed properly and you can control that smaller group comparing to a bigger group. That is number one what we can do maybe, jaa, my own opinion. Number two is that the number of clinical instructors I think needs also to be increased because of the big number of students. The more we have more clinical instructors who can assist with the lecturer, I think it may help and also likely now we have also preceptors who are assisting when it comes to the clinical education and clinical teaching. I think maybe doing that is fine. And also having guidelines, students will also be told or guidelines for students will indicate that what are their responsibilities, though it is done specific with the modules, I think they need again more clarity on this, how to go about the practice and how to fulfill their duties as students.

R: Ok, thank you very much. I think we have come to the end of our interview, unless if you have got something else that you perhaps would like to share with me.

P: No, thank you mem.

R: Ok, on this note, I would like to thank you very much once more for having left you busy office to come and attend this interview. I do really appreciate your time, your energy and your valuable contribution to this study. Thank you very much and I wish you all the best

P: Thank you mem.

R: Thank you

Annexure O

Cronbach' Alpha Test Results

Registered nurses' questionnaire

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	172	100.0
	Excluded[a]	0	.0
	Total	172	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.704	14

Student nurse's questionnaire

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	108	100.0
	Excluded[a]	0	.0
	Total	108	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.809	12