THE QUALITY OF THE CLINICAL LEARNING ENVIRONMENT FOR NURSING STUDENTS IN A FEDERAL HEALTH INSTITUTION IN NIGERIA.

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DECLARATION

I, Adehanloye, Emily Kofoworola student no-2248280 declare that this Dissertation is my own, unaided work. It is being submitted for the Degree of Master of Science (Nursing) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University

(Signature of candidate)

24th Day of June 2021

DEDICATION

This project is dedicated to God who spares my life till now, my proliferation and procreation families.

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ABSTRACT

Nursing students' clinical learning experience is an important element in ensuring the continuation of a quality nursing profession. There is need for a safe and conducive clinical learning environment as well as up to date facilities for nursing students and clinical facilitators in order to produce effective and efficient learning. This is in addition to the need for effective and caring clinical facilitators. A quality clinical learning environment provides the context for development of the nursing students' affective, cognitive and psychomotor skills and plays a very important role in integrating knowledge, skills and attitudes which is essential for the acquisition of competencies for nursing students.

This study investigated the quality of the Clinical Learning Environment for nursing students in a Federal Health Institution in Nigeria. The purpose of the study was to explore the quality of the clinical learning environment and the available facilities necessary to deliver efficient teaching for nursing students.

A sequential mixed method (QUANqual) approach was adopted. The first and second phase of the study was quantitative in nature which included both a quality audit of eight (80) patients' records, stocks and equipment of four (4) wards and a survey of eighty-four (84) nursing students, followed by a smaller qualitative phase which consisted of semi-structured interviews with ten (10) clinical facilitators. The findings of all the phases were then integrated guided by the clinical training model of South Africa to guide and answer the research question ''what is the quality of the clinical learning environment for student nurses in a federal health institution in Nigeria''.

The data were analysed in phases using quantitative analysis for phases1 and part of phase 2, and latent content analysis for the latter part of phase 2 (comments made as part of the nursing students survey) and thematic analysis for phase 3 (semi-structured interviews with clinical facilitators). This revealed that there is inadequate equipment and supplies and simulation space for demonstration and practice, as well as a shortage of human and material resources for teaching.

In conclusion, the findings show deficits in what is needed to achieve a quality learning environment for the nursing students and this might have negative effect on their ability to achieve clinical competence.

KEY WORDS: Quality, Clinical learning environment, Nursing students and Health Care Institution.

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LIST OF ABBREVIATIONS

1. ACOGs: American College of Obstetricians and Gynaecologists

2. CLE: Clinical Learning Environment

3. CLES+T: Clinical Learning Environment and Nurse Teacher scale tool

4. DDA: Dangerous Drug Act

5. NEI: Nursing Education Institution

6. NMCN: Nursing and Midwifery Council of Nigeria

7. OSCE: Objective Structured Clinical Examination

8. PAL: Peer-Assisted Learning

9. PPE: Personal Protective Equipment

10. SANC: South African Nursing Council

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Chapter 1 - INTRODUCTION

1.1 Introduction

The nursing profession is based on theoretical and practical aspects. The theoretical aspect is the art and science of acquiring knowledge, which deal with various methods of caring, through lectures received and other didactic teaching and learning, while the clinical environment is where the skills and knowledge of nursing students are applied to patients care (Flott and Linden 2016). A quality clinical learning environment that provides the context for practically integrating knowledge, skills and attitudes is essential for acquisition of competencies for Nursing students (Meyer et al. 2009).

The quality of nursing education in the clinical area, according to the model for clinical nursing education and training is dependent on four components, namely support from the service setting, support from the nursing education institution, the role-taking of students in clinical practice and support from the statutory body responsible for approving the clinical facilities where student nurses are placed (Nes 2012).

Nursing students, clinical facilitators and nurse educators at a nursing education institution (NEI) are important stakeholders in the establishment of a conducive learning environment. These stakeholders have expressed dissatisfaction with the quality of the learning environment at a federal health institution where the study took place. One of the over-riding problems appears to be the lack of stock, facilities and equipment available for quality nursing care, and therefore for quality learning.

Student nurses sometimes feel that they are a burden to qualified staff and are also concerned that they do not receive sufficient supervision. This leads to a poor relationship with the clinical staff and a feeling of rejection. It is essential for qualified nurses to provide a conducive learning environment to ensure quality learning for the next generation of nurses. This includes providing innovative teaching and encouraging students to ask questions and be involved with, and even create their own learning. However, this cannot be done if the clinical learning environment does not encourage mutual respect and a mutual desire for quality learning (Jamshidi et al. 2016).

The idea of learning on the job is embraced in the concept of apprenticeships where students can apply knowledge learned in a college to real life situations and be confronted with real life

problems to resolve, while under the supervision of clinical facilitators. (Ellis 2016). The apprenticeship model has been looked upon with some scepticism in recent years as it is believed to be contrary to the idea of professionalism, but a recent re-introduction of such a programme in the United States of America has caused some renewed debate (Barton 2019).

Whether the apprenticeship model is applied or not, a clinical learning environment in nursing education is mainly workplace-based and involves both learning and organizational factors. In research conducted on multilevel perspectives in clinical learning environments, it was observed that a clinical learning environment comprises many factors interwoven with each other: climate within the ward, organizational variables (for example, materials, equipment), student mentorship, quality of nursing care given to patients, the occupational well-being of nursing staff and managerial variables. These perspectives were observed to contribute immensely and effectively in guiding nursing students' clinical learning (Tomietto et al. 2014). The common goal these stakeholders share is the development of independent practitioners who will ensure public safety through documentation and consistent supervision (Melrose et al. 2015).

1.2 Statement of the Problem

A quality learning environment is essential for the acquisition of competencies for nursing students. The learning environment provides the context for integrating knowledge, skills and attitudes (Ehrenberg and Häggblom 2007). Nursing students and clinical facilitators are important stakeholders in the establishment of a conducive learning environment (Mannix, Wilkes, and Luck 2009). Both groups of stakeholders have expressed dissatisfaction with the quality of the learning environment at a federal health institution where the study took place. Until this study no attempt had been made to assess the quality of the clinical learning environment. This study aims to improve the quality of the learning environment and therefore to improve the quality of teaching and learning of the nursing students through and assessment of the quality of the clinical learning environment.

1.3 Research Question

What is the quality of the clinical learning environment in a selected Federal Health Institution in Nigeria?

1.4 Purpose of the Study

The purpose of this study is to explore the quality of the clinical learning environment and available facilities necessary for teaching nursing students in a federal health institution in Nigeria with a view, at a later stage, to improving the quality of the learning environment and therefore the quality of nursing education in the federal health institution under study.

1.5 Objectives of the Study

- To conduct an audit of the Records, Stock and Equipment available in the clinical learning environment in a federal health institution.
- To assess the quality of the clinical learning environment from the nursing students' perspective.
- To explore the perceptions of the clinical facilitators of the clinical learning environment.
- To conduct a situational analysis by integrating the findings of the audit and perceptions of the stakeholders.

1.6 Conceptual Framework

This study is guided by the Clinical Training model of the Republic of South Africa, which is shown in diagrammatic form below (Figure 1.1.) and described in relation to this study.

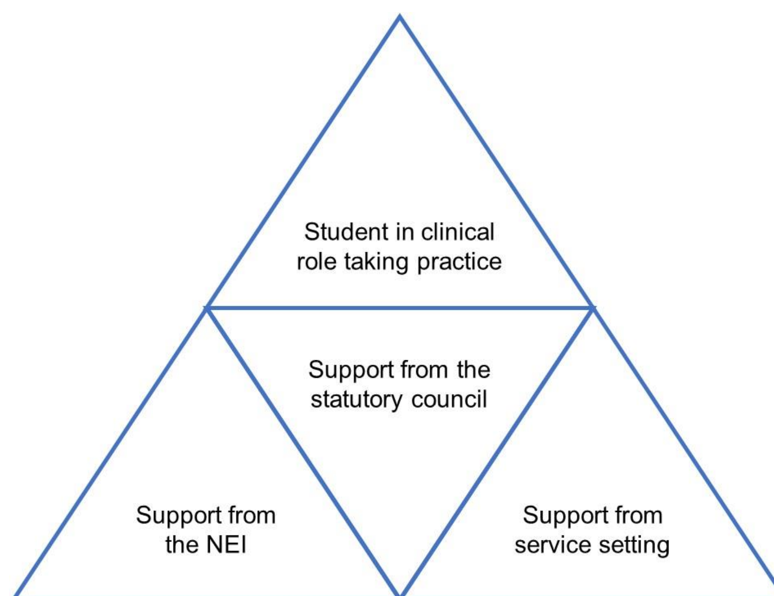

Figure 1.1: Components of the model for clinical nursing education and training (NES, 2012)

According to the model, there are four stakeholders, or role players, related to clinical education and training for nurses, viz the student, who, in this model, is at the top of the triangle as her/his future rests on the support of the other stakeholders, who are the statutory council, the nursing education institution where a nursing student is enrolled and the service setting where the student is placed to complete the clinical part of the training.

While the model was developed in South Africa, the stakeholders involved in clinical learning are the same in Nigeria as in South Africa viz. the statutory council, the nursing education institution and the clinical setting. All of whom support the fourth stakeholder, the student. When both countries' nursing programmes were commenced many years ago, they were based on the apprenticeship system and although this system as such is no longer used, the four main stakeholders have retained their positions in the model. The "power" of the clinical setting has however changed as the nursing education institutions took over the responsibility of selecting students and ensuring they meet the requirements of the programme. Each of these stakeholders is described below in the context of the study.

1.6.1 Student

A student nurse is a person who is following a formally recognized programme of study of basic and generalized nursing education in order to qualify as a nurse. The programme of study provides a broad and sound foundation in the behavioural, life and nursing sciences to prepare a student to care for sick and disabled people and to prevent illness (Schober and Affara 2009) (ICN, undated).

Student nurses are required to register with a statutory body and remain registered in a student capacity for the duration of their training. Their education includes both theoretical and clinical training and the integration of the two components takes place in a clinical setting under the guidance of mentors or preceptors.

The role of a student nurse is twofold. She/he is not only a learner but also, in the process of learning the profession, cares for patients in clinical settings. This latter aspect of the training is referred to as role-taking. The proportion of theoretical and clinical training varies from country

to country as does a student's status in a hospital. In some countries, a student nurse is an employee of the service and in others she is a supernumerary to the workforce.

In Nigeria, nursing students are learners of at least 18 years of age. These students are admitted to either schools/colleges of nursing or universities. The latter are either private or government universities. Nursing students spend three years at schools and colleges or five years at universities in order to gain a qualification. The former are usually sent for orientation in clinical practice six months after commencing their academic programme, while the latter only enter a clinical practice environment after their second year of training when they have been taught ethics and the basic theoretical parts of their training. They are usually placed in pairs during clinical postings to work with registered nurses during the different shifts, namely morning, afternoon and night shifts, with the intention of building confidence through direct supervision in various nursing procedures, which encourages them to work independently.

This arrangement is based on a supervision model of peer learning, where nursing students are mentored by several mentors, which is believed to be more satisfactory than traditional supervision where each student is dependent on a single mentor (Ekstedt, Lindblad, and Löfmark 2019a). The type of supervision where all members of staff are encouraged to teach students during various shifts assists students to interact freely with everyone and to ask questions without becoming bored in a particular shift, thereby learning more from varied experiences as ''experiences'' are seen to be a teaching method on its own.

1.6.2 Service setting

The service setting refers to the clinical learning environment where nursing students are placed during the practical aspect of their training in order to integrate theory and practice. The service setting is usually a health care institution that has been accredited by the statutory body for the training program. Support in the service setting is provided by registered nurses, who either work in the nursing unit where the student is placed, are employed by the nursing education institution for the purpose of providing support and education to the students in clinical areas. This latter type of support person is commonly known as a preceptor. A preceptor acts as a clinical support for student nurses during clinical placement and in doing so provides direct clinical instruction to the students (Dahlke et al. 2016). In addition, support is provided directly or indirectly by the academic staff of the nursing education institution, who may both teach and assess students in the clinical environment. A collective term of 'clinical facilitator' is often used

to describe any of these categories of registered nurses who provide support to students in clinical areas. Clinical facilitators support and guide students by assisting students to apply theory to practice, through assessment, evaluation, constructive feedback and by facilitating reflective practice, performance and experience (Vinales 2015).

A memorandum of understanding (MOU) is required between the nursing education institution and the service setting that sets out the requirements and responsibilities of both parties in terms of the support of student nurses. Typically, the service setting is required to provide a conducive learning environment for students, and the nursing education institution is required to prepare students for their placements and supervise their practice. MOUs, typically, also outline how communication takes place between the two stakeholders, how students' placements will be managed and what materials will be required for clinical teaching to take place.

In Nigeria, the service setting is a health institution accredited by the Nursing and Midwifery Council of Nigeria (NMCN) where clinical learning for nursing students takes place. The health institution is responsible for providing equipment/ instruments, human resources, physical structures, and materials such as personal protective equipment (PPE), and amenities such as water and electricity for the smooth running of healthcare in the facility in which the students receive their clinical experience. The health institution is expected to make adequate preparation to receive nursing students for clinical practice by sending out notices to all the affected areas and individuals responsible for the training of these students. This is in accordance with what was suggested: that service settings should give recognition to nursing students by welcoming, orientating and addressing them by name as this assists them to integrate well into the clinical environment and prevents them from avoiding taking up responsibilities towards patients. It may also assist in encouraging them to take up employment in the institution after qualification (Tremayne and Hunt 2019).

In the health institution, there is an organized continuous education unit headed by an experienced senior nurse who sees to the overall supervision of the clinical facilitators. His/her role is to promote an effective flow of information about training, renewal of practicing licenses, and monthly and annual seminars for all nurses in clinical areas. He/she makes provision for members of staff chosen as clinical facilitators to organize hour-long lectures at various units on a daily basis to teach and to observe the students performing various procedures under supervision. A study on collaboration between health care institutions and nursing schools showed that capable, proficient and committed nursing staff who serve as clinical facilitators and

are periodically updated on nursing practice are effective in guiding nursing students in a holistic manner. This included the provision of good communication skills, and teaching nursing students by providing timely and constructive feedback, which can affect learning positively and reduce the challenges faced by these students to a minimum (Ülker and Korkmaz 2017). The service setting also sources donations from individuals, groups and non-governmental organizations to assist in providing structures, equipment and materials to meet their needs to provide quality care and teaching.

1.6.3 Nursing education institution

The nursing education institution (NEI) is the education institution where student nurses obtain their education and training. This may be a university or college, both of which are required to be accredited as nursing education institutions with the statutory body. In order to acquire such accreditation, an NEI needs to meet the standards set by the statutory body. In the case of higher education institutions, dual accreditation is required – by both the nursing statutory body and the higher education statutory body. Nursing statutory bodies all over the world require nursing programmes to be accredited prior to commencement of a programme and is subject to compliance to both theoretical and clinical placement standards. NEIs are concerned with establishing that a programme provides the knowledge and skills students require to be licensed as a registered nurses on successful completion of training to practice safely and competently as new graduate nurses (Spector et al. 2018). In addition to the educational programme being accredited, most statutory bodies require the institution itself to meet set standards for the provision of quality education.

The support provided by an NEI is crucial and staff of an NEI are primarily responsible for supporting student nurses. This support takes the form of promoting teaching and learning, and building relationships between staff and students and between students, recognising and assisting at-risk students, providing academic support, and promoting a safe and conducive learning experience for students.

Nursing Education Institutions (NEIs) in Nigeria, having been accredited by both the professional and higher education statutory bodies, are permitted to conduct university examinations for students who meet the required entry points after the Joint Admission Matriculation Board examination. This enables NEIs to select the best students. The NMCN requirements gives an NEI the opportunity to admit a maximum of 100 students with a lecturer/

tutor: students' ratio of 1:10. An NEI is responsible for staffing and stipulates various periods of students' clinical postings and examinations to enable adequate preparation by the service setting. NEIs employ experienced nurses as clinical facilitators who teach the students using simulation prior to being sent to a service setting for their clinical experience.

NEIs provide competent lecturers/tutors with current professional practice licenses in collaboration with the service setting to assist students in building self-confidence, efficiency and effectiveness. They meet regularly with clinicians in the service setting for updates on new trends in nursing practice in order to bridge the theory-practice gap and interact with students to gauge how they are coping in the clinical setting. This system of an NEI collaborating with clinical staff in a service setting ensures students are theoretically and clinically prepared, and familiar with the environment before actually going for practical experience (Jamshidi et al. 2016).

An NEI is also responsible for registering nursing students with the statutory Council for final examinations, licensing purposes and to manage any disciplinary issues that may arise during clinical postings.

1.6.4 Statutory body

The statutory body in the context of this study refers to the nursing statutory body, which is responsible for regulation of the nursing profession and the protection of the public. As such, the statutory body sets minimum standards for the education and training of student nurses. It does this through the provision of regulations, licensing of nurses (and student nurses) and assuring the quality of nursing practice (Duma 2012).

In South Africa, the statutory body is known as the South African Nursing Council (SANC) and in Nigeria it is known as the Nursing and Midwifery Council of Nigeria (NMCN).

In addition to the above roles, or as part of executing those roles, both the SANC and the NMCN engage in the following activities: setting and controlling standards, reviewing the scope of practice of different categories of nurses, assessment and certification of nursing education institutions, directing the qualifying examinations before issuance of practice licences and managing the professional conduct system (Nes 2012).

While the statutory body is a regulatory body, it does provide support to nursing education in that it makes known the requirements for accreditation and keeps the nursing profession informed of changes and current issues.

1.6.5. Clinical Facilitator

Clinical facilitator in this study means a registered professional nurse who has experience in the clinical environment, and who are employed to work in the clinical environment providing patient care. As part of their work they assist in guiding and teaching nursing students, specifically related to assisting the students to gain competence in clinical procedures and competency in patient care.

1.7 Conclusion

Chapter One has discussed the topic, research question, problem statement, purpose of the study, objectives and conceptual framework extensively. The aim of the study is to provide suggestions to assist in building good relationships among the stakeholders to reduce theory-practice gaps, which result in a quality learning environment for nursing students thereby improving individualized patients'/clients' care in the selected health institution in Nigeria.

Chapter 2 - LITERATURE REVIEW

2.1 Introduction

In this chapter, literature from previous studies related to the nature of the clinical learning environment and purpose are discussed, along with a comparison of clinical learning environments in selected countries, nursing students' perception of their learning environment, challenges relating to the clinical environment, efforts to improve the quality of clinical learning and evaluation of the clinical learning environment of students.

Literature was accessed through the following data bases: Cinahl (in Ebsco host); Pubmed, Proquest and Science Direct. The search words used were clinical learning environment, nursing, quality, challenges and best practices. Articles published between 2015 and 2020 were included in the study.

2.2 Nature of the Clinical Learning Environment

A conducive clinical learning environment (CLE) enables nursing students to be able to practice what they have been taught theoretically in a real-life situation. The guidance and supervision received by nursing students from clinical facilitators and members of staff has been seen to be very important in shaping the attitudes and behaviour of these students and improves their learning abilities and skills through familiarization with the practical tools, thereby assisting in developing the necessary proficiency and understanding the reality of their roles as professionals. Educational learning activities in an emotionally safe environment are beneficial in stimulating the critical thinking of nursing students in order to develop clinical judgement and decision making, and so to recognize the consequences of their mistakes and expose them to various socio-cultural, emotional and biological needs of their patients (Dafogianni et al., 2015; Papastavrou et al., 2016a; Bowler, 2019).

Another feature of exposure to a conducive clinical environment is the teaching and reinforcement of 'nursing ethics' throughout the period of their training and that such exposure has a positive effect on the behaviour of nursing students (Song 2018). The confidence, communication skills, performance and knowledge of nursing students were observed to improve during exposure to a conducive clinical environment, which stands them in good stead for their future careers. (Eun Ko and Hye 2017; Briscoe et al., 2017). Access to and

maintenance and usage of equipment, instruments and other practical tools in the service setting enables students to improve patient care. While supervising and monitoring nursing students, stakeholders, including researchers, statutory bodies and educators, have been able to identify areas that need constant improvement and adjustment in training students while attending to their security needs (Dahlke et al., 2016; McSherry et al., 2015).

2.3 Purpose of the Clinical Learning Environment

The purpose of the clinical learning environment (CLE) was described in three stages viz: first, the retention stage, involves nursing students accessing training on various nursing procedures through audio-visual means, developed by their clinical facilitators. The second, participatory stage, involves discussions and demonstrations of these procedures through simulations. The third stage, which is the learning-by-doing stage, involves working directly under supervision of a clinical facilitator in order to become competent and independent. (Kokcharov Igor 2015). This means that nursing students need to put effort into retaining what they have been taught, and be eager to practice under supervision to familiarize themselves with the various practical tools in order to enjoy the best of their clinical postings. Rjwilmsi used Benjamin Bloom's (1956) three domains of learning from the *Taxonomy of educational objectives: The classification of educational goals*. Handbook I: Cognitive domain. (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). to explain how clinical learning could be implemented for nursing students. The cognitive domain is a means of learning the rules and regulations of the clinical setting, the psychomotor domain is a means of setting up for the various nursing procedures and how to perform them correctly, and the affective domain allows for the resolution of nursing students to love their chosen career and be ready to be empathic in the practice of their profession (Rjwilmsi 2020).

2.4 Comparison of Clinical Learning Environment in Selected Countries

The time devoted to clinical learning in various countries including Croatia, England, Ireland, Poland, Spain, and the United States of America ranges from 1000 hours (United States) to 2900 (Ireland) with the average number of hours being 2200 hours. However, as the total training time varies, the percentage of time spent in clinical placements varies between 33% (Spain) and 64% (Ireland) (Dobrowolska et al. 2015). Clinical placement of nursing students in these countries is determined nationally by the agreed principles of nursing regulatory bodies,

health ministries and nurses associations, whereas some countries like Iceland, Italy, Spain have their own locally developed standards at Higher Education Institutions.

Although there had not been much research on the clinical learning environment of nursing students in Nigeria, the country of this study, international studies have revealed that there is widespread dissatisfaction among nursing students with their learning environment. The outcome of a study in Zambia on nursing students' satisfaction with their learning environment shows that the students were unhappy with their clinical learning environment based on the following reasons: indifferent outlooks from the qualified experienced nursing staff, insufficient equipment, staffing, and non-availability of mentors. All these factors hamper clinical skills attainment and affects the knowledge and skills of nurses being produced after their training (Lukupa 2017). Studies in Tanzania (Gemuhay et al. 2019), South Africa, (Lekalakala-Mokgele and Caka 2015), Turkey (Arkan, Ordin, and Yılmaz 2018) and Iran (Mamaghani et al. 2018) all demonstrated problems experienced by student nurses in the clinical learning environment, although each did report some positive aspects in amongst the negative issues raised. A study conducted in Malawi (Mbakaya et al. 2020) reported that nursing students were also dissatisfied with the available resources and also with the hostile environment, poor relationship with qualified staff and the lack of clinical supervisors. Another study among Malawian nursing students showed that where clinical facilitators who receive necessary training and support from the service setting and institutions tend to show positive attitudes in guiding the nursing students, by devoting more time to the individual and collective supervision of these nursing students, which has made them acquire the necessary skills that build confidence and competence in rendering effective healthcare to patients while on clinical postings. This is seen as a means of socializing them through role-modelling in demonstrating proficiency, which made the students aware of the authenticity of their training (Phuma-Ngaiyaye, Bvumbwe, and Chipeta, 2017; Gurková et al., 2016). In essence, this shows that 'training the trainer goes a long way to assist the trainee.

In Nigeria, the Nursing and Midwifery Council of Nigeria (NMCN) stipulates the number of hours that nursing students are required to practice in various clinical settings in the curriculum. These settings range from hospital facilities to community practice settings and the goals of each clinical placement are clearly defined. Students are required to interact with their clinical environment and be mentored by clinical facilitators, senior nursing skilled associates and other healthcare practitioners like Physicians, Pharmacists, Laboratory Technicians, and

Radiographers etc. New teaching methods, such as virtual reality, and assessment policies, such as objective structured clinical examination (OSCE), are now being introduced by the NMCN in order to prepare students' competencies before going on to clinical areas to care for real-life patients to promote patient safety. Clinical facilitators, unit leaders and lecturers are also orientated on new trends in training, learning and student assessment to provide qualitative tutorial room and clinical teaching (NMCN, 2017).

2.5 Challenges related to Clinical Learning Environment (CLE)

The challenges related to the CLE of nursing students are enormous and result in clinical anxiety and clinical vulnerability. Clinical anxiety involves nursing students' worries as they are faced with patients' needs that they might not be able to deal with and in making mistakes that might leads to loss of life. Clinical vulnerability relates to non-conducive, or unsupportive, environments associated with bullying, discrimination, abandonment, poor access to practical tools and limited learning opportunities from clinical senior nursing colleagues, instructors and other members of the health team (Dinmohammadi, Jalali and Peyrovi, 2016; Palese et al., 2018). Organizational shortcomings relating to the provision of equipment/instruments, human resources, and the inability of the students to be able to contact their clinical facilitators impede the students' ability to properly merge theory and practice and reduce opportunities for adequate reflection during clinical meetings (Ekstedt et al.,2019). Nursing ethics are not discussed with nursing students during practical sections, due to incompetence and nonchalant attitudes of nurse manager clinicians in updating themselves about current trends in the profession. (Song, 2018; Palese et al., 2019).

All these challenges have been observed to affect good communication, repeated intervention of patients' nursing care and reduce the care provided to patients, including the failure to notice something critical about patient's condition. This reduces nursing students' ability to grow to full competence in their chosen career (Henley et al. 2018).

On the other hand, the clinical facilitators are also faced with the challenge of inadequate time for supervision due to workload on their various wards, improvising with the few available materials to teach students, lack of recognition by faculty members and poor remuneration by health care services and nursing education institutions (Ekstedt et al., 2019).

2.6 Improving Clinical Learning Environment

Simulation based education and learning experiences have been observed to improve teamwork, communication skills, performance, competence and confidence of nursing students in preparing them for clinical practice (Luciara et al., 2017; Eun Ko and Hye,2017; Briscoe et al.,2017; Hansen and Bratt, 2015). Other learning and teaching methods that seem to have a positive effect on nursing students are peer-assisted learning (PAL) (Rosenberg et al., 2019 ; Ekstedt et al., 2019 ; Papagiorgis et al. 2016).

Nonetheless, the availability of materials for various procedures, education-minded manpower, adequate security and constant maintenance of the spoilt equipment /instruments has also been observed to improve nursing students' practical satisfaction level at the government-owned hospitals (Nepal et al., 2016). Physical structures, attitudes of unit managers, leadership styles, demonstrations of mentor-mentee supervision relationship, frequent clinical meetings and periodic evaluation of nursing students' performance were seen to promote nursing students' satisfaction during clinical practices (Papastavrou et al., 2016b ; Gurková et al., 2016 ; Hansen and Bratt, 2015).

2.7 Evaluation of the Clinical Learning Environment

There are various types of evaluations using different tools to ensure quality CLE for nursing students. Instruments that seem effective in measuring the clinical learning environment of nursing students are questionnaires and the clinical learning environment scale and teacher scale (CLES+T) scale (Dadgaran et al., 2016; Cervera-Gasch et al., 2017; Rosenberg et al., 2019; Vizcaya-Moreno et al., 2015).

Moreover, mentoring nursing students has really assist the clinical nurses in overcoming a lot of challenges through their involvement in self-training which had made them delivers their best in the training of the junior colleagues (Soto et al. 2017).

The Clinical Learning Environment, Supervision and Nurse Teacher Scale (CLES+T) instrument has international acceptance and is widely used to evaluate the clinical learning environment (Saarikoski et al., 2008). It was specifically constructed to assess the students' perception of the learning environment and supervision within clinical placement (Gustafsson, Blomberg and Holmefur, 2015). The CLES + T tool assesses five domains namely supervisory relationship, pedagogical atmosphere, the role of the nurse teacher, leadership style of the nurse manager

and premises of nursing on the ward. The latter basically assesses the quality of nursing care on the ward. The tool has been tested for validity and reliability in many countries including Poland (Ozga et al., 2020); Italy (Tomietto et al., 2012); Sweden (Johansson et al., 2010) and Turkey (Atay et al., 2018).

In a large scale use of the tool in nine European countries one of the important findings was that the longer students were placed in a ward, the more satisfied they were with the quality of their placement (Warne et al., 2010). While their overall experience was positive, the lowest scores were attributed to the role of the nurse teacher and the leadership style of the manager. One area of concern was the relatively low satisfaction with the cooperation between placement staff and nurse tutors.

A recent study conducted in Namibia using the CLES + T tool showed general satisfaction with the quality of the learning environment. The area with which the students were least satisfied was that of clinical supervision (Haukongo 2020). This study showed that the quality of supervision affected the students' perception of the pedagogical atmosphere, indicating that supervisors play a significant role in the successful learning of students. Unlike the European study (Warne et al., 2010), the Namibian study found that students were satisfied with the cooperation between placement staff and educators. Similar results were obtained in another southern African study conducted several years earlier in the Western Cape (Borrageiro, 2014), which showed that format and type of clinical accompaniment and supervision students received varied.

Other studies show that the perception nursing students have of the clinical environment varies from one facility to another and that their understanding about the structures, their interaction with members of the health team, availability of equipment and instruments for practice as well as their experiences with patients influences whether they develop a positive or negative perception of the learning environment (Haraldseid, Friberg and Aase, 2015). These factors also impact on their ability to develop clinical reasoning which can be further advanced by the concurrent usage of traditional and simulation training during their clinical postings (Raniere de Oliveira Costa et al., 2020).

Students believe that collaboration among nursing education institutions, peer support and effective communication ensure a favourable learning environment.(Aktaş and Karabulut, 2016). One-on-one clinical facilitators' meetings with nursing students, and constant guidance and support have a positive influence on their skills and success in the clinical learning environment

(Dimitriadou et al., 2015; Saukkoriipi et al., 2020; Phuma-Ngaisyaye et al, 2017). Awareness of other members of the health team about the presence of nursing students in the service setting and due recognition of these students as part of the nursing team without discrimination, seems to improve the academic motivation of the students (Aktaş and Karabulut, 2016).

However, nursing students' perceptions were negatively affected by lack of confidence displayed by some patients that students are not competent to assist them, the constant presence of facilitators monitoring various procedures, and correction and negative feedback in the presence of patients.

These factors serve to reduce their enthusiasm for learning in the service setting (Serçekuş and Başkale, 2016). Stress in the form of various clinical responsibilities, inability to have free time to themselves, fear of failing the course and cumbersome learning materials are further factors mentioned by nursing students as contributing to negative motivation about the clinical setting (Liu et al., 2015).

2.8 Conclusion

From the literature reviewed, it is clear that it is necessary for students to feel secure in the clinical learning environment to have access to the required equipment and tools and to have guidance and support from senior professional colleagues and other health care workers. There should be cordial relationships among the stakeholders to identify the nursing students' challenges and improve the training needs of these future leaders so that they can deliver the health needs of patients with courtesy. In the next chapter, the research methodology is discussed.

Chapter 3 - METHODOLOGY

3.1 Introduction

This chapter describes the research methods used in this study. The research design, population, sample and sampling procedures, research instrument, methods of data analysis, rigours and ethical considerations are discussed.

3.2 Research Design

This study adopted a sequential mixed method (QUAN-qual) design. The first and second phases of the study were quantitative in nature and included both a quality audit and a survey, followed by a smaller qualitative phase, which consisted of semi-structured interviews with clinical facilitators. In the final phase, the findings of the three prior phases were then integrated using a clinical training model to guide and answer the research question ''what is the quality of the clinical learning environment [for student nurses] in a federal health institution in Nigeria''.

Quantitative research is a way of finding out how many people think, act or feel in a specific circumstance. It involves concentrating on large sample sizes of aggregate responses. Qualitative research focuses more on the process and less on the product. Qualitative research is an in-depth description and understanding of people's beliefs, actions and events. The researcher, who is seen as the main instrument, was subjectively involved in the process.

The research methods are summarized below in table 3.1.

Table 3.1: Research phases and methods used in this study

PHASES	SAMPLE	DATA COLLECTION	DATA ANALYSIS
Phase 1	Nursing records in medical and surgical wards Stock and equipment in medical and surgical wards	Quality audit	Descriptive statistics

PHASES	SAMPLE	DATA COLLECTION	DATA ANALYSIS
Phase 2	Nursing students placed in, or having had experience of the medical and surgical wards	Survey	Descriptive statistics
Phase 3	Clinical facilitators	Semi-structured interviews	Thematic content analysis
Phase 4	Integration of results	Iterative process using a convergent coding matrix derived from the Clinical Training Model of the Republic of South Africa	

3.3 Research setting

The study took place in a Federal Medical Centre in Ondo State, Nigeria. This is a 300-bed public health care centre governed and owned by federal government of Nigeria and expected to function as teaching hospital, render health care services at primary, secondary and tertiary levels. It also offers various diagnostic services and acts as a research site for various projects. The hospital is the only referral centre for Lassa fever and Covid_19 patients for two states in the Southwest of the country. There are 23 wards of which four wards were chosen for the research study as nursing students are commonly posted in these wards.

3.4 Population of Study

Brink et al. (2018) state that a population is any set of persons or objects that possess the same characteristics in a study (Brink, Van der Walt and Van Rensburg, 2018). The population of this study comprised registered nurses being used as clinical facilitators (N=10) at a federal medical centre and nursing students in their fourth (4th) year of study (n=84) at Achievers University, Owo, Ondo state, Nigeria.

The population for this study was the students (N= 530) registered at the institution and clinical facilitators (N = 10) placed in the research setting.

3.5 Sample Size and Sampling Techniques

The idea of sampling is to obtain a part of the population from which some information about the entire population can be inferred. Brink et al. (2018) described a sample as a subset drawn to represent the relevant attribute of the whole set or population (Brink et al., 2018).

3.5.1 Phase 1

Population: The nursing records of all patients in the two adult medical and two adult surgical wards of the hospital during the month of July 2020 from which (N= 123) on the days selected for data collection were audited.

Sample and sampling: Four (4) days were designated on a convenience basis for the auditing of the records, one day for each of the four wards. The records of all patients admitted on the designated day were audited. The realized population was as follows: male medical ward = 20 records, female medical ward = 20 records, male surgical ward = 20 records and female surgical ward = 20 records.

The adult medical (male and female) were merged as one unit, sharing the same equipment and storeroom under the leadership of a unit manager demarcated by the nurses' station. Likewise, the adult surgical (male and female) were merged. The stock and equipment of the four wards merged into two separate units were audited on a mid-week day so as to give a fair representation of the average stock situation.

3.5.2 Phase 2

Population: Nursing students in fourth (4th) year who had previously worked in adult medical (male and female) and adult surgical (male and female) wards of the institution and had been involved in patient care under the supervision of the clinical facilitators (n=84).

Sample and sampling: A total sample of the fourth-year nursing students were selected for this phase (n=84). This group of students was chosen as they had all previously worked in the adult medical (male and female) and adult surgical (male and female) wards of the institution and had been involved in patients care under the supervision of the clinical facilitators and were willing to participate in the study. The questionnaire was sent to all the eighty-four (84) students through a google form link. All eighty-four students responded to the questions and answered

questionnaires were successfully received by the researcher for collation through electronic mail.

3.5.3 Phase 3

Population: Registered nurses being used as clinical facilitators (N=10) constitute the population.

Sample and sampling: - Clinical facilitators on permanent appointment in the adult medical (male and female) and adult surgical (male and female) wards, who had spent at least four (4) years in the role (n=10) were included in the sample, i.e. the population was the sample.

3.6 DATA COLLECTION

3.6.1 Phase 1: Audit of nursing records, stock and equipment

An audit tool (Annexure A) designed for a section of a study in South African hospitals (Rispel, 2015) was used to audit the nursing records and the equipment available in the units. As it was not possible within the boundaries of the current study to audit all equipment and facilities which may be needed for student nurses to practice all the skills they are required to learn and to give quality patient care, these two areas of the audit were selected as proxies for determining the quality of the learning environment. The logic was that the available equipment enabled to students to practice skills and the quality of the record keeping gave an indication of the quality of nursing care in the unit. (Rispel 2015)

The researcher approached the unit heads of the medical and surgical wards at a time that did not compromise their ward activities or patient care to request access to the patient records. The researcher had already obtained approval from the health research ethics committee of the service setting, the head of nursing services and the head of medical records about the audit of the nursing records, stock and equipment available for use on the wards. They gave their consent based on the approval letter from the ethics committee and were assured that the information would be treated with confidentiality and would be anonymized. The researcher showed the information sheet for checking the nursing records (Annexure A) to the respective unit heads and was given access to the files of the patients from the four wards (adult medical (male and female) and adult surgical (male and female).

The researcher audited each of twenty (20) patient's files for each ward for a day which amounted to a total of eighty (80) patients for the four days. This includes the general requirements, medicine charts and recordings and problem-based nursing records in the adult medical (male and female) and surgical (male and female) units on the days selected. If a criterion was met, a score of 1 was allocated, if not, a score of 0 was allocated.

The following week, the stock and equipment in all four wards was audited (Annexure B) with the managers' assistance. This was done on different days for each ward and included an audit of emergency equipment, protocol/guidelines, drugs, refrigeration of vaccines, patient's bedside equipment, materials and medical waste management. Again, with this audit, a score of 1 was allocated if the item was present and 0 if it was absent.

3.6.2 Phase 2: Student survey

The researcher obtained permission from the health research ethics committee of Federal Medical Centre Owo, Nigeria, requesting that the nursing students be allowed to participate in the research (Annexure I). The nursing students were provided with an information letter (Annexure C) and were given a hyperlink to the Google form (Annexure D) in order for them to complete the questionnaire. The students emailed their responses directly to the researcher's email and no names appeared on the form. The researcher immediately assigned a code and destroyed the email in order to ensure that the forms could not be traced back to any of the students.

3.6.3 Phase 3: Semi-structured interviews for clinical facilitators

The researcher approached the clinical facilitators at different times and places that did not compromise the patients' care and their work, explained the purpose of the study in person and provided a copy of the information sheet and questions (Annexure E and G respectively), and the consent form to participate (Annexure F1) as well as the consent form for the recording of the interview (Annexure F2). The interviews were conducted in a quiet, private area and lasted between 20 and 30 minutes each. The researcher spent some time talking informally to participants before commencing the interview in order to gain the trust and confidence of the participants. The interview for the three participants who consented to be recorded were audio recorded. The researcher took extensive notes during the interviews with the remaining seven participants and transcribed the notes immediately afterwards while they were still fresh in her

memory. Confidentiality was ensured and contact numbers provided in order for member checking to occur at a later date.

3.6.4 Phase 4: Integration of results

During the integrative phase of the study, the Clinical Training Model developed by the National Department of Health of South Africa (Nes, 2012) was used as a convergent coding matrix to display findings which emerged from each phase of the study. The researcher and her supervisor used a process of triangulation, where they considered areas of agreement, partial agreement and silence from each of the phases of the research (O'Cathain, Murphy and Nicholl, 2010).

3.7 Data Analysis

Data analysis means scaling down, arranging and giving meaning to information collected from respondents (Brink et al., 2018). In this study, quantitative analysis was used for phases1 and part of phase 2, latent content analysis was conducted for the latter part of phase 2 (comments made as part of the nursing students survey) and thematic analysis for phase 3 (semi-structured interviews with clinical facilitators).

3.7.1 Analysis of phase 1: Audit of patient records and available equipment

Information obtained from the nursing records of the eighty (80) patients were collated, coded and analysed manually using frequency and percentages in tables and bar chart figures in order to group the records available and those unavailable together. The scores were calculated to determine the level of compliance of health care givers' documentation in patients' files in the service setting. Frequency is a descriptive statistical form of arranging data values in an orderly manner to know the number of times an observation occurred in a study, while percentage is the number expressed as a fraction of 100 out of the total number represented in a data collected (Brink et al., 2018).

Likewise, information obtained from the stock and equipment was coded and analysed using frequency and percentages in tables and bar chart figures in order to group the items available and those unavailable together in each of the adult medical (male and female) and adult surgical (male and female) wards. The scores were calculated to determine the level of compliance of the service setting in meeting the clinical learning needs of nursing students.

3.7.2 Analysis of phase 2: Students' survey

The questionnaire was divided into two sections: Demographic data and Clinical placement area. The data from the survey was collated using the Statistical Pack of Social Science (SPSS) software. The responses from the nursing students were transferred onto an Excel spreadsheet in order to enable the analysis process. The first nineteen questions were analysed quantitatively using a descriptive statistical method of percentages and frequency. Question 20 was deleted from the original questionnaire after pretesting the instrument.

Four (04) of the questions were presented as negative questions (i.e., questions 12, 13, 17 &19). The results of these questions were changed into the positive before analysis, i.e., their responses were reversed. The reliability statistics of the nineteen questions was calculated by means of Cronbach's alpha.

The individual respondents' comments were taken into consideration and their comments were analysed by means of a latent content analysis. Latent content analysis was used to analyse comments made by students at the end of the survey tool. Qualitative content analysis is the process by which researchers classify collected observations from respondents and transform them into meaningful themes and categories for easy interpretation in the context of the research (Hsiu-Fang and Shannon, 2005). This consist of seven classic steps: formulating the research questions to be answered, selecting the sample to be analysed, defining the categories to be applied, outlining the coding process and the coder training, implementing the coding process, determining trustworthiness, and analysing the results of the coding process. During this process words and phrases were identified and collated to discover the underlying meaning of words.

These comments were collated, and the researcher used conventional content analysis to analyse the data. She read through the respondents' comments several times, underlining the exact words used by the respondents during the process of gathering data, made notes of her first ideas and thoughts to generate the initial codes that seemed to capture the nursing students' comments on dissatisfaction about their clinical learning environment. These codes were then sorted on how the comments related to each other, and then codes were rearranged in an orderly manner.

In the findings, reasons for dissatisfaction of nursing students in their clinical learning environment are identified and arranged into themes and categories. In the discussion, the

results are compared with the clinical training model developed by the national department of health of South Africa, in order to know the areas in which the research has contributed to knowledge. Suggestions for improvement in practice and future research is provided for further development. Data was analysed along with the researcher's supervisor and backed up with the relevant literature.

3.7.3 Analysis of phase 3: Semi- structured interview for clinical facilitators

The written information from the clinical facilitators was collated, coded and grouped into themes and categories. The audio recordings of the semi-structured interviews were transcribed verbatim and saved in hard and soft copy. The written answers were also typed and collated. These were analysed using thematic analysis steps (Braun and Clarke 2006).

Thematic analysis as a means of identifying, organizing and reporting collected data by dividing it into themes for easy collation and interpretation. It also involves figuring out the repeated information from individual respondents for easy coding (Brink et al. 2018). Thematic analysis is a method of identifying and reporting similar patterns of information collected either verbally or written from respondents into themes for easy analysis and interpretation. This information was collated and then subjected to a thematic analysis in the following six phases:

3.7.3.1 Familiarizing yourself with your data

The researcher familiarized herself with the data by listening to the audio recordings repeatedly and comparing with the notes to get to the actual information being passed across by the clinical facilitators. She also read though the written answers repeatedly and developed notes on their responses to the quality of clinical learning of their environment. The researcher further listened, transcribed the audio recordings of the clinical facilitators, their write ups and read through the transcripts several times to develop their responses and identify their common opinions within the collected data. All these were done for the researcher to acclimatize herself to their responses. A verbatim account of all verbal utterances and written responses were noted and the transcript checked, with the support of the supervisor, against the original audio recordings and written comments for accuracy.

3.7.3.2 Generating initial codes

A code is a symbol used to classify words or phrases after collation (Braun and Clarke 2006). It also involves identifying areas of respondents' interest that must be assessed meaningfully about the research problem. Having reviewed the research questions, the responses with the

related information were highlighted and recorded in an excel document in order to make the categorization of data easier and to produce the lists of the codes from the data sets in the clinical facilitators' responses and opinions. Initial codes are then generated.

3.7.3.3 Searching for themes

This phase involves the sorting of different codes generated into potential themes and collating all the relevant coded data extracts within the identified themes. The researcher, along with a co-coder, then ascertained that what the respondents said was accurate so as to confirm the findings and prevent inaccurate coding. Themes sorted out were identified by analysing the coded data in a table presentation so that the codes could be grouped into potential themes. The coded data under the themes were then identified leading to the formulation of categories. The analysed data was presented to the supervisor who examined the analysis process together with the researcher to confirm how the themes matched the content of the data.

3.7.3.4 Reviewing themes

Reviewing themes involves the refinement of themes by collapsing them together or separating them from each other, as data within the themes should be correlated meaningfully with clean and identified distinction between them (Braun and Clarke 2014). When the researcher found that selected themes match with the coded data a thematic map was used to confirm that the themes were in accordance with the clinical facilitators' perception. Several comparisons were also done by checking with the co-coder until the researcher was satisfied without any inconsistencies.

3.7.3.5 Defining and naming themes

This is a stage of further "defining and confirming" the themes that are presented for analysis, i.e., identifying the essence of what each theme is about and determining what aspect of the data each theme captures (Braun and Clarke 2014). This process was done together with the research supervisor.

3.7.3.6 Producing the report

This is the write-up about data collected in a way to convince the reader of the validity of the research work, which must be coherent, logical, non-repetitive and interesting (Braun and Clarke 2014). This report allows the researcher to review her analysis for the last time. The data was analysed together with the supervisor and backed up with relevant literature and is presented in the chapters that follow.

3.8 RIGOUR OF THE STUDY

3.8.1 Validity and reliability

The quantitative part of the study used two separate, pre-tested tools. The audit tool was designed as an audit tool for National Core Standards audits in South Africa and has been used in 3880 health establishments in South Africa (HST, 2012) as well as in the RESON study (Research into the State of Nursing in South Africa) which was conducted in 2013.

The data collected in the course of the adapted questionnaire was subjected to reliability analysis using Cronbach's Alpha method and Statistical Package for Social Science (SPSS) version 23 for reliability analysis. The results revealed Cronbach's Alpha = 0.914, Mean = 47.42; Variance = 56.393 and Standard deviation = 7.510.

3.8.2 Trustworthiness

For the qualitative part of the study, principles of trustworthiness, which is the degree of confidence a qualitative researcher has in his/her data was adhered to, as outlined by Lincoln & Guba (1985). The researcher ensured trustworthiness by presenting the data collected to the supervisor to cross-check, and took the data back to some of the participants for validation; by systematic presentation of the research process and its findings in the report for future use; by involving independent people to audit the transcription and draw themes and categories which was compared to the preliminary findings; and through the provision and documentation of enough data about the study that other users can refer to for its applicability.

3.8.3 Credibility

In this study, detail reflective notes were kept throughout in the form of a personal diary, since the researcher's conceptualization, background, psychological and emotional responses would contribute to the outcome of the study. The researcher also documented all the research process to give ample evidence of how the researcher came to the conclusions presented. Credibility scrutinizes details between what participants say and representation of viewpoints by researchers.

3.8.4 Dependability

All tape-recorded interviews, transcribed notes and personal diary were kept for audit trial to ensure the dependability of the study. To make this study trustworthy, the researcher

documented the whole research process, full descriptions of settings, kept all tape-recorded interviews, transcribed notes and personal diary for future audit as evidence as to how the conclusion was arrived at.

3.8.5 Confirmability

The researcher provided descriptive characteristics of the respondents, methods and techniques used in the study and reflective notes of self-awareness. Confirmability is comparable to objectivity or neutrality. It attempts to show that findings and the interpretations of those findings were not derived from the imagination of the researcher but are clearly linked to the data obtained from respondents. This is seen as the degree to which findings are determined by the respondents and the conditions of the inquiry and not by the biases, motivations or perspectives of the inquirer.

3.8.6 Transferability

A full description of the settings was provided in the final report to enable the readers to assess the transferability of the study findings. The descriptive characteristics of the respondents were also provided to enable the readers to consider the applicability of the findings to their own setting.

3.9 Conclusion

In this chapter the methodology used in the study has been discussed. The following chapter deals with the findings of the first phase of the study, namely the audit of records, equipment and supplies.

Chapter 4 - FINDINGS OF PHASE 1 OF THE STUDY - NURSING RECORDS, AND EQUIPMENT AUDIT

4.1 Introduction

In this chapter, the findings from phase 1 of the study are presented. The objective of this phase was to conduct an audit of the records, stocks and equipment available in the clinical learning environment in a federal health institution. As explained in the previous chapter, the purpose of auditing nursing records and available equipment was as a proxy measurement of quality of patient care (nursing records) and to determine whether students had access to adequate equipment needed to learn (equipment audit).

The findings of the nursing record audit (using Annexure A to guide data collection) is presented first, followed by the findings of the stocks and equipment audit (using Annexure B). This is followed by a discussion of these findings.

4.2 Findings of the audit of nursing records

4.2.1 General requirements

The nursing records of twenty patients in each of the male medical (MMW) and female medical (FMW) wards and twenty records of each of the male surgical (MSW) and female surgical (FSW) wards were audited. This meant that a total of eighty (80) patient records were audited. The record audit tool consisted of a section on general requirements; one on medicine charts and recording and problem-based nursing records.

Table 4.1. General Requirements

S/N	Criterion	MMW	FMW	MSW	FSW
1	The patient's identifying hospital armband corresponds to data on record i.e. name, allergies and hospital number	0	0	0	0
2	The record contains a sticker (or manual entry) indicating the patient's hospital	20	20	20	20

S/N	Criterion	MMW	FMW	MSW	FSW
	number, full name, address and date of birth on every page of the record				
3	Contact details of next of kin recorded	20	20	19	20
4	Home language recorded	20	20	20	20
5	The record indicates the clinical reason for admission	20	20	19	20
6	The patient's allergies are recorded, or if none, the record reflects this	16	20	18	09
	% Compliance Per Ward	96 (80.00%)	100 (83.33%)	74 (78.33%)	89 (74.17%)

The data shows the percentage compliance of the general requirements of each ward as MMW = 96 (80%), FMW = 100 (83.33%), MSW = 74 (78.33%) and FSW = 89 (74.17%). The armband scored zero (0) in all wards. The highest compliance was 83.33% in FMW and the least was 74.17% in FSW as reflected in the figure 4.1 below.

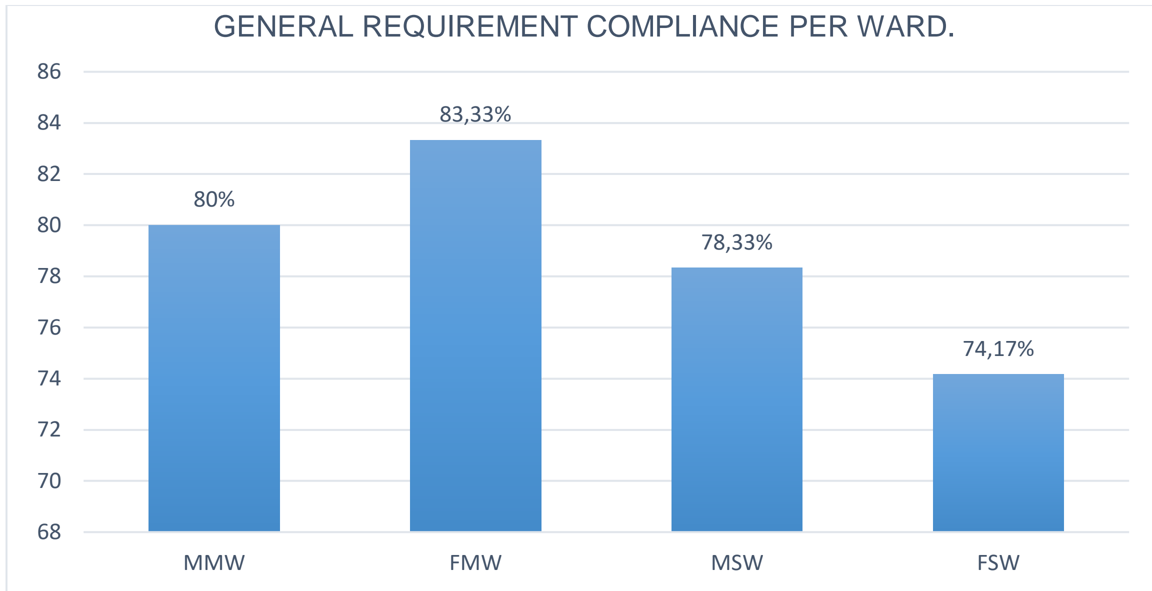

Figure4.1.General Requirement Compliance per Ward

4.2.2 Medicine charts and recordings

Table 4.2. Medicine charts and Recordings

S/N	Criterion	MMW	FMW	MSW	FSW
7	The prescription is dated and the time it was written is recorded	18	16	17	20
8	The prescription indicates the frequency and time for administering the dose	19	20	20	20
9	The prescribed medicine was given	18	20	18	18
10	The medicine administration chart indicates the name and dose of the medicine	19	20	20	20
11	The medicine administration chart indicates the route of administration of the medicine	19	20	20	20
12	Medications administered are signed, dated & the time recorded	18	18	15	18
	% Compliance Per Ward	111 (92.50%)	114 (95.00%)	110 (91.67%)	116 (96.67%)

Table 4.2. shows the percentage compliance of the medicine charts and recordings in the wards as MMW = 111 (92.50%), FMW = 114 (95.00%), MSW = 110 (91.67%) and FSW = 116 (96.67%). The highest compliance rate (96.67%) is in FSW while the least (91.67%) is in MSW.

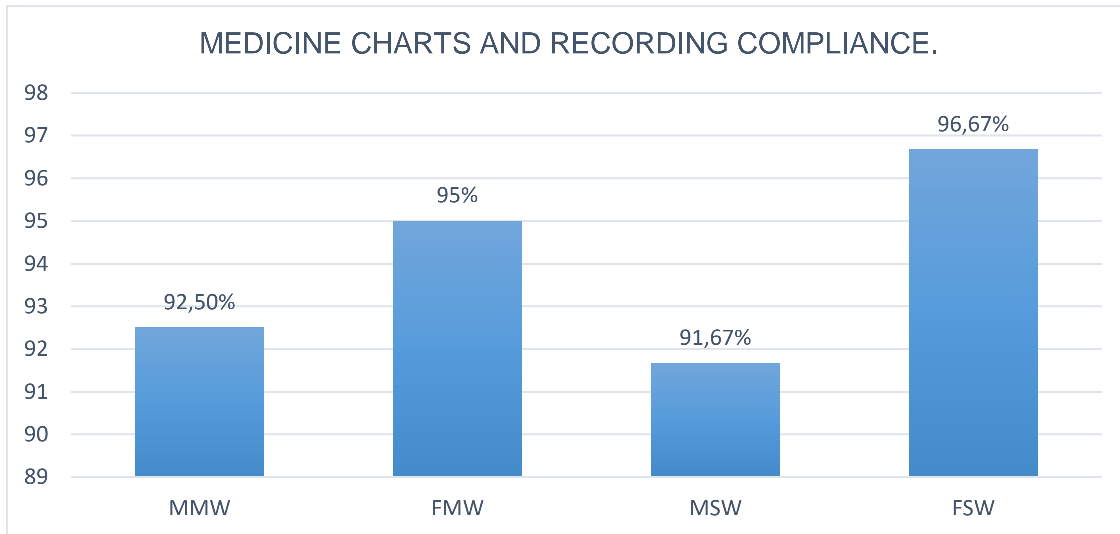

Figure 4.2. Medicine Charts and recording compliance

4.2.3 Problem based nursing records

Table 4.3. Problem Based Nursing Records.

S/N	Criterion	MMW	FMW	MSW	FSW
13	Patient’s problems are identified on admission	17	20	15	20
14	Patient’s problems are prioritized	19	20	17	18
15	A care plan is written for each of the priority problems	0	0	0	0
16	There is a daily report referring to the priority problems	18	20	17	20
17	There is a night report referring to the priority problems	19	20	12	20

S/N	Criterion	MMW	FMW	MSW	FSW
18	The day report indicates if the patient is responding to care or not	20	20	19	20
19	The entries in the nursing record are all legible	20	20	16	19
20	All the entries for the previous day and night reports are legible	20	20	17	17
	% Compliance Per Ward	133 (83.13%)	140 (87.50%)	113 (70.63%)	134 (83.75%)

Table 4.3 shows the percentage compliance of the problem-based nursing records per ward as MMW = 133 (83.13%), FMW = 140 (87.50%), MSW = 113 (70.63%) and FSW = 134 (83.75%). The highest compliance (87.50%) is in FMW and the least (70.63%) in MSW as shown in figure 4.3 below.

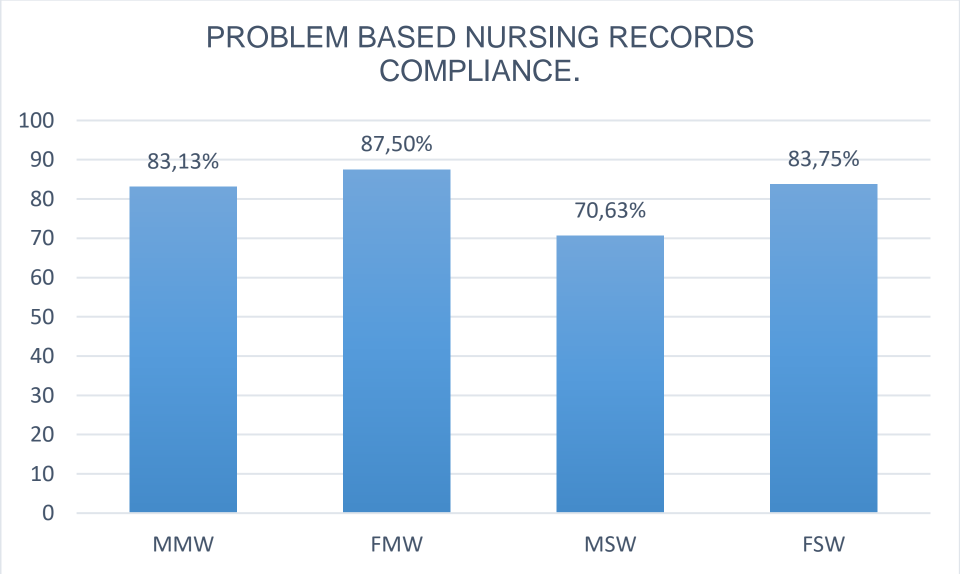

Figure 4.3. Problem Based Nursing Records Compliance

4.2.4 Summary of audited records

Table 4.4. Summary of Audited Records

Type of records checked	Total possible scores	Total scores on records checked	Total % compliance per records session
Section A: General Requirements	480 (100%)	379	78.96
Section B: Medicine Charts and Recordings	480 (100%)	451	93.95
Section C: Problem Based Nursing Record	640 (100%)	520	81.85
Total	**1600 (100%)**	**1350**	**84.36**

Table 4.4 above shows the summary of total records and percentage compliance of healthcare givers in the records of patients who have been in the hospital for at least 2 days. Twenty (20) patients' records were audited from each of the Adult Medical (male and female) and Surgical (male and female) wards making a total of eighty (80) patients. Total compliance of the health care givers in documentation and record-keeping is 84.36% as shown.

The auditing of records of eighty (80) patients revealed that few of the of the healthcare givers at the service setting are diligent in identification, documentation and communication as recorded appropriately in the patients' files. Most of the materials listed in the record checklist were available except for 'armband' and 'care plan sheet' (Tables 4.1.1, item 1 and 4.1.3, item 15). The means of identifying patients in the setting are according to their hospital number, bed number and diagnosis which are written on their files. Patients themselves are not identified.

There is also a need for health care practitioners to write legibly in the patient files and to record their allergies, signing and dating the date and time drugs were administered and whether or not those drugs were available at the scheduled time.

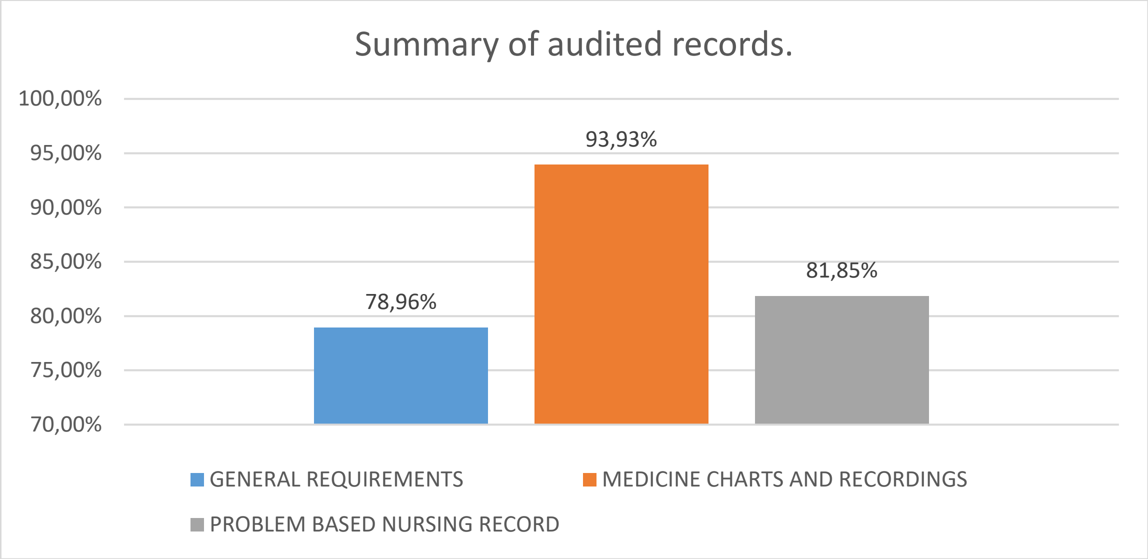

Figure 4.4 Summary of audited records

4.3 Audit of available equipment

The stocks and equipment of the four wards were merged into two units during the COVID pandemic. The equipment in the two stock rooms was audited.

4.3.1 Minimum required equipment

Table 4.5. Minimum required emergency equipment

S/N	Required equipment	Wards	
	The following equipment is present and functional in the emergency trolley in the wards. Yes = 1; No = 0	Medical	Surgical
F1	AED machine/ defibrillator	0	0
F2	Pads, paddles and electrodes for the above	0	0
F3	Universal precautions equipment - gloves	1	1
F4	Universal precautions equipment - eye protection	1	1
F5	Universal precautions equipment - facemask	1	1
F6	Suction equipment	1	1

F7	Oropharyngeal airways	0	0
F8	Naso-pharyngeal airways	0	0
F9	Manual resuscitator device (adult)	0	0
F10	Manual resuscitator device (paeds)	0	0
F11	Laryngoscope with curved blades	0	1
F12	Suction catheters	1	1
F13	Emergency medications according to local protocol (posted inside emergency trolley)	1	1
	Total	**6**	**7**

Total items expected to be available in the wards - 13 (100%)

Compliance rate in the medical ward – 6 (46.15%)

Compliance rate in the surgical ward – 7 (53.85%)

Table 4.5 above shows that only 6 (46.15%) of the 13 emergency equipment items were readily available in the medical ward, while 7 (53.85%) were available in the surgical ward.

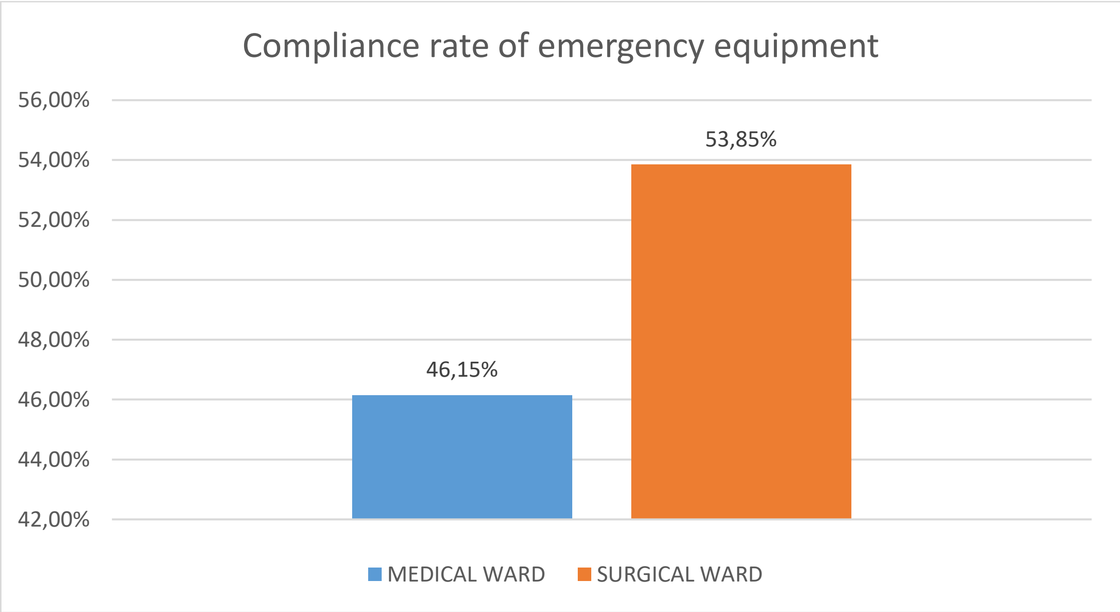

Figure 4.5. Compliance rate of emergency equipment

4.3.2 Written protocol/guidelines

Table 4.6. Written protocol / guidelines

S/N	Required guidelines	Wards	
	A protocol of guidelines on each of the following is available in the unit. Yes =1; No = 0	Medical	Surgical
G1	Management of HIV and AIDS	0	0
G2	Control of Tuberculosis	0	0
G3	Management of Asthma	0	0
G4	Management of Hypertension	0	1
G5	Standard treatment guidelines & Essential drugs list for hospitals – adults	0	0
G6	Management of diabetes	0	0
G7	Administration of blood and blood products	1	0
G8	Administration of medications	1	1
G9	Patient consent	1	1
G10	Patient Fall precautions	1	1
G11	Prevention of pressure sores	1	0
G12	Patient identification	1	0
G13	Patient restraint	1	1
	Total	**7**	**5**

Total items expected to be available in the wards - 13 (100%)

Compliance rate in the medical ward – 7(53.85%)

Compliance rate in the surgical ward – 5 (38.46%)

Table 4.6 above shows that only 7 (53.85%) of the 13 written protocols/guidelines were available in the medical ward, while 5 (38.46%) were available in the surgical ward, as revealed in figure 4.6 below.

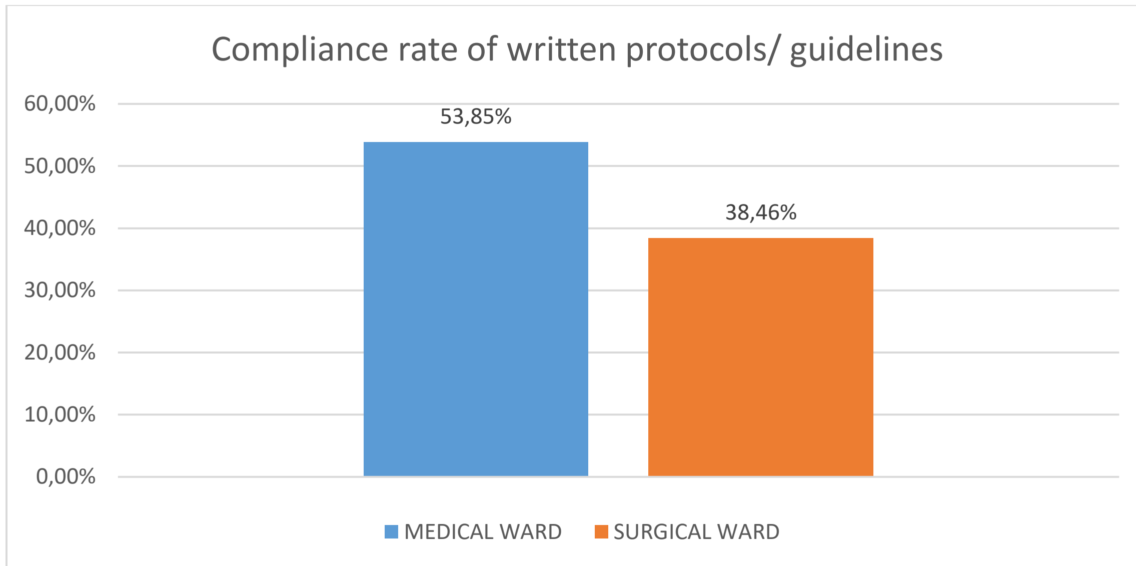

Figure 4.6. Compliance rate of written protocols / guidelines

4.3.3 Minimum required clinical equipment

Table 4.7. Minimum required clinical equipment

S/N	Required equipment	Wards	
	The following clinical equipment is available and functional in the wards: Yes = 1; No = 0	Medical	Surgical
N1	Diagnostic set	1	1
N2	Laryngoscope set	0	1
N3	NIBP, electronic (1/15 beds) (Manual available)	1	1
N4	Glucose meter	1	0
N5	HB meter	1	0
N6	Cabinet, medicine, lockable	1	0
N7	Bed pan / urinal washing machine/device (manual washing)	1	1
N8	Rack, bedpan, drying (locally improvised available)	1	1
N9	Aspirator, surgical, 2 bottle, small, < 2 litre	0	0
N10	Electrocardiograph, 12 channel	1	0
N11	Light, surgical, mobile, with battery backup	1	1
N12	Oximeter, pulse & NIBP	1	0

S/N	Required equipment	Wards	
N13	X-ray viewing box	1	1
N14	Tracheostomy set	0	0
N15	Instrument set, dressing	1	1
N16	Instrument set, IV cut-down/ central line	1	1
N17	Trolley, dressing	1	1
N18	Examination table, with pad	1	0
	Total	**15**	**10**

Total items expected to be available in the wards - 18 (100%)

Compliance rate in the medical ward – 15 (83.33%)

Compliance rate in the surgical ward – 10 (55.56%)

Table 4.7 above shows that only 15 (83.33%) of the 18 clinical equipment items were readily available in the medical ward, while 10 (55.56%) were available in the surgical ward as revealed in figure 4.7 below:

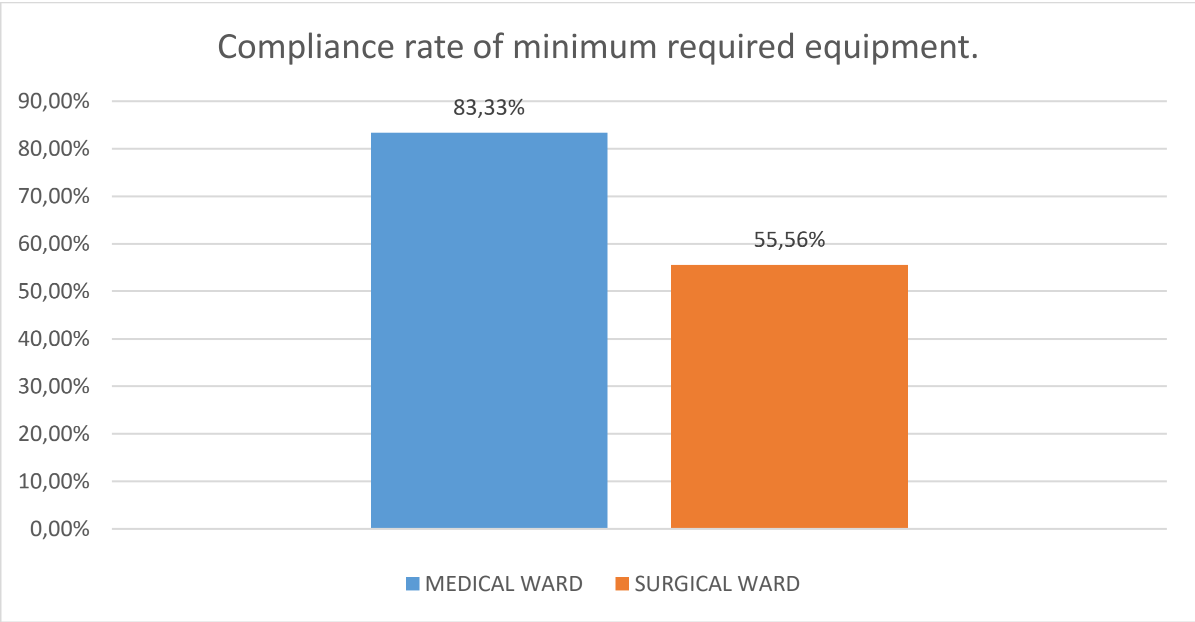

Figure 4.7. Compliance rate of minimum equipment required

4.3.4 Medical waste management

Table 4.8. Medical waste management

S/N	Required equipment	Wards	
	Yes = 1; No = 0	Medical	Surgical
X1	Suitable containers with correctly fitting lids are available for the disposal of sharps	1	1
X2	Staff members use these containers appropriately	1	1
X3	Colour coded bags are available for various types of waste	1	1
X4	Posters indicating which colour bag to use for various types of waste are prominently displayed in the ward	0	0
X5	Staff members comply with the policy on segregating waste.	1	0

Total items expected to be available in the wards - 5 (100%)

Compliance rate in the medical ward – 4 (80.00%)

Compliance rate in the surgical ward – 3 (60.00%)

Table 4.8 above shows that there were 4 (80.00%) items of five in compliance with waste management in the medical ward and 3 (60.00%) items in the surgical ward as shown in figure 4.8 below.

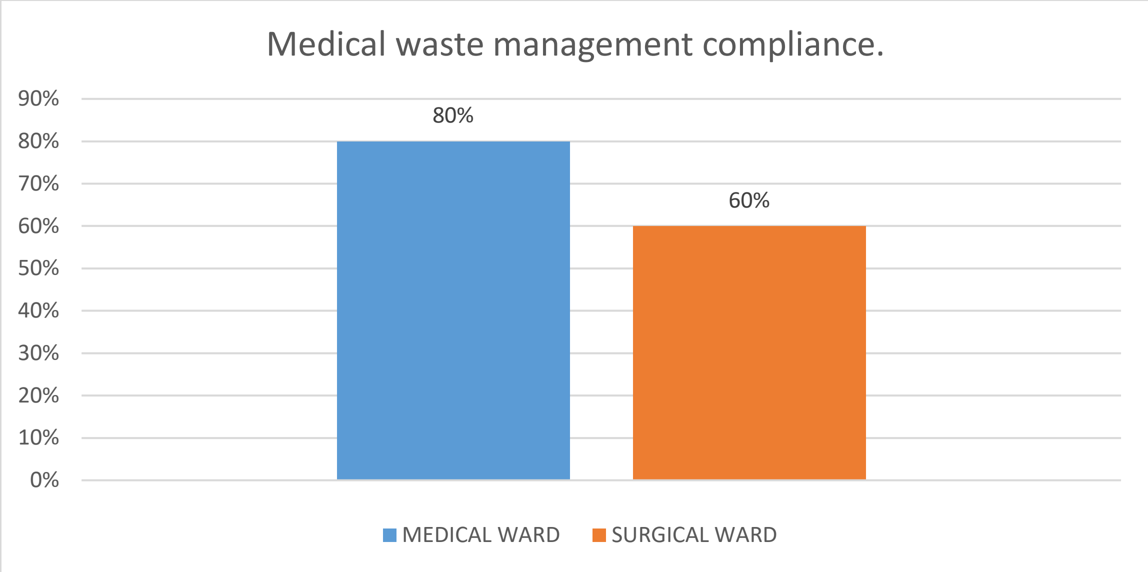

Figure 4.8. Medical waste management compliance

4.3.5 Summary of the equipment available in medical and surgical wards

Table 4.9: Summary of the equipment available in medical and surgical wards

Wards	Yes = 1	No = 0
Medical	48	37
Surgical	42	43
Total	90	80

This table shows the summary of the available equipment compliance in medical and surgical wards.

Total items expected to be available in medical and surgical wards - 85+85 = 170

Compliance rate in the medical ward – 48 (56.47%)

Compliance rate in the surgical ward – 42 (49.41%) as shown in the figure below.

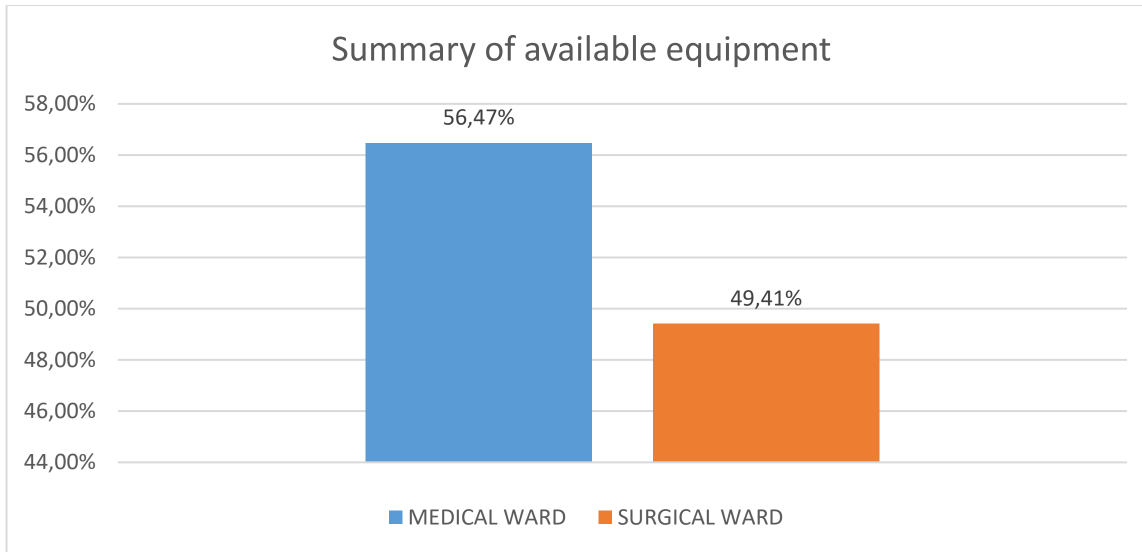

Figure 4.9. Summary of available equipment

4.4 DISCUSSION OF FINDINGS

4.4.1 Audit of nursing records

The service setting does not make use of armbands as patient identification tags in practice, but uses the name, diagnosis and bed number printed on each patients' file number for identification. They usually call and recognize each patient every shift, while attending to them, as well as handing and taking over, and a relative is usually allowed to be with an unconscious patient to answers for him or her in the course of treatment.

A challenge is in the area of administering prescribed medicine: most prescribed medicines are either not available to be given to patients because the practice in the service setting is for every patient to buy their drugs after 48 hours of attending to them on emergency, so any patient not able to buy their drugs will find it difficult to receive such medicine. Furthermore, there was lack of care plan sheets at the time of the data collection, which made the nurses improvise other sheets for the purpose.

A critical look at the above findings indicates improper documentation could actually affect the teaching and learning activities of nursing students in the service setting thereby reducing the quality of their clinical learning environment. This is because they were not able to practice

according to taught standards. Improper documentation could also lead to litigation of the healthcare givers or hospital.

4.4.2 Audit of available equipment

The written protocols/guidelines, which would guide the staff in relation to the requirements for a quality clinical learning environment are very scanty on the wards. The challenge with this system is that nothing is written and therefore staff and students have to rely on memory when caring for the patients. A committee on patient safety and quality improvement from American College of Obstetricians and Gynaecologists (ACOGs), 2019 and reiterated that clinical guidelines and protocols are known to reduce adverse events and, as they are based on evidence are more likely than word of mouth to guide health care professionals to provide quality care (Zegers et al., 2016, American College of Obstetricians and Gynaecologists, 792). If students have access to the protocols, they can read them if they are uncertain about procedures in the absence of a qualified staff member to guide them.

The process of patients being responsible for buying their own drugs means that indigent patients might not be able to afford healthcare delivery services, and consequently students will not learn correct care if various types of drugs prescribed for different health conditions are not available. It also raises ethical issues, which may cause concern to the students.

The system of stocking drugs medicine and vaccines on the wards is not in place in the service setting. Vaccines are managed by the community department. The only drug register available was the Dangerous Drug Act (D.D.A.) register. A few emergency drugs were kept in a tray, which was checked often to know which ones will expire soon. Other drugs are kept inside individual patients' lockers for administration as and when due. The minimum required emergency equipment compliance in the wards could be described as average as shown in table 4.5 and figure 4.5.

The summary of all the available equipment as shown in table 4.9 and figure 4.9 shows that there was not enough equipment available for teaching and learning of nursing students for them to have quality clinical learning environment.

Studies indicate that nursing students reported poor access to practice tools and organizational shortcomings relating to provision of equipment/instrument which, they said, reduced nursing students' ability to grow. This means that inability to get the right practical tools can reduce the

quality of learning in the practice area (Palese et al. 2018); Ekstedt, Lindblad and Löfmark, 2019). In another study, comment that availability of materials and constant maintenance of equipment/instruments improved the nursing students' satisfaction at government owned hospitals (Nepal et al., 2016). Nursing students' access to well-maintained equipment enables them to learn how to render quality care to patients (Dahlke et al., 2016).

While it is acknowledged that the majority of the records, stocks and equipment were not available for teaching by clinical facilitators and learning for students, it is important to recognize the constraints in the research setting. Obsolete and inadequate equipment, and the negative attitude of some senior professional colleagues due to workload were some of the reasons for not being able to provide adequate facilities and nursing records. The findings from the analysis shows that all the necessary things needed to achieve quality learning environment for these students are not adequate and needed to be improved upon for them to achieve clinical competencies.

Donabedian considered to be the ''father'' of the quality in health care movement, stated that structure, processes and outcomes were all interdependent in determining quality (Donabedian, 1988).

The findings of this phase of the study indicate that structural issues are not ideal for students' training in the research setting, if compared to the audit tool used for this purpose. Two points of interest arise from this. The first is that the tool used was developed for South African public sector hospitals where the health sector is more robust than that of the public sector in Nigeria. In 2018, the World Bank reported that Nigeria spent 3.89 GDP on health whereas South African spent 8.25 of GDP on health (World Bank, 2018). The South African tool is based on the requirements of the office of health Standards Compliance and those standards are clearly set for the aspirant standards of that country. What was done in this phase of the study was to carry out a quality audit based on international (or at least sub-Saharan African) best practice rather than best equivalent provider standards which may have been more appropriate given the marked socio-economic differences between the countries.

The second point of interest is that, if one accepts it is not possible to provide quality internationally comparable standards of clinical learning, does one continue to do the best one can, or does one stop training? In a much-needed strategy developed for nursing education and practice in Nigeria, it was pointed out that ''nursing in Nigeria is yet to be recognize as both a profession and a business (market), influenced by factors of supply and demand'' and went on

to describe the shortages of nurses in the country. It would certainly not be the right thing to do to stop nurse training until the structure was in place to support it adequately (Agbedia 2012). Sadly, nearly a decade later, the situation does not appear to have improved if the findings of this study in one hospital are representative of the rest of the country's hospitals.

This graphic remark, ''saying that the Nigerian health sector is in shambles is tantamount to saying the sky is up above.'' (Ubochi et al., 2019) The reason for this could be explained by the recent findings that there is 'marginal'' nursing leadership in policy formation in Nigeria (Asuquo, 2019).

4.5 CONCLUSION

In this chapter the findings of the record audit and the audit of equipment and supplies have been presented and discussed. According to the framework guiding this study, it is important to understand the students' and the nurse educators' perspectives on the quality of the clinical learning environment. The following chapter therefore presents the findings of survey of the nursing students in this regard.

Chapter 5 - FINDINGS OF PHASE 2 OF THE STUDY - NURSING STUDENTS' SURVEY

5.1 Introduction

In this chapter the findings from phase 2 of the study are presented. The objective of this phase was to assess the quality of the clinical learning environment from the nursing students' perspective.

The findings of the survey (using Annexure D to guide the data collection) are presented followed by a discussion of these findings.

The survey consisted of two sections, viz Section A: socio-demographic data and Section B: perceptions of the clinical placement area.

The clinical placement area section consisted of twenty (20) questions. The options included simple ''yes'' and ''no'' or ''not applicable'' answers for questions 1 to 19. Question 20 was intended to be an open-ended question. As this question had erroneously been allocated spaces on the Likert scale, the data was excluded from the survey results, and where participants had added comments here and, in the section, where they were specifically invited to make other comments these were subjected to a directed content analysis.

5.2 Socio-demographic data

5.2.1 Gender

The socio-demographic data revealed that 86.9% (n=73) of the participants were female, 11.9% (n=10) were male and 1.2% (n=1) did not state their gender on the survey form.

5.2.2 Age distribution

Most (63.01%, n=53) of the participants were between the ages of 18-22 years, followed by 28.06% (n=24) who were between 23 and 27 years. The age group of 28 years and older is the smallest group 7.01% (n=6). One participant did not indicate his or her age (1.02%). As the group consisted of student nurses, the majority of whom come from school to study nursing, the age distribution was as expected. The age distribution is illustrated in figure 5.1 below,

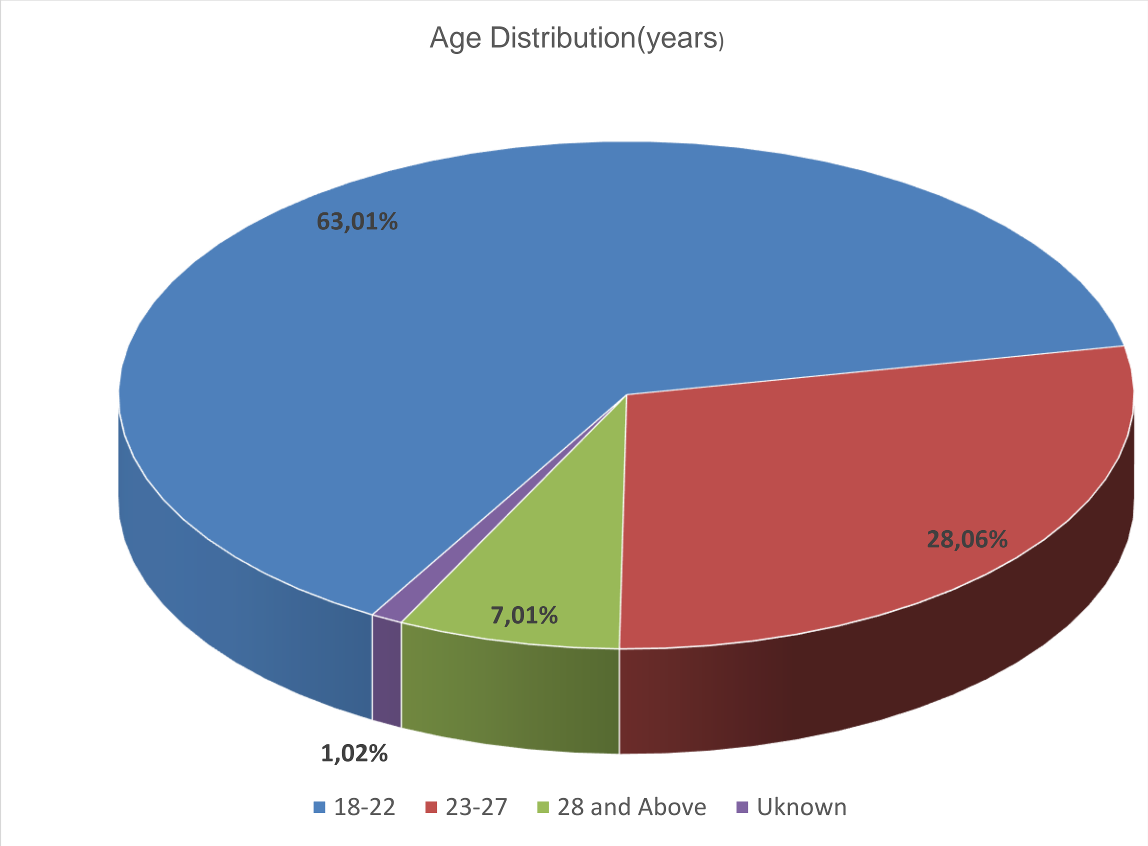

Figure 5.1.: Age distribution of participants (years).

5.3 Clinical placement area

As the researcher added additional items to a previously validated questionnaire, the results were used to establish reliability of the items. This process will be described first followed by the findings drawn from the students' responses.

Four of the questions were presented as negative questions (i.e. 12, 13, 17 & 19). The results of these questions were changed into positive before analysis, i.e., their responses were reversed.

5.3.1 Reliability of the questionnaire

Eleven (11) of the questions in the clinical placement section of the survey had been validated by a previous researcher and author of the original tool, but the remaining nine (09) (i.e., items 10, 11,12,13,14,17,18,19 and 20) were developed by the researcher based on her years of

experience in the clinical area. Four (04) of the questions were presented as negative questions (i.e.12, 13, 17 &19). The results of these questions were changed into the positive before analysis, i.e. their responses were reversed.

The reliability statistics of the nineteen questions was calculated by means of Cronbach's Alpha and scored 0.914 as seen in table 5.1 below.

Table 5.1. Reliability statistics

Cronbach's Alpha	Number of items
0.914	19

Reliability is a number that ranges from 0 to 1. The closer the values are to 1, the higher the reliability. The reliability of the questionnaire is therefore acceptable.

Analysis was done on the items in the questionnaire using descriptive statistics. The results are depicted in table 5.2 below.

Table 5.2. Item statistics

	N	**Mean**	**Std. Deviation**
Q1	84	2.64	0.652
Q2	84	2.51	0.685
Q3	84	2.60	0.661
Q4	84	2.63	0.655
Q5	84	2.62	0.727
Q6	84	2.65	0.668
Q7	84	2.27	0.588
Q8	84	2.75	0.674
Q9	84	2.69	0.676
Q11	84	2.35	0.768
Q12	84	2.04	0.477
Q13	84	2.46	0.667

	N	Mean	Std. Deviation
Q14	84	2.70	0.636
Q15	84	2.52	0.685
Q16	84	2.52	0.649
Q17	84	2.04	0.424
Q18	84	2.55	0.735
Q19	84	2.11	0.581

The mean is the mathematical average of a set of numbers. It is a measure of central tendency and as such it is a single value representing the central position in the data. The means ranged from a low of 2.04 for questions 12 and 17 to a high of 2.75 for question 8.

Question 12 read, “The clinical facilitators were unfriendly and inconsiderate towards me.” and question 17 read, “The clinical placement was always boring and like a waste of time to me.” These were both negative items but, as explained above, were reversed prior to analysis but had the lowest scores in the questionnaire.

Question 8, which scored the highest mean, read, “As a nursing student I am willing to learn.”

The standard deviation is a measure of spread of the data about the mean value. It is important to take note of any items that have especially high or low scores. A high standard deviation shows that the data is widely spread and therefore considered less reliable. Conversely, a low standard deviation indicates that the scores are clustered closely around the mean and are considered to be more reliable.

The standard deviation ranged between 0.424 for question 17 and 0.768 for question 11.

Questions 5, 11 and 18 had the highest standard deviations. Question 5 read, “There is effective communication between the clinical facilitators and other staffs in the clinical facility.”

Question 11 read, “The clinical facilitators usually dominate the debriefing sessions” and question 18 read, “I enjoy going to my clinical placement because of the conducive environment.”

The item-total statistics were calculated which describe how each individual question, or item, relates to the total of all the items as shown in table 5.3 below. The purpose of doing this is to check if any item, or question, in the set of tests is inconsistent with the averaged behaviour of the others. If any item is found to be inconsistent, it should be eliminated from the questionnaire.

Table 5.3. Item – Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1.	45.53	45.568	0.873	0.903
2.	45.63	46.654	0.695	.907
3.	45.60	45.214	0.810	0.904
4.	45.53	45.913	0.749	0.905
5.	45.63	45.689	0.688	0.907
6.	45.50	46.948	0.637	0.908
7.	45.77	46.944	0.650	0.908
8.	45.40	47.076	0.767	0.906
9.	45.53	47.982	0.459	0.914
10.	45.70	47.872	0.537	0.911
11.	45.97	47.895	0.408	0.916
12.	46.17	49.868	0.381	0.914
13.	45.80	47.614	0.520	0.912
14.	45.37	48.102	0.773	0.907
15.	45.53	48.120	0.611	0.909

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
16.	45.53	46.740	0.718	0.907
17.	46.23	51.978	0.155	0.917
18.	45.60	48.800	0.438	0.913
19.	46.17	52.144	0.070	0.921

According to Field (2005), a small item-correlation show that the item is not measuring the same construct measured by the other items included. He also suggests that a correlation value less than 0.3 indicates that the corresponding item does not correlate very well with the scale overall and should be removed from the questionnaire (Field 2005).

In this study, the two questions that scored < 0.3 are questions 17 and 19. Question 19 read, “I was dissatisfied with my clinical experience.” Question 17 which read, “The clinical placement was always boring and like a waste of time to me” also appeared as an outlier in both the standard deviation and the mean scores. All other questions were deemed to be reliable.

5.3.2 Responses to individual questions

In order to facilitate reading the remainder of the chapter, the question numbers and questions asked are provided in table 5.4 below.

Table 5.4. List of questions

	STATEMENT
1.	We receive a manual containing all rules guiding clinical practice prior to commencement of clinical placement.
2.	I get sufficient clinical exposure during the clinical postings.
3.	There is enough clinical supervision by the clinical facilitators during my posting.
4.	Nursing students and clinical facilitators have effective communication.
5.	There is effective communication between the clinical facilitators and other staffs in the clinical facility.
6.	The learning facilities are supportive of professional growth, skills development and practice of nursing students.
7.	There is enough equipment for students' clinical practice in the hospital.
8.	As a nursing student I am willing to learn.
9.	I am willing to accept constructive criticism.
10.	A special time is planned for students' clinical presentation as repertoire of what had been learnt.
11.	The clinical facilitators usually dominate the debriefing sessions.
12.	The clinical facilitators were unfriendly and inconsiderate towards me.
13.	The clinical facilitators seldom go around the ward to talk to the students
14.	I usually have a sense of satisfaction after my shift that I have learn to assist a patient.
15.	The university has enough equipment and material resources for demonstration of clinical skills than we experienced on the ward.
16.	The university has enough space for clinical teaching and learning activities.
17.	The clinical placement was always boring and like a waste of time to me.
18.	I enjoy going to my clinical placement because of the conducive environment.
19.	I was dissatisfied with my clinical experience.

Some participants omitted to answer some of the questions. This was taken into consideration when analysing the data. Question 8, 9, 10 and 15, were skipped by 1 participant each,

Question 11 was skipped by 3 participants and Question 19 was skipped by 2 participants. The total number of skipped questions was six (06) by ten (10) participants.

Simple descriptive statistics were used to determine the responses.

5.3.1. Question 1: We receive a manual containing all rules guiding clinical practice prior to commencement of clinical placement.

Figure 5.2. Shows that the majority (73.08 %, n=62) of participants received manuals guiding their clinical practice before the commencement of their postings. A minority (16.07%, n=14) of them claim not to have received a manual and very few (9.05%, n=8) stated this was not applicable.

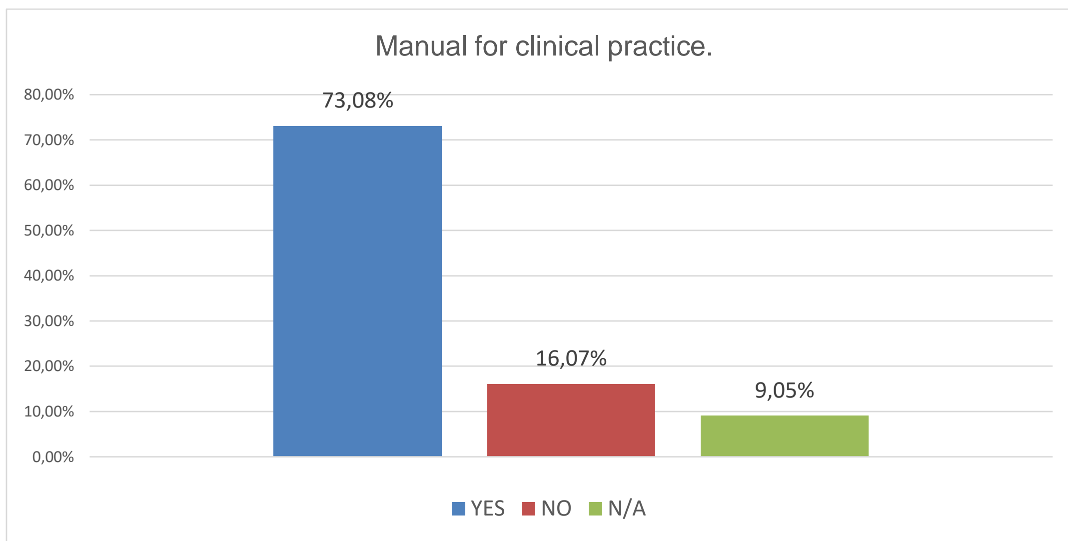

Figure 5.2: Manual for Clinical practice.

5.3.2. Question 2: I get sufficient clinical exposure during the clinical postings.

Figure 5.3. Shows that the majority (61.09%, n=52) of the participants claimed to have sufficient clinical exposure during their postings. A minority 27.04% (n=23) of them felt they did not have sufficient exposure and 10.07% (n=9) stated it was not applicable.

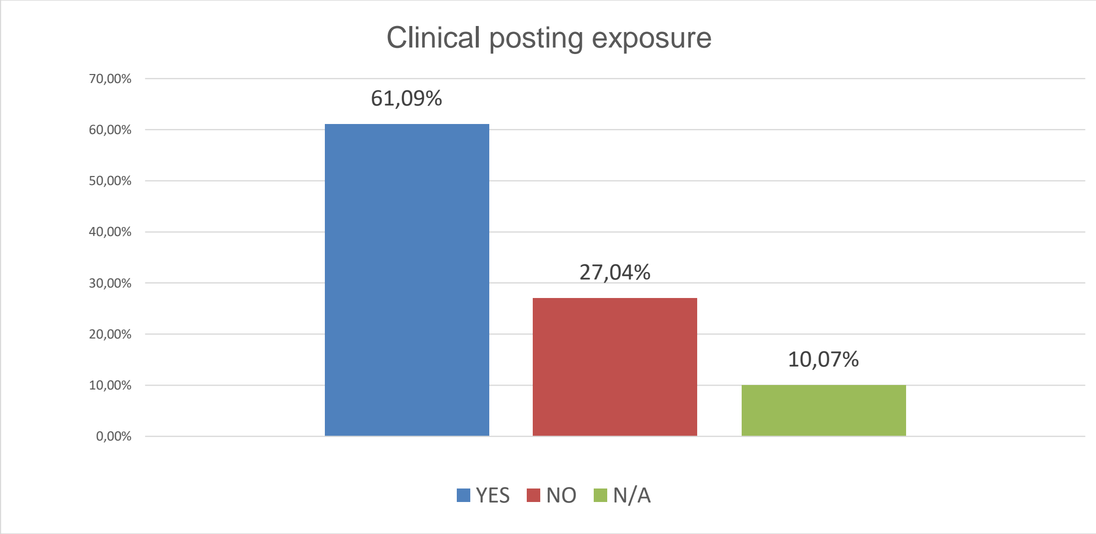

Figure 5.3: Clinical posting exposure.

5.3.3. Question 3. There is enough clinical supervision by the clinical facilitators during my posting.

Figure 5.4 shows that the majority (69.01%, n=58) of participants believed they were well supervised by the clinical facilitators. A minority 21.04% (n=18) felt they were not, and only 9.05% (n=8) stated it was not applicable.

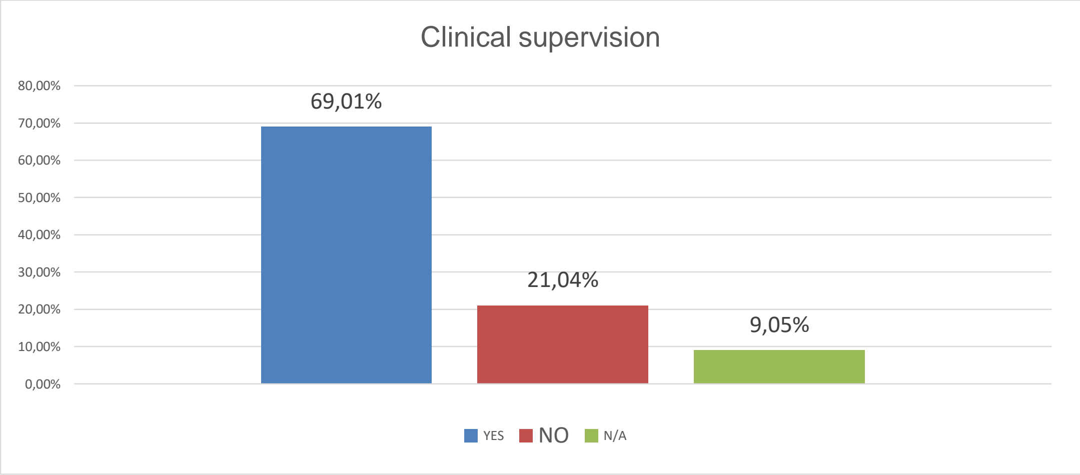

Figure 5.4: Clinical Supervision.

5.3.4. Question 4. Nursing students and clinical facilitators have effective communication.

Figure 5.5 shows that the majority (72.06%, n=61) of participants believed there was effective communication between them and their clinical facilitators. A minority 17.09% (n=15) were not satisfied and 9.05% (n=8) stated it was not applicable.

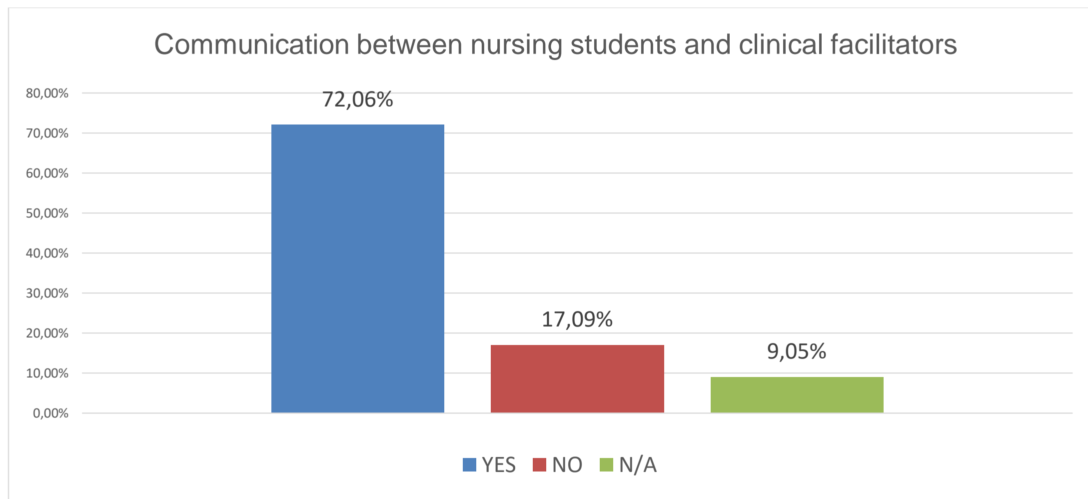

Figure 5.5: Communication between nursing students and clinical facilitators.

5.3.5. Question 5. There is effective communication between the clinical facilitators and other staff in the clinical facility.

Figure 5.6 shows that the majority (76.02%, n=64) of participants believed that there was good rapport between the members of health care team and the clinical facilitators within the service setting. Few (9.05% or n=8) believed there was not effective communication between the clinical facilitators and other staff and (n=12 or 14.03%) stated the item was not applicable.

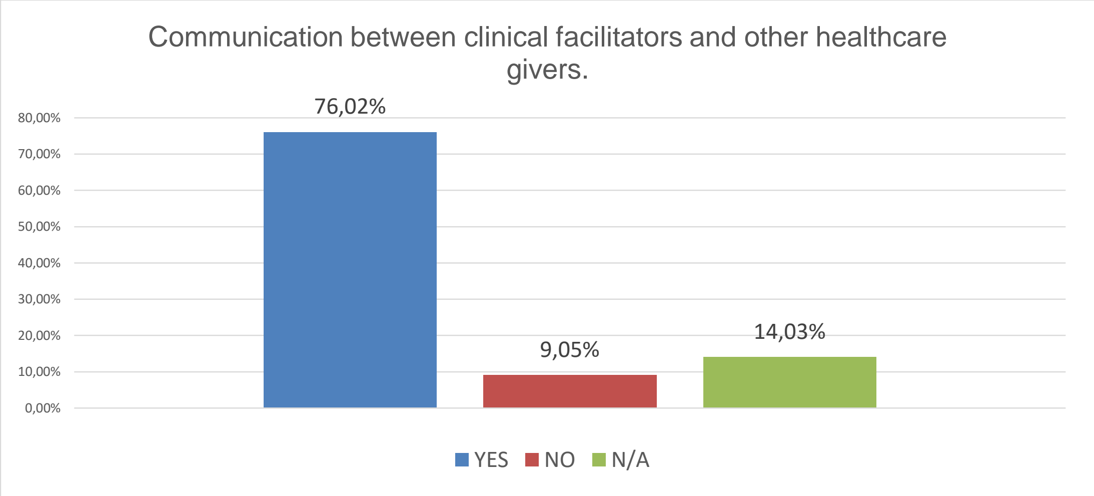

Figure 5.6: Communication between clinical facilitators and other healthcare givers.

5.3.6. Question 6. The learning facilities are supportive of professional growth, skills development and practice of nursing students.

Figure 5.7 shows that the majority (76.02%, n=64) of participants felt that the available facilities had improved their professional growth, skills and knowledge. A minority 13.01% (n=11) of them felt they had not gotten enough and 10.07% (n=9) stated it was not applicable.

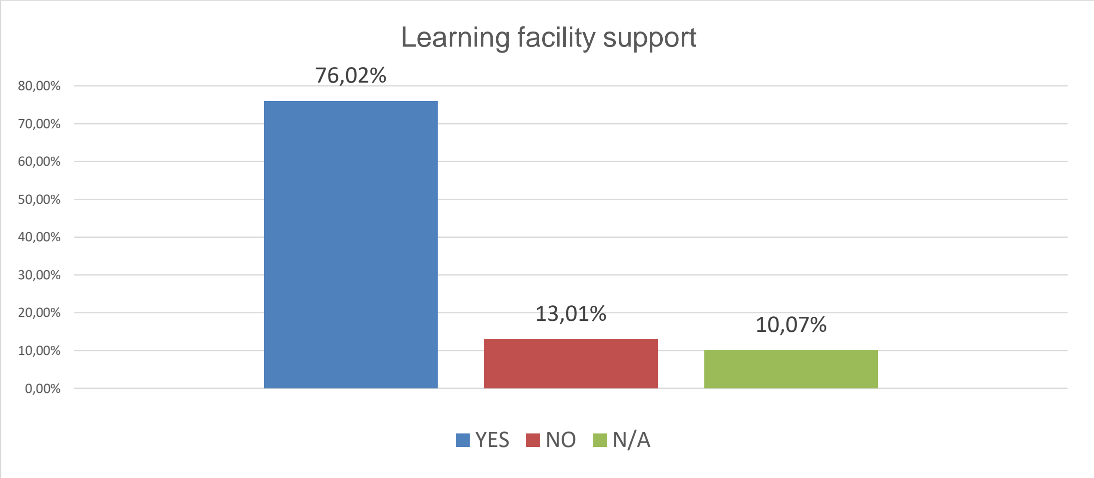

Figure 5.7: Learning facility support.

5.3.7. Question 7. There is enough equipment for students' clinical practice in the hospital.

Figure 5.8 shows that the majority (58.03%. n=49) of participants believed they did not have enough practical tools to practice with within the service setting during their practical sessions. A minority, 34.05% (n=29), indicated that they were able to practice with what they had and 7.01% (n=6) stated it was not applicable.

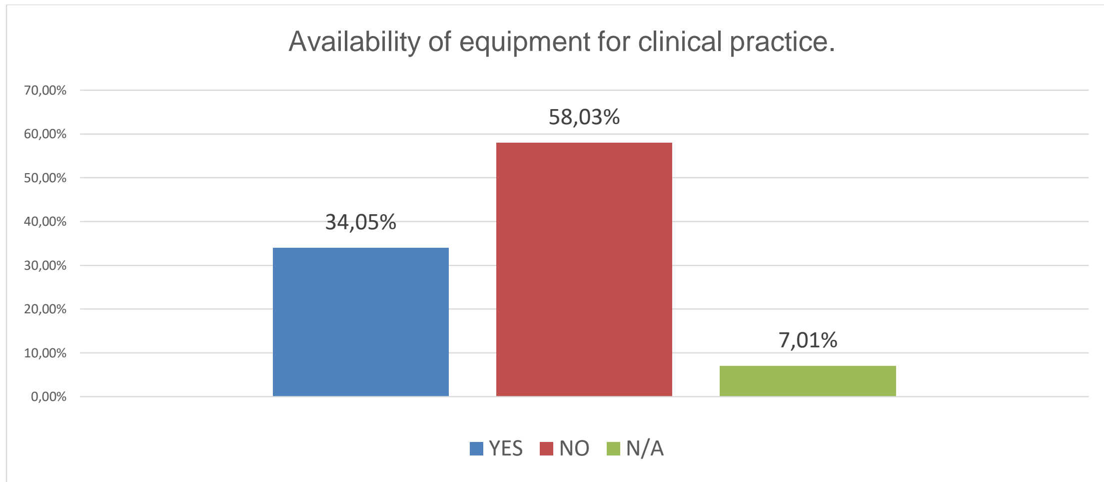

Figure 5.8: Availability of equipment for clinical practice.

5.3.8. Question 8. As a nursing student I am willing to learn.

Figure 5.9. Shows that the majority (86.09%, n=73) of participants were eager to put in their best effort to learn. A minority 2.04% (n=2) were not, 9.05% (n=8) stated it was not applicable and 1.02% (n=1) did not answer the question.

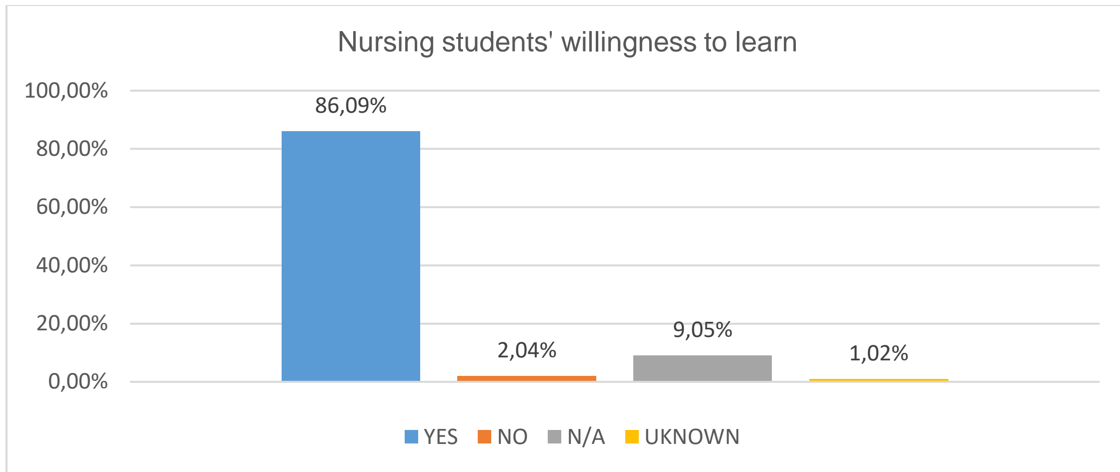

Figure 5.9: Nursing students' willingness to learn.

5.3.9. Question 9. I am willing to accept constructive criticism.

Figure 5.10 shows that the majority (79.08%, n=67) of participants had a high level of tolerance to being criticized. A minority 10.07% (n=9) were not, whereas as eight (n=8 or 8.03%) stated it was not applicable and one n=1 (or 1.025) did not answer the question.

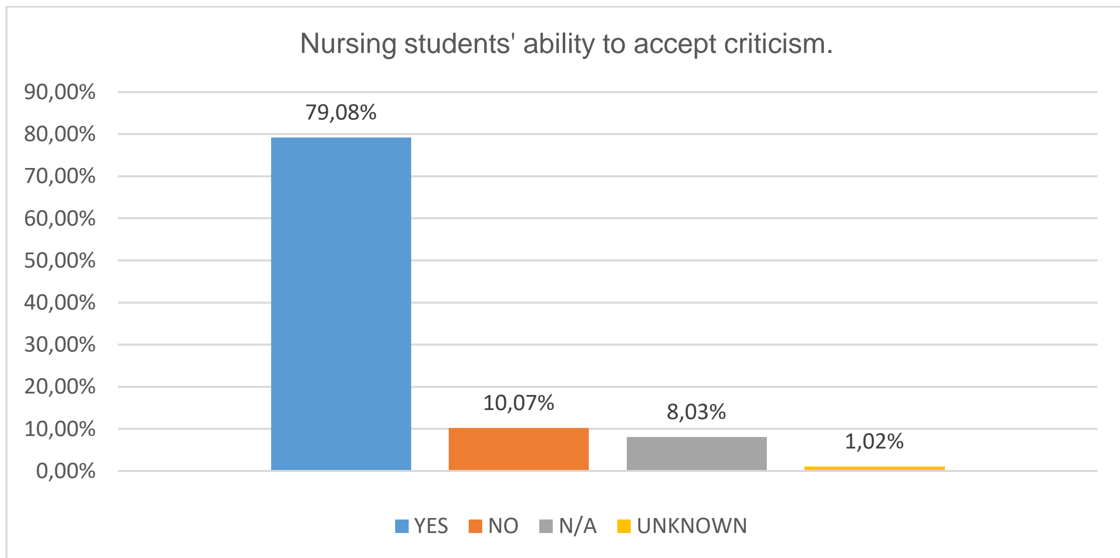

Figure 5.10: Nursing students' ability to accept criticism.

5.3.10. Question 10. A special time is planned for student's clinical presentation as repertoire of what had been learnt.

Figure 5.11 shows that the majority (64.03%, n=54) of participants indicated that a special time was planned for students to present what had been learned to clinical facilitators, whereas a minority 26.02% (n=22) did not think a special time was put aside for this purpose. Eight (n=8 or 8.035%) stated it was not applicable and one (n=1 or 1.025%) did not answer the question.

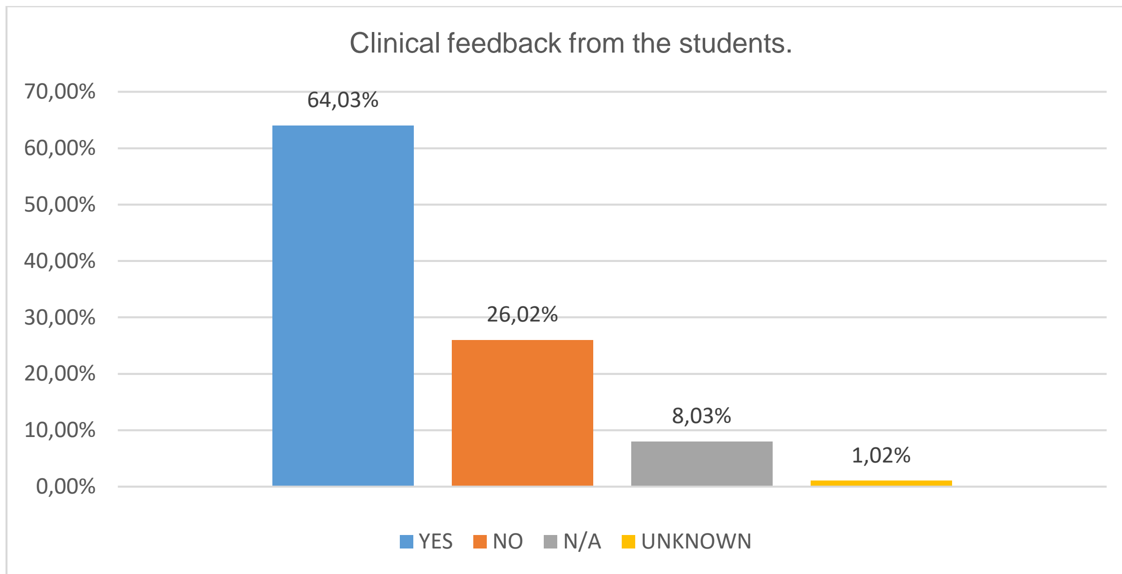

Figure 5.11: Clinical feedback from the students.

5.3.11. Question 11. The clinical facilitators usually dominate the debriefing sessions.

Figure 5.12 shows that the majority of participants (48.08%, n=41) felt that most of the clinical facilitators dominated the debriefing sessions with little time for contribution from the students. 40.05% (n=34) felt the facilitators were not dominant, 7.01% (n=6) said it was not applicable and 3.06% (n=3) did not answer to the question.

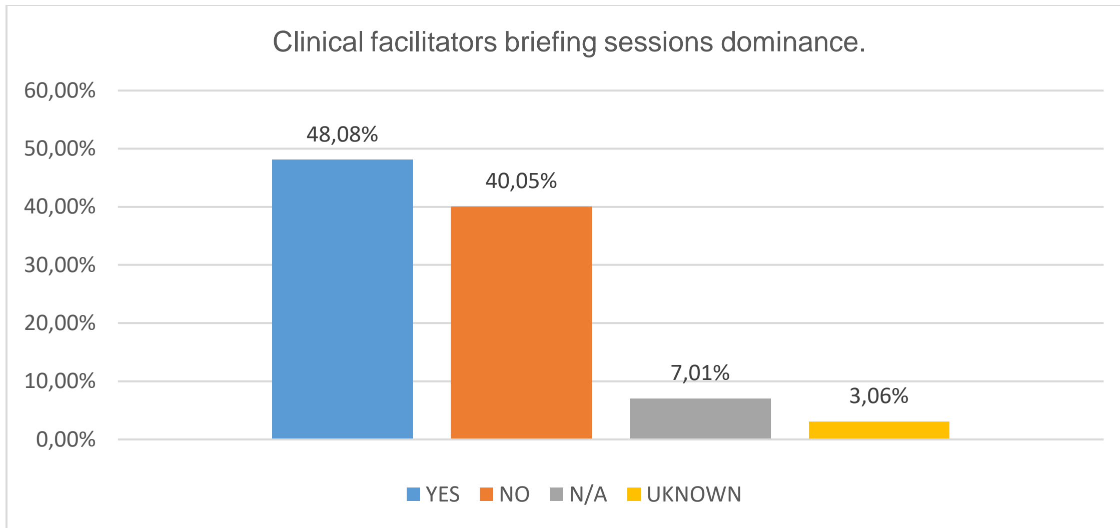

Figure 5.12: Clinical facilitators briefing sessions dominance.

5.3.12. Question 12. The clinical facilitators were unfriendly and inconsiderate towards me.

This question was reversed to make a positive statement (The clinical facilitators were friendly and considerate towards me) and the responses reversed before the analysis. Figure 5.13 shows that the majority (77.04%, n=65) of participants described the attitudes of the clinical facilitators as friendly and considerate. A minority 13.01% (n=11) fets they were not and 9.05% (n=8) stated it was not applicable.

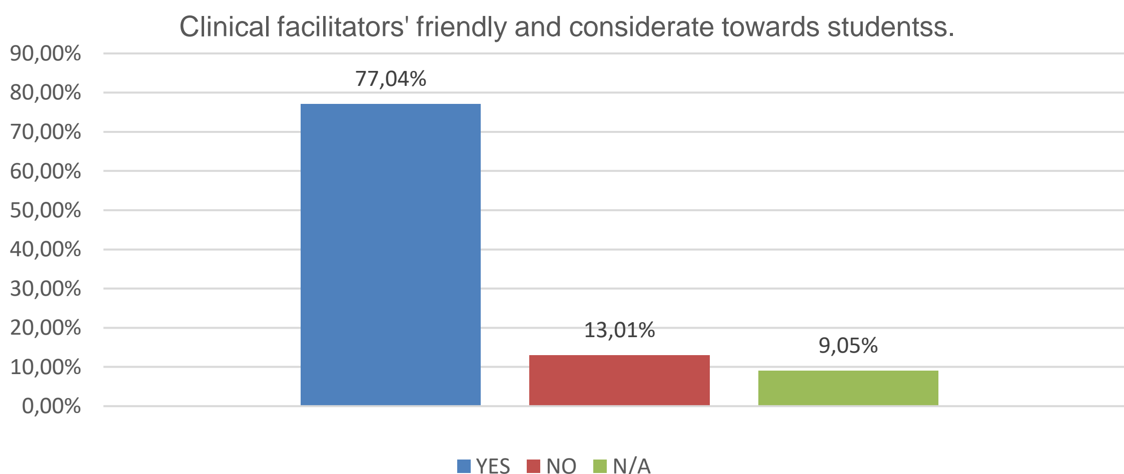

Figure 5.13: Clinical facilitators’ friendly and considerate towards students.

5.3.13. Question 13. The clinical facilitators seldom go around the ward to talk to the students.

This question was reversed to make a positive statement (The clinical facilitators often go round the ward to talk to the students) and the responses reversed before analysis. Figure 5.14 shows that majority (56.00%, n=47)) of participants stated that the clinical facilitators did go around the ward to speak with the students, a minority 34.05% (n=29) felt they seldom went round for supervision, and 9.05% (n=8) stated it was not applicable.

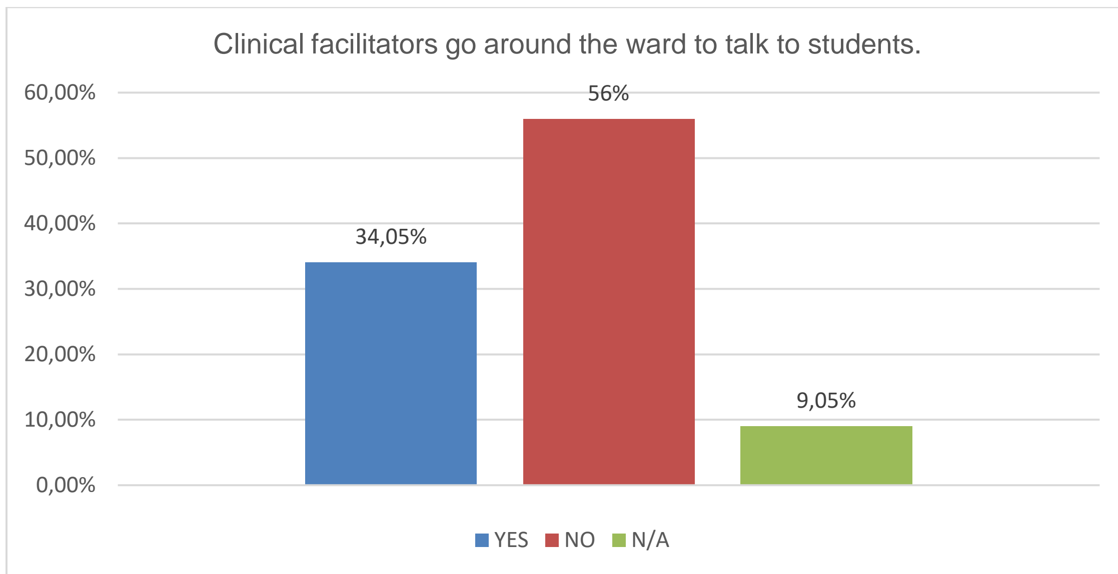

Figure 5.14: Clinical facilitators go around the ward to talk to students.

5.3.14. Question 14. I usually have a sense of satisfaction after my shift that I have learned to assist a patient.

Figure 5.15 shows that the majority (79.08%, n=67) of participants had a sense of satisfaction after each day's activity, a minority 10.07% (n=9) did not and 9.05% n=8) stated it was not applicable.

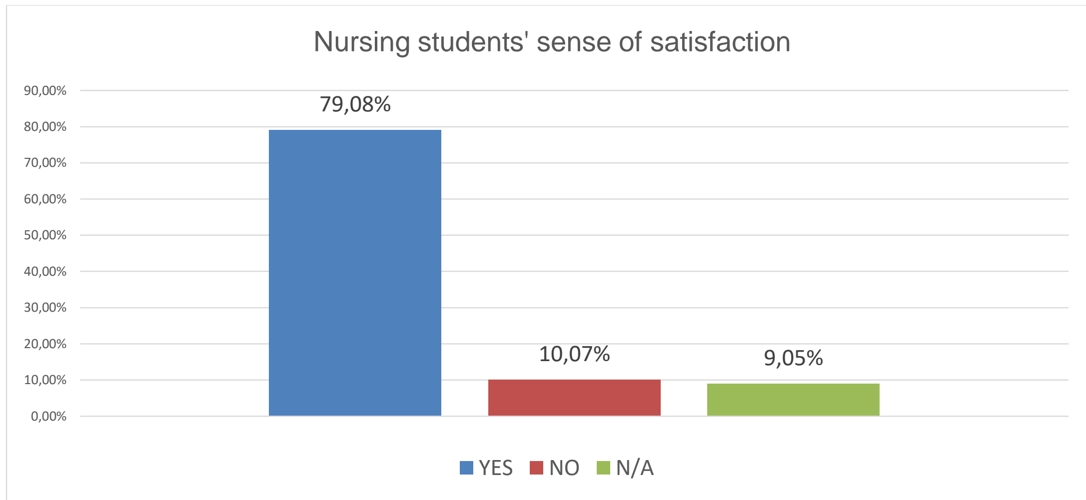

Figure 5.15: Nursing students' sense of satisfaction.

5.3.15. Question 15. The university has enough equipment and material resources for demonstration of clinical skills than we experienced on the ward.

Figure 5.16 shows that the majority (61.09%, n=52) of participants believed they had enough equipment and material resources in the school, a minority 29.08% (n=25) felt they did not and 7.01% (n=6) stated it was not applicable. One participant did not answer the question.

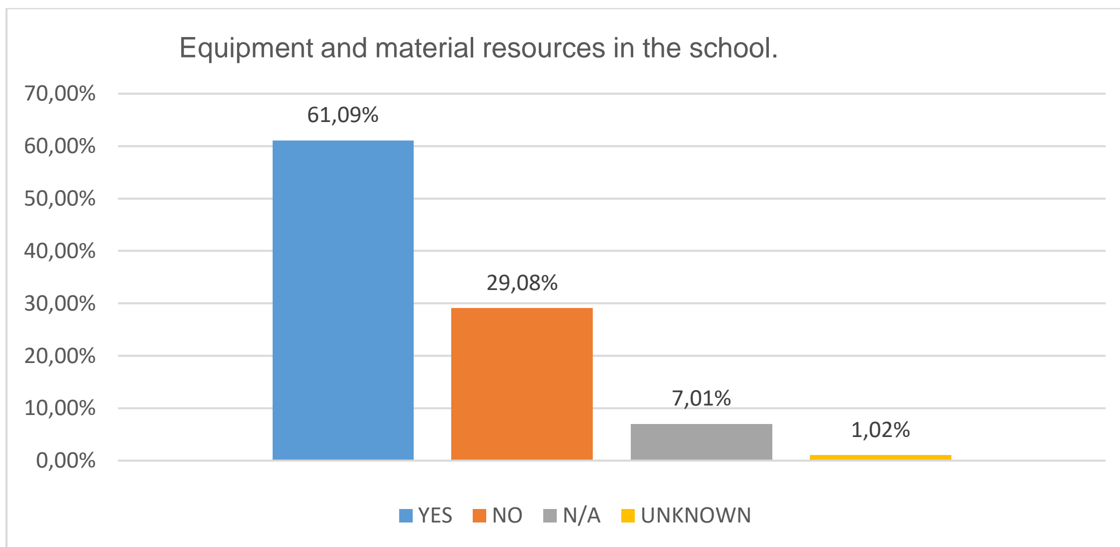

Figure 5.16: Equipment and material resources in the school.

5.3.16. Question 16. The university has enough space for clinical teaching and learning activities.

Figure 5.17 shows that the majority (60.07%, n=51) of participants felt their institution environment has enough space for clinical teaching and learning activities, a minority 31.00% (n=26) did not and 8.03% (n=7) stated it was not applicable.

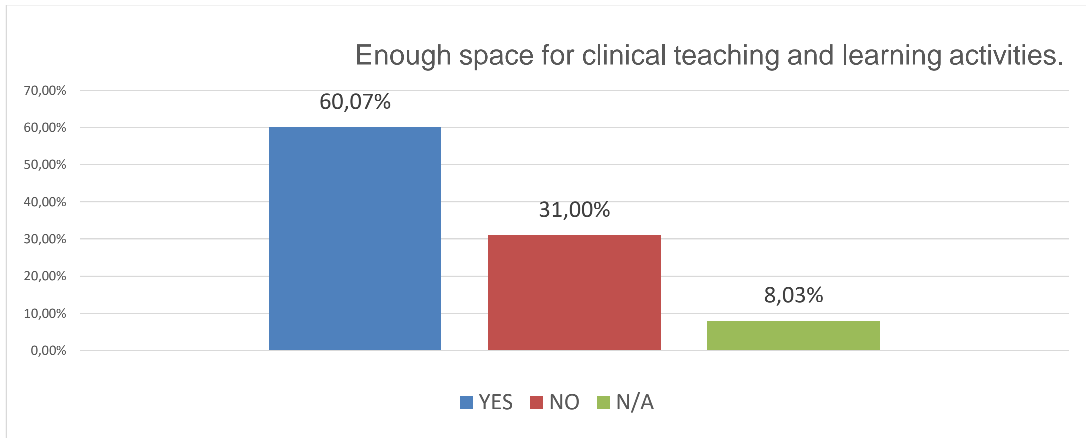

Figure 5.17: Enough space for clinical teaching and learning activities.

5.3.17. Question 17. The clinical placement was always boring and like a waste of time to me.

This question was reversed to make a positive statement (The clinical placement was always interesting and not a waste of time to me) and the responses reversed before analysis. Figure 5.18 shows that the majority (82.01%, n=69) of participants felt their clinical placement was an interesting place for learning, a minority 10.07% (n=9) felt bored and 7.01% (n=6) stated it was not applicable.

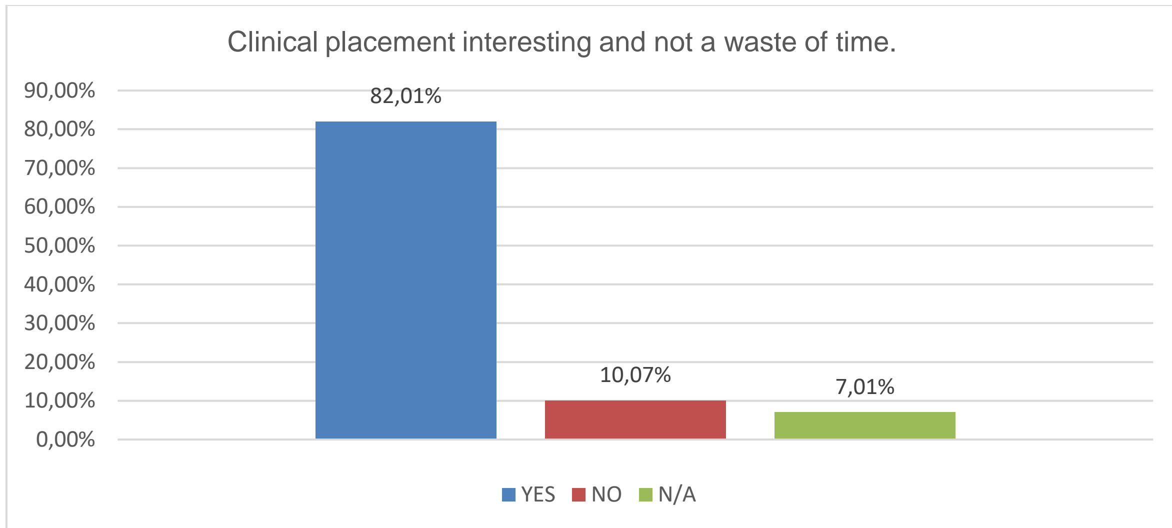

Figure 5.18: Clinical placement interesting and not a waste of time.

5.3.18. Question 18. I enjoy going to my clinical placement because of the conducive environment.

Figure 5.19 shows that the majority (69.09%, n=58) of participants felt the clinical placement environment was conducive, a minority 16.07% (n=14) felt it is not and 14.03% (n=12) stated it was not applicable.

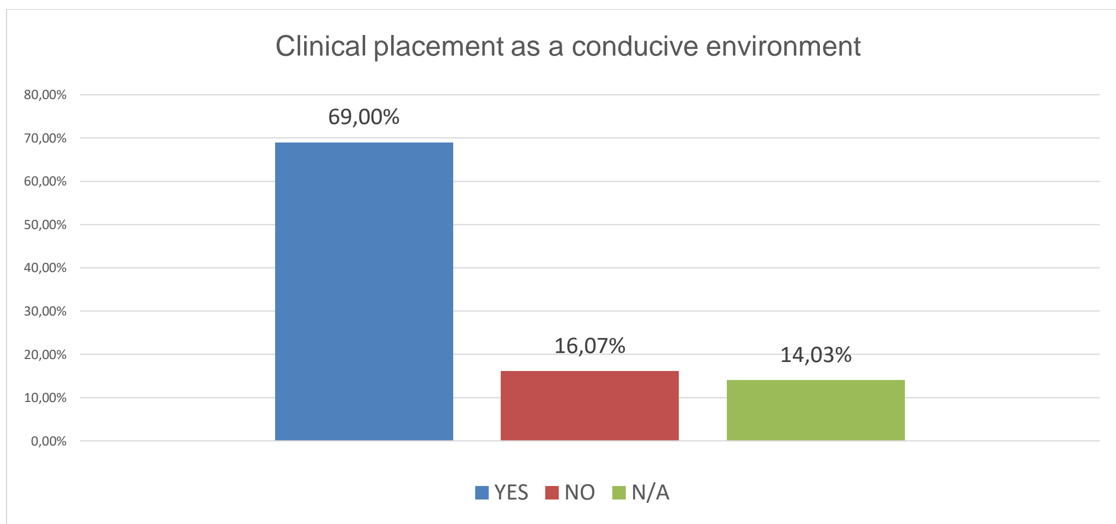

Figure 5.19: Clinical placement as a conducive environment.

5.3.19. Question 19. I was dissatisfied with my clinical experience.

This question was reversed to make a positive statement (I was satisfied with my clinical experience) and the responses reversed before analysis. Figure 5.20 shows that a majority 72.06% (n=61) of the participants felt satisfied with their clinical experience, a minority 20.02% (n=20) expressed their dissatisfaction about the clinical experience, 4.08% (n=4) stated it was not applicable and 2.04% (n=2) did not answer the question.

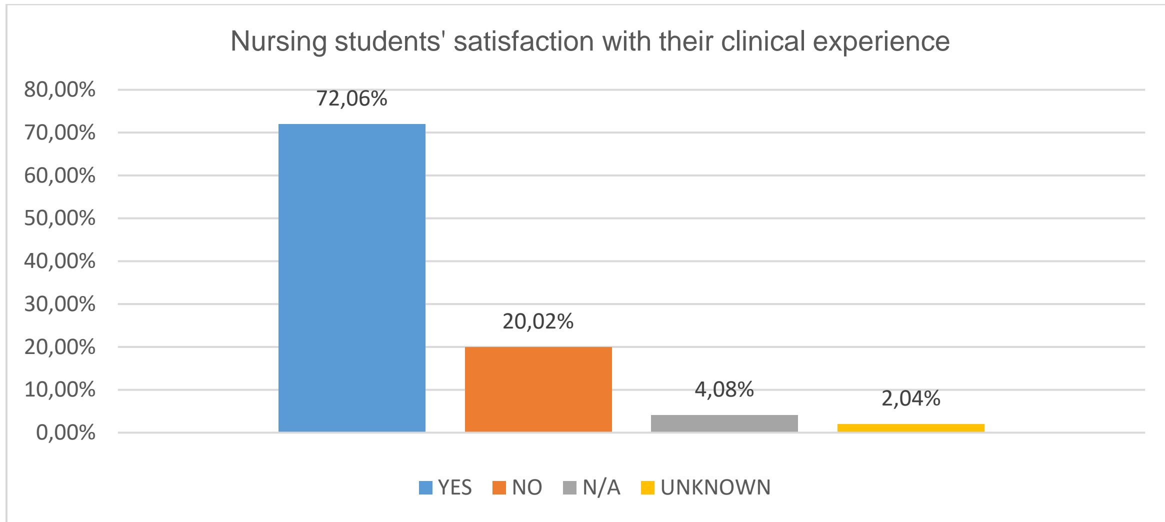

Figure 5.20: Nursing students' satisfaction with their clinical experience.

5.4 Summary of Clinical Placement Questions

Figure 5.21 below presents a summary of how many nursing students agreed to each of the nineteen (19) questions. All the respondents gave answers to thirteen (13) of the questions, the majority of them answered the remaining six (6) questions from which minority did not answer some of the questions at all.

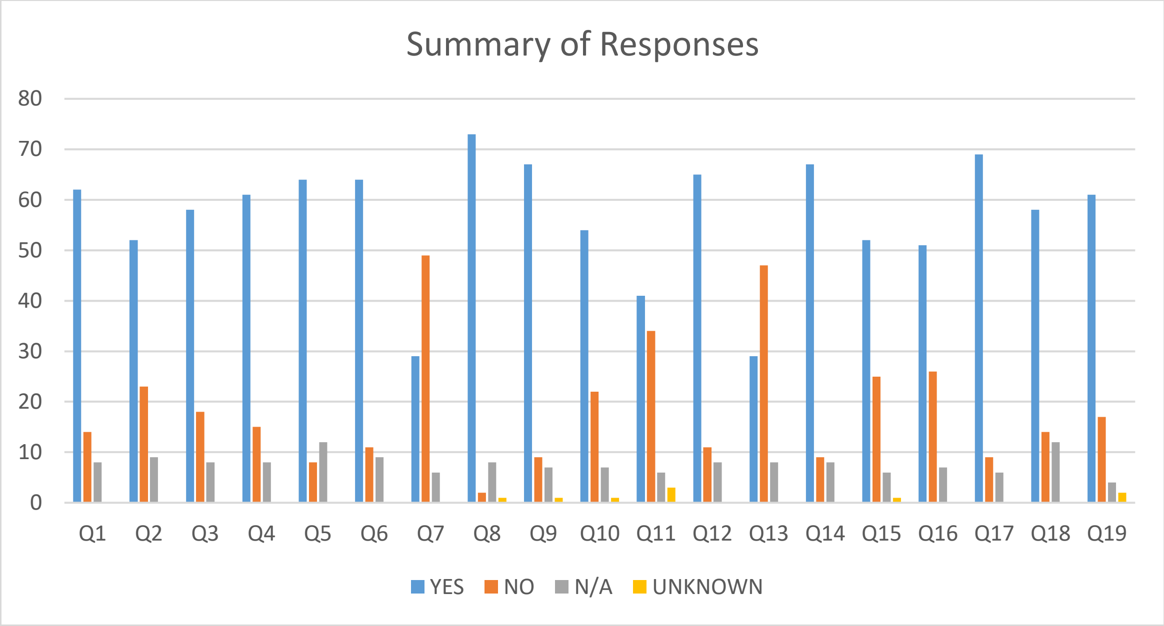

Figure 5.21. Summary of responses

5.5 Analysis of nursing students' comments

In the last question of the survey, students were invited to make comments should they have expressed any dissatisfaction with the clinical environment, and to make suggestions for improvement.

The comments were subjected to a content analysis. Two themes emerged during this data analysis process namely; 1. Positive practice environment and 2. Clinical supervision and four categories as illustrated in table 5.5 below.

Table 5.5. Themes and categories from qualitative data in students' survey.

Themes	Categories
1.Positive practice environment	1.1. Structure 1.2. Resources

Themes	**Categories**
2. Clinical supervision	2.1. Staffing 2.2. Communication.

Table 5.5 shows the reasons given by the nursing students for their dissatisfaction in the service setting and clinical experiences or suggestions made in this regard. The reasons given were summarized as two themes: 1. Positive practice environment and 2. Clinical supervision with four categories as explained below.

5.5.1 Positive practice environment

Oducado (2020) described positive practice environment as a setting that supports and ensures the health, safety and personal well-being of healthcare givers, quality patient' care and also improves the motivation and productivity of individuals and organizations. He further said such an environment should reflect effective organizational management and be able to assist in professional development and career advancement. It is very important that a clinical learning environment for nursing students be conducive for teaching and learning in order to yield positive results. Two categories emerge from the students' responses.

5.5.1.1 Structure

The structure of a clinical learning environment consists of physical space, psychosocial and interactive factors, organizational culture and teaching and learning components. A shortage of human resources with which an organization struggles can make students feels they are not receiving the needed direction and that they are a burden to members of staff, as one participant said ''*Because instructors sometimes prefer to do work alone I mean by themselves instead if carrying students along*'' (P.73). Another said ''I *didn't learn much (P.81), they felt we were not fit to handle things and other procedures were tagged Doctors procedure'' (P.64).* Students want to feel welcome and accepted by staff who will help them in order to practice confidently and competently and contribute to the work of the clinical facility.

5.5.1.2 Resources

These are equipment, instruments and materials that are available for use at the service setting for teaching nursing and in attending to patients' needs by the members of the healthcare team. It is very important to have this equipment readily available and for it to be constantly maintained for the purpose of nursing students' learning and for care of patients. The participants complained that there are not enough for their use, this is confirmed by participants: ''*there was not enough equipment to learn'' (P.45 and P.53).*

The participants gave the following reasons for their dissatisfaction in their clinical learning environment: they were scarcely exposed to practical tools and practice (P.4, P.10 and P.11), performing the same procedures all over again (P.25), too many students posted to the wards under the supervision of few clinical facilitators (P.63), little equipment (P.4), lack of confidence in performing some procedures and the feeling that students cannot handle some procedures adequately as well as focusing more on patients than the students (P.2).

5.5.2 Clinical supervision

Ozga et al, describe clinical supervision as a formal process of professional support for nursing students through mentoring from their senior professional colleagues and other members of the healthcare team, with the aim to help them develop confidence and competency while ensuring safe and adequate care for the patients (Ozga et al. 2020). Clinical facilitators are often employed on a contract basis and need to balance work and family obligations, which are separate from clinical learning environment. Other healthcare givers, who are responsible for patients' care and safety, should not see these students as an additional burden on them but rather an opportunity to develop them clinically for their future roles. Two categories emerged from the students' responses.

5.5.2.1 Staffing

The availability of a sizeable number of qualified healthcare givers is very important in any clinical learning environment for the students to be mentored effectively and efficiently. The proposed model for clinical training and nursing education for Republic of South Africa states that: ''It is recommended that there should be a ratio of 1 Clinical Preceptor for every 15 - 20 students (with at least 4 sessions of 30 minutes per student per month) based on the number of students in clinical practice at the time''. The purpose of clinical supervision is to support, help

with critical thinking, link students up with a senior person in the unit to take training further, and not primarily to do assessments'' (Nes 2012).

The participants expressed concern about this aspect. One of the participants said: ''*There wasn't enough exposure, for example, there could be 15 students to a patient, it is easy to lose interest when you have to fight to see, learn and perform a procedure*'' (P.48). In the service setting, the clinical facilitators do not have enough time for sessions for each student under their supervision, which results in a struggle for participants to get guidance before performing any procedure.

5.5.2.2 Communication

Communication refers to interaction among members of the healthcare team within the service setting, the nursing students and their professional colleagues. It is very important that information flows regularly in two ways between the communicators and the persons receiving it for smoother running of a clinical learning environment so as to give the students a sense of belonging in their learning environment. This was reflected by a participant "*There should be improvement in areas of communication and equipment and more space learn" (P.11).*

Other recommendations by the participants were: provision of equipment, materials and practical tools be taken as a priority at the service setting (P.3, P.45, and P. 54), nursing students should be allowed to spend more time on their clinical postings and distributed to another ward for more experiences (P.43), there should be strict supervision (P.67), students should be made to really understand and perform procedures in the hospital (P.81), clinical postings should be more adventurous and educating (P.25), communication among the healthcare team members should be improved (P.11), there should be assessment of the University facilities in order to fish out the needed equipment/instruments (P.84) and clinical assessment be done often before leaving the service setting (P.19)

5.6 Discussion of Findings

The results of the survey indicated that most participants were satisfied with most aspects of the quality of the clinical learning environment and yet the comments made gave a less favourable evaluation. Comments were optional and it is possible that participants who are less satisfied were more likely to make comments.

The aspects that less than half of the participants were satisfied with were question 7 (relating to enough equipment in the hospital), 11 (relating to the role of the clinical facilitators in debriefing sessions) and 13 (the presence of the clinical facilitators in the clinical facilities) with 15 (relating to simulation and equipment in the university) and 16 (space for clinical teaching in the university) being borderline.

The questions with the highest scores (>60% of participants agreeing) were 1 (Receipt of a clinical placement manual), 4 (communication between students and facilitators), 5 (communication between clinical facilitators and other staff in the clinical facility), 6 (Facilities supportive of professional growth, and skills development of students), 8 (students' willingness to learn), 9 (students' willingness to receive constructive criticism), 12 (Clinical facilitators friendliness and considerateness), 14 (satisfaction experienced by students after a shift) and (clinical facility stimulating).

Question 17 and 19 (overall satisfaction with clinical experience were found to be unreliable so these results should be viewed with caution.

The ''not applicable'' responses indicated that participants did not understand what was being asked or were unsure of what to answer. It is difficult to believe they really believed that the aspects enquired about were not relevant. In hindsight, the researcher believes she should have phrased the ''not applicable'' aspect ''not sure'' which would probably have given more useful results.

Both quantitative results and the qualitative results indicate problems with resources, human, space and equipment and supplies, whereas the processes of clinical supervision were generally received according to the quantitative results, but less so with the qualitative results. Decorte et al. (2019) address the challenges related to providing students an opportunity to make general comments. While the intention is to "redress the power balance between researchers and participants" it is recognized that respondents may want to give details about issues not included in the survey which provides challenges for analysis, especially as the context of the responses is usually not known. For example, students may have been placed in a unit where they were unhappy at the time of the survey so this would colour their responses which cannot be considered as representative of their general feelings about the CLE.

Several authors (Papastavrou et al., 2016b; Gurkova et al., 2016; and Hansen and Bratt, 2015), found that physical structures, the attitudes of unit managers, leadership styles, the mentor-

mentee supervision relationship, and frequent clinical meetings can promote nursing students' satisfaction during clinical practice. Confidence, communication skills, performance and knowledge of nursing students can be improved when being exposed to a conducive clinical environment and will assist their development as future health professionals(Eun Ko and Hye 2017, Briscoe, MacKay, and Harding 2017).

The factors which cause anxiety in the clinical areas, all of which are in relation to non-conducive environment. These include discrimination, abandonment, poor access to practical tools and limited opportunity from clinical senior nursing colleagues, instructors and other members of the health team (Dinmohammadi, Jalali, and Peyrovi 2016, Palese et al. 2018). Nursing students were unhappy with their clinical learning environment based on factors that prevent them from attaining their skills, including indifferent attitudes of experienced nursing staff, insufficient equipment, staffing and non-availability of mentors (Lukupa 2017).

Mokadem and Ibraheem (2017) found that what made a student satisfied with the CLE was influenced by the degree of enjoyment they experienced which was, in turn brought about by the feeling of achieving advancement towards their learning outcomes in the clinical area. This achievement is assisted by having good clinical supervision and (Pitkanen et al. 2018) found that the students' relationship with his/her supervisor had a significant effect on the outcomes of the students' experiences. The students in the study were relatively satisfied with their supervisors except for the fact that they did not believe they spent enough time talking to them. This does lead one to wonder about the quality of supervision as it is difficult to image how this can occur without one-on-one contact.

Conclusion

In this chapter the results of the student survey have been reported on and discussed. Chapter four reported on and discussed the results of the equipment audit. This study is guided by the Model for Clinical Nursing education and Training in South Africa as shown in Chapter one of this study. Thus far, in this study, the support from the service setting (using quality audits as a proxy) and the position of the student for role-taking practice (the student survey) have been addressed. The following chapter reports on and discusses the findings of the interviews with the clinical facilitators, which was designed to determine the support from the nursing education institution.

Chapter 6 - FINDINGS OF PHASE 3 OF THE STUDY – SEMI-STRUCTURED INTERVIEWS WITH CLINICAL FACILITATORS

6.1 Introduction

In this chapter, the findings from phase 3 of the study are presented. The objective of this phase was to explore the perceptions of the clinical facilitators of the clinical learning environment.

As explained in chapter three, a total of ten (10) clinical facilitators were interviewed using the interview guide which can be found in Annexure G. The mean years of experience of the ten facilitators was 8.8 years with a standard deviation of 4.2. The years of experience ranged from four (4) to fifteen (15) years.

The clinical facilitators in this study are registered professional nurses who have experience in the clinical environment, and who are employed to work in the clinical environment providing patient care. As part of their work, they assist in guiding and teaching nursing students, specifically related to assisting the students to gain competence in clinical procedures and competency in patient care.

6.2 Presentation of Themes and Categories

Two themes, namely, responsibilities of clinical facilitators and the context of clinical learning constraints were identified. Each of these had three or more sub-categories as shown in table 6.1 below.

Table 6.1. Analysis of Clinical Facilitators' Responses

Themes	**Categories**
1. Role of Clinical facilitators	1.1. Responsibilities to nursing students 1.2. Opportunities
2. Context of clinical learning	2.1. Compliance to regulations and policies 2.2. Communication 2.3. Nursing students' attitudes

	2.4 Human and material resources

6.2.1 The role of Clinical Facilitators

Needham et al. (2016) describe clinical facilitation as training of nursing students by registered nurses experienced in the current nursing practices within the hospital setting (Needham, McMurray, and Shaban 2016). Supporting student learning in the academic environment with effective clinical facilitation is integral to their ability to understand and translate the theoretical components of their program.

6.2.1.1 Responsibilities towards nursing students

The clinical facilitators viewed their role as important and were proud of what they were able to do, not only for the individual students, but collectively for the profession as they recognized their role related to the preparation of the students as registered nurses of the future.

CF4 illustrated this point well by saying, *"I view my role as a clinical facilitator to be one that can be likened to a "driver" who engages in moving the vehicle of a profession forward*" whereas CF2 said. *"(I) watch them transform from fear-ridden students to confident registered nurses and I get positive feedback from my students on the level of assistance rendered*.''

CF6 views her role as a "*privilege of being part of the body that teaches and impacts students with trending nursing knowledge and practice, hence sustaining high standard nursing practice*''.

The descriptions the clinical facilitators gave of their roles were similar and included orientating students to the clinical area, clinical teaching, monitoring, motivating and guiding students.

CF5 spoke of "imputing knowledge and moulding the life of the future nurse''. CF2 said, *"(it is giving support to those of the students who require support, to provide education to them and ensure their prompt attendance at clinical meeting and presentations*.'' CF3 reiterated that her "*role is to ensure students are monitored during procedures according to their curriculum and what was written in their proficiency manual*.'' CF7 said: '*'my role is to guide, teach, train and motivates the students while on postings*''.

CF9 said: "*I am to guide the students during clinical posting to learn the practical aspect of their studies after theoretical exposure in the school*'' and CF10 commented: "*my role is to orientate, appraise the knowledge of the students and guide them in carrying out scheduled procedures*''.

CF8 added an additional dimension which, apart from demonstrating and guiding students, was to *“ensure availability of needed instruments where possible or improvise to teach them.”*

Needham et al. (2016) found that the clinical facilitator’s responsibilities to students are in three areas; they assist in preparing them for clinical experience, facilitate the clinical learning experience and evaluation of the learning experience in order to clarify whether the students have fulfilled the unit objectives. Only the aspects of facilitating the clinical learning experience were mentioned by the clinical facilitators. It may be because they do not play a role in preparing the students for entry into the clinical area or evaluation of the student as these aspects are often dealt with by the NEI. The role of support was mentioned by the clinical facilitators, which was found to be one of the best practices for clinical facilitation (Muthathi, Thurling, and Armstrong 2017).

6.2.1.2 Opportunities

While the clinical facilitators recognized their responsibilities towards the students, they talked about the opportunities they themselves had for personal and professional growth stemming from their role as clinical facilitator, even though not all the experiences had been pleasant ones. CF2 was one of the facilitators who had learned from difficult situations. She said, “*It has also given me the opportunity and the skill to deal with challenging behaviour. I have been able to gather the necessary skills to be able to deal with all those challenging behaviours emanating from some of my students and also it has sharpened my organization skills when hosting lectures and workshops.”*

CF1 indicated that her experiences as a clinical facilitator had helped her deal with difficult people. “*I will have to interact with the people in charge there and if those people are proving recalcitrant or are they are not welcoming me*.”

CF4 indicated that her role as a clinical facilitator had enabled her to access quality education in that it had given her the motivation to search for regular knowledge updates and it provided her with “(*a) conducive teaching and learning environment and personal teaching materials”*.

CF5 and CF6 also indicated such opportunities were provided for them and CF9 said it “*affords me (the) opportunity to read more, opens me up to research and to sustain high standard of nursing practice*.”

(Ryan and McAllister 2019) found that clinical facilitators derive personal benefit or encounter rewards as a result of their responsibilities. (Nes 2012) lends support to the view expressed that

although it is the responsibility of clinical facilitators to promote the involvement of ward staff in the teaching of students, it is not always easy as ward staff are sometimes not cooperative. (Needham et al.2016) states that clinical facilitators require educational preparation, highly developed communication and networking skills in order to provide the best clinical experience for students.

6.2.2 The context of clinical learning

The clinical facilitators identified four (4) aspects that impact on the quality of clinical facilitation in the nursing units. They identified many challenges, but many seemed to be attempting to fulfil their roles well despite the constraints.

6.2.2.1 Compliance to regulations and policies

In this category, the rules and regulations of both the service setting and the statutory council (NMCN) that impact on the quality of the clinical environment where the students are placed were identified. The statutory body lays down minimum requirements relating to training and equipment, material and human resources which should be provided by the NEI and the service setting before full accreditation of nursing program can be granted. Despite this there were clearly some tensions related to the provision of such resources that the clinical facilitators believe impacts on the quality of clinical learning environment.

One of the requirements relates to the record of instruction of the students, but difficulties arise in this regard as explained by CF8 who said ''*One of the requirements of the NMCN is that each student should have his or her record of instruction (RIN) but most times it's not available at record time which made it difficult for students to have their procedures recorded and signed by the actual nurse practitioner that supervise them*''.

CF3 confirmed that adherence to the policy on the keeping of student records is difficult by saying, ''*In the recent times record sheets are scarce in the hospital, we are improvising to record necessary details for our patients to quality clinical supervision because students won't see what they are supposed to see to internalize their learning process*''.

With regard to equipment, shortages exist. CF1 explained, "*some equipment are not available so as clinical instructors we improvise a lot and let the students know the ideal when they meet such situation in future*''.

It was stated that while equipment was not available for students during their training, it was made available specifically for the purpose of the examinations. This was confirmed by CF1 and CF3 *"Most times it's only when students want to write clinical practical examinations that equipment/ instruments not available in the hospital are brought down from the school to the hospital and are returned after the examination"*

Another frustration was that the curriculum, which is for all intents and purposes a policy, and set by the statutory council, was unrealistic in the eyes of the clinical facilitators. CF2 said "*for instance we have content overload curricular. The curriculum is overloaded and as it is presently in Nigeria it seems we are having dearth of experts especially in training nursing students.''*

Curriculum is defined as "the planned and unplanned experiences which learners receive in the process of their formal or semi-formal education for the purpose of becoming rounded persons who can make meaningful contributions to the betterment of their society and global environment.'' (Modebelu 2015). The formal curriculum is strongly affected by the requirements of the regulatory body (NMCN), but according to Modebelu's definition, there are informal or unplanned aspects to it too. As with the other issues in this category, there seems to be a gap between what is planned and what is feasible, and it is essential that program planners (NEI) negotiate with the administrators of the service settings (healthcare institution) to find suitable clinical practicum sites and resolve some of the tensions that arise from trying to implement a curriculum in clinical areas that are experiencing constraints making it impossible to do what is required.

Policies are guidelines for procedures and help people in decision making. What is important for management is to understand how policies can support effective leadership (Aarabi et al. 2014). It would seem from the comments of the clinical facilitators that the policies are in place from both the statutory council and the institution, but they are not adhered to. This could indicate that NEIs who are granted accreditation do not maintain compliance to the standards after accreditation and also implies that there is no follow up on the part of the statutory council. Nursing education institutions apply for accreditation but are entirely dependent on the clinical facilities where they place their students to provide many of the resources needed for clinical training. The human and material resources needed for training the nursing students are dependent on the budget of the service settings, which creates a tension in resource constrained environments when patient care clearly needs to take precedence.

6.2.2.2 Communication

There were two aspects relating to communication raised by the clinical facilitators that they felt impacted on the quality of clinical facilitation. One was the communication between the NEI and the clinical facility where students were placed (CF5) and the other related to written communication (CF2 and CF6). CF2 said, "*inaccurate documentation as a result of workload on the part of the staff nurses and midwives on the wards (result in an) additional assignment for the clinical facilitators*." The implication is that clinical facilitators have to do the work of the ward staff in respect of the record keeping in order to teach the students the correct practices.

The problem of a lack of communication between the NEI and the clinical facility has been mentioned by several authors. A problem that arises in nursing education is that the nursing education institution has to meet the standards of the statutory body, which includes standards regarding the clinical learning facilities, but the NEI has limited or no jurisdiction over the supply and maintenance of supplies and equipment or even the human resources who oversee the students' clinical experience. Clearly good collaboration goes some way to resolving some of these problems, but unless the NEI is in a position to provide the additional finances and resources required to provide a good leaning experience, this will not completely resolve the issue. This in turn leads to tension between the clinical facility and the NEI and dissatisfaction amongst the students (de Swardt, 2019; (Needham et al. 2016); Nes, 2012).

One of the responsibilities of clinical facilitators is to maintain a close working relationship with the healthcare providers and academic staff and act as liaison persons between the service and the NEI (Nes, 2012), but the clinical facilitators indicate that this is difficult.

6.2.2.3 Nursing students' attitudes

The clinical facilitators experience what they perceive as negative attitudes from the students they are allocated to teach. CF4 and CF8 referred generally to their attitude with CF8 saying, "*The nursing students have lackadaisical attitudes towards learning, some absent themselves from clinical posting without proper permission.*" CF4 referred to their attitude as *"nonchalant".*

CF10 confirmed a problem with student absenteeism and CF2 complained that students are "*addicted to social media that turns their minds away from learning maximally*."

CF4 provided an interesting insight into a possible reason for *"negative student attitudes. She said, "The passion of the candidate should be considered before being admitted into nursing colleges. Interest of the student is more important than that of the parents.*"

Several authors identified that the clinical learning environment is not conducive to student nurse learning, which may result in perceived negative attitudes and behaviours of students by the clinical facilitators. These observations emanated from Spain, South Africa and the United Kingdom. the students' participation in ward activities was not based on their individual persons but rather varied depending on the environment in which they were placed at the time including support, or lack of support of the clinical facilitators (Mitchell, 2018; Mathe et al. 2021; Vizcaya-Moreno et al., 2018). A study in the Netherlands concluded that the attitudes of nursing students have recently improved. It is important to improve the context in which the students are placed and provide support which may be easier said than done in a resource constrained environment (Hoeve et al., 2017).

6.2.2.4 Human and material resources

The clinical facilitators confirmed the findings of phase 1 of this study that there is a shortage of equipment and supplies for quality clinical learning. They also raised the issue of human resource shortages. The clinical facilitators are required to share their time between supervising student nurses and caring for patients. This shared responsibility leads to many problems.

CF1 was of the opinion that the ratio of clinical facilitator is inappropriate for quality learning to take place saying, *"(the problem is) the number of students to too few clinical facilitators. The nursing students are too many - at times over 20 per facilitator.''*

CF1 and CF4 were of the opinion that if clinical facilitators were paid for the work of clinical facilitation, which they see as "extra work," would assist but said, *"(the problem is) poor remuneration, but despite this, I do my part. I did not allow it to disturb my impartation of knowledge''.*

With regard to material resources, CF7 said, "*'my suggestion is that basic equipment including consumables and other useful avenues should be made available for students to learn more*'' but did not indicate how this could be realized. CF1 shed some light on the problem by saying, "*'constant repair of obsolete equipment (is needed).*"

CF8 was of the opinion that if the results of this study were to be communicated, action may be taken: *"communicating the outcome of this research study to both the education institution and the service setting*''.

Priority-setting in the health care system can be defined as the process of making decisions on how best an organization can allocate their limited resources (material and human) to improve

the services rendered to patients or members of healthcare team at a given point in time. It is important that the service setting and the NEI collaborate to assist in pooling their resources, where available, for training the nursing students (Norheim et al. 2014).

6.3 Discussion of Findings

This phase of the study presented the assessment of clinical facilitators of the clinical learning environment for nursing students. This was necessary to determine problems and possibilities with a view, at a later stage, to improve the quality of the learning as well as the quality of nursing education in a federal health institution.

The clinical facilitators appreciated the opportunity they had in transferring knowledge to younger generations in their profession through the training support of the service setting, and experiences gained from dealing with the students, which made them develop their own training techniques. This is in line with a Malawian study where clinical facilitators who received the necessary training and support from the service setting and institutions showed positive attitudes in guiding nursing students. They did this by devoting more time to collective supervision that made it possible to acquire the necessary skills in building confidence and competence while rendering effective health care to patients during clinical postings (Phuma-Ngaiyaye et al. 2017b).

The clinical facilitators, however, encountered challenges, which made it difficult for them to provide quality learning for the nursing students in the given environment. (Ekstedt et al.2019) confirmed these challenges in another study where facilitators were found to have inadequate time for supervision, due to the workload on their wards and the need to improvise due to the lack of available materials to meet the learning needs of the students. There was also a lack of recognition by faculty members, the service setting and the nursing education institutions.

In a scoping review of studies conducted on the clinical learning environment. They found that major influences on the quality of the learning environment included, among others, accreditation regulations, curricular interventions, and physical spaces and support services (Gruppen et al. 2018). These findings seem to confirm the findings of this study.

(Nordquist et al. 2019) emphasize the importance of the clinical learning environment saying, "Learning in a clinical context is foundational in the training of health professionals; there is simply no alternative". They also point out that studying the state of the learning environment,

while helpful, is less important than finding solutions to improving it. Some studies did, however, find deficits with regard to the ability of the clinical facilitators to support students in the CLE. Phillips, Duke, and Weerasuriya, (2017) found that clinical facilitators tended to use only low level questioning when supervising students, whereas (Sweet and Broadbent, 2017) found that the most important characteristics and behaviours of clinical facilitators were their availability, approachability and ability to provide feedback to students.

6.4 Conclusion

In this chapter the findings related to phase three of the study, the perceptions of the clinical facilitators, were presented. In the final chapter the findings of the three phases will be consolidated in an attempt to answer the research question: What is the quality of the clinical learning environment in a Federal Health Institution in Nigeria?

In addition, the limitations of the study, recommendations for nursing education, nursing research and nursing practice are also given before a conclusion to the study.

Chapter 7 - CONSOLIDATION OF MAIN FINDINGS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

7.1 Introduction

In this final chapter, the main findings of the three phases of the study are summarised and consolidated in an attempt to answer the research question: “What is the quality of the clinical learning environment in a Federal Health Institution in Nigeria? Limitations of the study are identified and recommendations, including those for nursing practice, nursing education and nursing research, are made.

7.2 Consolidation of the findings

A summary of the main findings in the three phases of the study is shown in table 7.1 below.

Phase 1 – Audit of patient records, equipment and supplies	**Phase 2 – Survey of nursing student’s perceptions**	**Phase 3 – Interviews with Clinical Facilitators**
Provision of equipment and supplies inadequate for quality training	The provision of equipment and supplies is inadequate for quality training	Regulations and policies in place but not feasible to comply
The medical wards scored higher for the presence of protocols and equipment but lower on provision of emergency equipment than surgical wards	There is a lack of clinical equipment and space for demonstrations and practice	Clinical facilitators find role satisfying
The male wards scored lower for both medicine charting and recording compliance than the female wards	The clinical facilitators do not spend sufficient time in the wards with the students	Communication between the NEI and the CFs is not good and written communication is poor

Phase 1 – Audit of patient records, equipment and supplies	Phase 2 – Survey of nursing student's perceptions	Phase 3 – Interviews with Clinical Facilitators
No difference in quality of problem-based records in medical and surgical wards but female wards scored higher compliance	Students and clinical facilitators have positive relationship	Shortages of both human and material resources compromise teaching
The practice of patients having to purchase own medication compromises quality of training as students are not able to observe quality patient care	Students themselves are willing to learn and find patient care satisfying	Student nurses have negative attitudes

It is clear from reviewing the results of phases two and three that the students and the clinical facilitators have differing views on the quality of nursing education in the institution, with both seeing themselves in a positive light and the other in a less positive light. None the less, neither of the groups indicated great unhappiness with the quality of the institution and were in agreement that the equipment and resources are inadequate for quality training. The audit confirmed shortages of equipment and supplies and also indicated that record keeping and the presence of protocols to guide practice were lacking. All these aspects are likely to have a negative impact on quality education of the students as is the absence of some patients' medications due to the policy of them having to purchase their own.

It seems likely that if students and facilitators have never had experience in any context other than the institution in which they are training and working, they will not be aware of what could or should be in place to improve their quality of training. This institution is a low-resourced institution. If it is not possible to improve on resources, an ethical issue arises: if quality training cannot be assured, should training be suspended until such time as it can be assured? This would result in even further nursing shortages than already exist.

There are, however, some aspects that could be improved while efforts are made to address the financial and equipment shortages. The development and implementation of protocols in themselves do not cost money, although the issue of whether all the aspects of the protocol can be met may remain a challenge. The shortage of printed nursing records could be averted by

using plain A4 paper provided a template was available to students and staff on the format to be followed when making entries into the records.

While it is recognized that setting up a simulation centre is costly, the relative cost-effectivity of doing this should be considered as it would be possible to consolidate equipment and supplies to at least give students experience of how procedures should be conducted. Then additional simulation experiences need to be developed to assist students to decide how to adapt text-book procedures to real life based on principles rather than procedures.

The Nursing and Midwifery Council was not included in this study, but it became clear that the statutory body sets rules, regulations and policies that are not always feasible. Collaboration is needed to set standards based on best equivalent practice rather than international best practice that is not feasible for this context.

The audit was conducted using a South African audit tool which was not applicable in all aspects as practices differ in Nigeria. While it could be debated that the South African standards, which are evidence based and geared to providing quality patient care, should be met, there is a need to review the tool for the Nigerian context.

This study was conducted using the Clinical Training (CT) model of the Republic of South Africa (NES, 2012) depicted below as a conceptual framework.

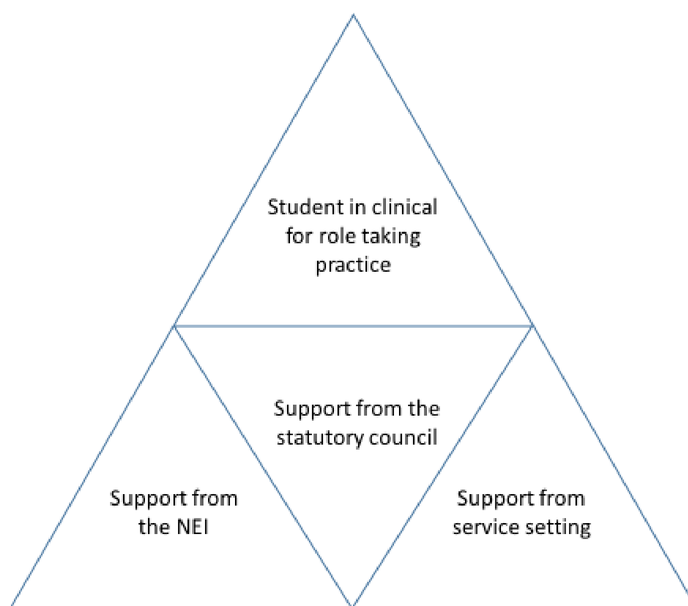

Figure 1.1: Components of the model for clinical nursing education and training (NES, 2012)

In reviewing the findings in relation to the conceptual framework, the bottom three triangles are meant to support students. The service setting in the study setting provides not only the equipment and supplies, but also the clinical facilitators and the patients who are so necessary for students to gain meaningful clinical experience. The NEI, on the other hand, provides students with their theoretical teaching and are responsible for providing simulation opportunities, as well as coordinating the training of students. Lecturers from the NEI have a responsibility to assist students to apply theory to practice. The statutory council provides the policy framework in which nursing education takes place and accredits learning facilities. The findings of this study show that although the individual stakeholders are trying to fulfil their individual roles, the biggest breakdown appears to be in collaboration between the three, resulting in unrealistic expectations or requirements and frustration amongst students and clinical facilitators, and possibly nurse educators too.

McSherry et al (2015) suggested that the stakeholders such as researchers, statutory bodies and educators are able to identify areas that need constant improvement and adjustment in training students and that solutions revolve around attending to the security needs of the students through constant supervision and monitoring.

While a one-word answer cannot be given to the research question, “What is the quality of the clinical learning environment in a Federal Health Institution in Nigeria?” the findings indicate that there is a great deal of room for improvement.

7.3 Limitations

The Covid-19 pandemic resulted in the researcher having to adapt her data collection processes. As she was not able to have face to face contact with the students, she used Google forms to collect data electronically. While this was a limitation, the return rate of the student’s forms was remarkably high.

Similarly, data collection from clinical facilitators was affected. While it was possible to schedule face-to-face interviews, it was necessary to observe social distancing and clinical facilitators rescheduled the interviews multiple times due to constantly changing clinical commitments.

The study was limited to one study site and the results can therefore not be generalized.

There is a possibility that the data obtained from students was influenced by social desirability bias, despite students being assured their responses were anonymous.

In amending the survey tool the researcher’s bias may have influenced the questions, although the reliability and validity of the questionnaire was established, and most questions were found to be reliable.

The use of an open-ended section for students to make generalized comments may have caused some bias as the context of the comments was not evident.

On reflection, it may have been wise to include an objective relating to the perceptions of lecturers from the NEI. This was not possible due to the limited scope of a Master’s dissertation but should be followed up in later research.

7.4 Recommendations

Based on the findings, summary and conclusion of the study on the quality of a clinical learning environment for nursing students in a federal health institution in Nigeria, the recommendations below are made.

7.4.1 General recommendations

1. There in need for collaboration between the service setting and the nursing education institution regarding the supply of resources needed by the nursing students and their clinical facilitators.

2. Materials, equipment/instruments, stock and human resources should be consolidated into a clinical teaching laboratory/simulation laboratory.

3. Funding to sponsor the acquisition of further supplies and equipment should be sought by involving the heads of parastatals in the ministry of health and education philanthropists in the community.

7.4.2 Nursing Practice

4. A committee should be constituted for the development and implementation of protocols/ guidelines. These protocols should be publicised to create awareness, remind members of the healthcare team of their responsibilities and to help students to learn better.

5. In an effort to address the issue of obsolete and damaged equipment/instruments, the biomedical department should be strengthened in terms of human and financial resources to ensure regular maintenance and repair of equipment.

7.4.3 The Statutory Body

6. The statutory body could improve on the supervision and control of service setting and nursing education institutions as well as review the 'content overload' of the curriculum.

7. The federal ministry of health could be represented during accreditation of the service setting in order to be aware of the demands of the statutory body on the service setting. This would enable them to budget for the requirements for nurses training.

7.4.4 Nursing Education

8. A policy regarding the use of electronic devices during clinical practice hours within the service setting should be developed.

9. A committee consisting of representatives of the student body, the NEI and the clinical facilitators should be set up to coordinate placements and monitor opportunities and challenges relating to clinical learning.

10. The nursing education institution and service setting need to have a clear plan to ensure adequate human and material resources for teaching and assessment of students and to improve the training of clinical staff to give the necessary support to students.

11. The workload of the clinical facilitators needs to be adjusted to provide more guidance, which will help the students to learn more and thereby provide high quality patient care that improves the healthcare system of the populace.

12. The possibility of the NEI employing preceptors to support the clinical facilitators should be investigated.

7.4.5 Nursing research

13. A follow up study including the statutory council and the NEI should be done to ensure greater representatives of the results. It should also be conducted in additional clinical sites.

14. An audit tool relevant to the Nigerian context should be developed prior to a further study being conducted.

15. The issue of whether armbands and nursing process records are really necessary to ensure a quality CLE needs further investigation.

7.5 Conclusion

The focus of this study was to ascertain the quality of the clinical learning facilities of the selected institution. One aspect involved monitoring against the standard of the available equipment and supplies and human resources in the service setting that contribute to the education, welfare and security of nursing students during clinical postings. Although a majority of nursing students described their clinical learning environment as satisfactory, they had many challenges that impeded the quality of their learning. The findings show that the factors that students view as positive relate mainly to the support provided by the learning facility and the friendly nature of the clinical facilitators who on one hand communicate well but do not spend enough time talking to students. The findings show some deficits in what is needed to achieve a quality learning environment for these students including the lack of resources. This will impact negatively on their ability to achieve clinical competencies, so solutions need to be found to provide cost-effective, quality clinical learning.

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ANNEXURE A

Records Checklists – Medical

Code **R1**

Possib le Score 100

Date completed		Initials of fieldworker		Initials of data capturer	
Hospital					
Unit					

*** Enter a "1" in the block to indicate "yes" and "0" to indicate no. Enter "N/A" if not applicable.**

Instructions: Audit records of in-patients who have been in hospital for at least 2 days. Audit the information for day 2 of the patient's stay wherever possible. Allocate 1 mark for each factor present in the record, and 0 if it is not. If not applicable write N/A against that aspect for the particular patient.

		PATIENT FILES							
No.	**Question/Aspect**	**1**	**2**	**3**	**4**	**5**			
SECTION A : GENERAL REQUIREMENTS							Count	N/A Count	
1	The patient's identifying hospital armband corresponds to data on record i.e. name, allergies and hospital number						0	0	
2	The record contains a sticker (or manual entry) indicating the patient's hospital number, full name, address and date of birth on every page of the record						0	0	
3	Contact details of next of kin recorded						0	0	
4	Home language recorded						0	0	
5	The record indicates the clinical reason for admission						0	0	
6	The patients allergies are recorded, or if none, record reflects this						0	0	30
	Total	0	0	0	0	0	0	0	
SECTION B : MEDICINE CHARTS AND RECORDINGS									

	Check the most recent prescription and medicine administration entry/ entries and indicate whether the record includes :						Count	N/A Count
7	The prescription is dated and the time it was written is recorded						0	0
8	The prescription indicates the frequency and time for administering the dose						0	0
9	The prescribed medicine was given						0	0
10	The medicine administration chart indicates the name and dose of the medicine						0	0
11	The medicine administration chart indicates the route of administration of the medicine						0	0
12	Medications administered are signed, dated & the time recorded						0	0
	Total	0	0	0	0	0	0	0
	SECTION C : PROBLEM BASED NURSING RECORD						Count	N/A Count
13	Patient's problems are identified on admission						0	0
14	Patient's problems are prioritized						0	0
15	A care plan is written for each of the priority problems						0	0
16	There is a day report referring to the priority problems						0	0
17	There is a night report referring to the priority problems						0	0
18	The day report indicates if the patient is						0	0

	responding to care or not							
19	The entries in the nursing record are all legible						0	0
20	All the entries for the previous day and night reports are legible						0	0
	Total	0	0	0	0	0	0	0
	GRAND TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**

40

GRAND TOTAL	**0**
PERCENT COMPLIANCE	**0.0%**

Total Possible Score	100
Total Possible Score on number of Records Checked	0
Possible Score after excluding "N/A"s	0

	Count	N/a Count	Possible Score	% Compliance
SECTION A : GENERAL REQUIREMENTS	0	0	0	0.0%
SECTION B : MEDICINE CHARTS AND RECORDINGS	0	0	0	0.0%
SECTION C : PROBLEM BASED NURSING RECORD	0	0	0	0.0%
TOTAL	**0**	**0**	**0**	**0.0%**

ANNEXURE B

Code
O1

Observation Checklists – Medical

Date completed		Initials of field worker		Initials of data capturer
Hospital				
Unit				

Possible Score

*** Enter a "1" in the block corresponding to the tick on the sheet.**

Area	No.	Question	Yes	No	N/A
		NB: This list is not intended to be a complete list of required equipment for managing an emergency, but of items selected by the researchers specifically for use with the SUMS project. The following equipment is present and functional in the emergency trolley in the ward:			
Emergency trolley	F1	AED machine/ defibrillator			
	F2	Pads, paddles and electrodes for the above			
	F3	Universal precautions equipment - gloves			
	F4	Universal precautions equipment - eye protection			
	F5	Universal precautions equipment - face-mask			
	F6	Suction equipment			
	F7	Oropharyngeal airways			
	F8	Naso-pharyngeal airways			
	F9	Manual resuscitator device (adult)			
	F10	Manual resuscitator device (paeds)			
	F11	Laryngoscope with curved blades			
	F12	Suction catheters			
	F13	Emergency medications according to local protocol (posted inside emergency trolley)			

			Yes	No	N/A	
		TOTAL	**0**	**0**	**0**	13

COMMENTS:

Area		Question	Yes	No	N/A	
Med & Surg units		A protocol/guidelines on each of the following is available in the unit:				
Guidelines	No.	NATIONAL DEPARTMENT OF HEALTH PROTOCOLS				
	G1	Management of HIV and AIDS				
	G2	Control of Tuberculosis				
	G3	Management of Asthma				
	G4	Management of Hypertension				
	G5	Standard treatment guidelines & Essential drugs list for hospitals – adults				
	G6	Management of diabetes				
		LOCAL /PROVINCIAL OR GROUP PROTOCOLS				
	G7	Administration of blood and blood products				
	G8	Administration of medications				
	G9	Patient consent				
	G10	Patient Fall precautions				
	G11	Prevention of pressure sores				
	G12	Patient identification				
	G13	Patient restraint				
		TOTAL	**0**	**0**	**0**	13

COMMENTS:

Area	No.	Question	Yes	No	N/A
Storage of medicines	L1	A system is in place to check expiry dates on stock items in the medicine room / cupboard			
	L2	A system is in place to write off expired stock			
	L3	A system is in place to ensure **packing** according to FEFO and FIFO principles (first expired/first out and first in/first out)			
	L4	A system is in place to ensure **issuing** according to FEFO and FIFO principles (first expired/first out and first in/first out)			
	L5	All storage areas are self contained and secure			
	L6	Control of access to storage areas is of such a nature that only persons authorized has access to the store			
	L7	All documentation for receipts of stock is available			
	L8	Scheduled medicines are stored separately in locked cupboards			
	L9	The drug register is complete, accurate and up to date			
		TOTAL	**0**	**0**	**0**

9

COMMENTS:

Area	No.	Question	Yes	No	N/A
Maintenance of cold chain	M1	The refrigerator has a working maximum-minimum thermometer or dial thermometer			
	M2	The thermometer is placed in the middle of the refrigerator			
	M3	The temperature is recorded twice a day on a form attached to the outside of the refrigerator			
	M4	No **vaccines** are stored in the refrigerator door			
	M5	No **medication** is stored in the refrigerator door			
	M6	Vaccines are stored separately from other refrigerator items			
	M7	No food is stored in the refrigerator			
	M8	The ice in the refrigerator is less than 0.5 cm thick			
	M9	A record confirms that the refrigerator is cleaned at least twice a month			
	M10	A backup system is available for storage of medicines when defrosting the refrigerator			
	M11	A system is in place to ensure the cold chain is maintained from the time of dispensing to the time of receipt by the end-user (patient)			
		TOTAL	**0**	**0**	**0**

1
1

COMMENTS:

Area	No.	Question	Yes	No	N/A
Availability of clinical equipment		The following clinical equipment is available and functional in the ward:			
		Wards, Nurse Duty Station			
	N1	Diagnostic set			
	N2	Laryngoscope set			

N3	NIBP, electronic (1/15 beds)						
N4	Glucose meter						
N5	HB meter						
N6	Cabinet, medicine, lockable						
	Wards, Sluice Room						
N7	Bed pan / urinal washing machine/device						
N8	Rack, bedpan, drying						
	Treatment room						
N9	Aspirator, surgical, 2 bottle, small, < 2 liter						
N10	Electrocardiograph, 12 channel						
N11	Light, surgical, mobile, with battery backup						
N12	Oximeter, pulse & NIBP						
N13	X-ray viewing box						
N14	Tracheostomy set						
N15	Instrument set, dressing						
N16	Instrument set, IV cut-down/ central line						
N17	Trolley, dressing						
N18	Examination table, with pad						
	TOTAL	**0**	**0**	**0**			
The following equipment is available and functional at patients' bedside:		COUNT					
(Check bed number 1, 5, 10, 15 & 20 or if unoccupied, the next occupied bed. **Indicate 1 for 'yes' & 0 for 'no'**)		1	5	10	20	Yes	No
N20	Bedside cabinet/locker					0	0
N21	Over bed / "cardiac" table					0	0
N22	Hospital bed, adult					0	0
N23	Mattress for hospital bed, adult					0	0
N24	Intravenous pole / hook					0	0
N25	Bedside chair / bench					0	0
	Area TOTAL	**0**	**0**	**0**	24		

COMMENTS:

Area	No.	Question	Yes	No	N/A
Stock level of supplies		The minimum and maximum stock levels for the supplies listed below are adhered to:			
	P1	Syringes (2ml)			
	P2	Needles (12G)			
	P3	Sterile gauze packs			
	P4	Urinary catheters			
	P5	Urine bags			
	P6	Urine dipsticks			
	P7	Adhesive tape			
	P8	IV administration sets			
	P9	Suction catheters			
	P10	Ringers Lactate solution (IV fluids)			
		TOTAL	**0**	**0**	**0**

10

COMMENTS:

Area	No.	Question	Yes	No	N/A
Infection control	X1	Suitable containers with correctly fitting lids are available for the disposal of sharps			
	X2	Staff members use these containers appropriately			

	X3	Colour coded bags are available for various types of waste				
	X4	Posters indicating which colour bag to use for various types of waste are prominently displayed in the ward				
	X5	Staff members comply with the policy on segregating waste.				
		TOTAL	**0**	**0**	**0**	5
COMMENTS:						

GRAND TOTAL	**0**	**0**	**0**	**85**

ANNEXURE C

NURSING STUDENTS' INFORMATION LETTER.

INVITATION TO PARTICIPATE IN THE STUDY TITLED "**THE QUALITY OF THE CLINICAL LEARNING ENVIRONMENT FOR NURSING STUDENTS IN A FEDERAL HEALTH INSTITUTION IN NIGERIA.**" Hello, my name is ADEHANLOYE EMILY KOFOWOROLA, I am a professional nurse and currently registered for a Master of Science in Nursing by Research in Department of Nursing, University of Witwatersrand, Johannesburg, South Africa.

Area of interest: I am conducting a quantitative survey of the clinical learning environment of the nursing students in the fourth (4th) year in order to know their perceptions about what is happening in their environment. I will be most grateful if you agree to participate in this study. You have been selected as a potential participant for this study as you have been posted to both medical and surgical units of Federal Medical Centre Owo for your practical experiences. Your experiences, thoughts and feelings will be of most valuable to this project.

Purpose of the study: The aim of this study is to explore the quality of the clinical learning environment and available facilities necessary in teaching nursing students as well as ensure public safety in federal health institution with a view to later improve the quality of the learning environment and therefore the quality of nursing education in a Federal health institution.

Choice of participation: Should you agree to participate, I will request you to complete the biographical questionnaire in order to know how you perceive the clinical learning environment during your practical postings.

Benefits and Risk to the participants: This study will give you an opportunity to tell us how you felt and your experiences during clinical postings. The study may not directly benefit you immediately, but you will be helping other prospective nursing students who will be undergoing the same training after you as the result of this study will be made available to health institution and the school. As such, your contributions will help in developing measures to improve patient-centred care and improve the clinical learning environment of nursing students.

Voluntary participation, Consent and Confidentiality: Your participation in this study is entirely voluntary as you may choose not to participate or withdraw from the study at any time. This will have no effect on your clinical training and evaluation in this health care institution whether you

agree to participate or not. Should you decide to participate, your identity will be completely hidden so as to uphold confidentiality and privacy.

Permission will be obtained from the ethics research committee of the Ethics and Health Research Committee of Federal Medical Centre, Owo.

Should you wish to know more about the study you may contact me on telephone number +2348030763859 or email:kofoemily2016@gmail.com.

Alternatively you may contact

Dr Sue Armstrong (Supervisor)

Department of Nursing Education, School of Therapeutic Sciences, Faculty of Health Sciences, University of the Witwatersrand, 7 York Road, Parktown, 2195, Johannesburg, South Africa at email: sue.armstrong@wits.ac.za or Tel: +27(0)114884272

Professor C. Penny, (Chairperson, HREC Medical) at Tel: +27(0)117172301 or email:

clement.penny@wits.ac.za

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

Yours Faithfully,

Adehanloye E.K.

MSc. Nursing student.

ANNEXURE D

QUESTIONAIRE FOR ASSESSMENT OF QUALITY OF THE CLINICAL LEARNING ENVIRONMENT (STUDENTS).

Section A: Demographic Information: Gender – M / F Age (years) – (a). 18-22, (b). 23-27, (c). 28 & above. (Please circle the appropriate answer)

Section B.

Each of the items has 3 possible responses, they range from 3=Yes 2= No 1=Not Applicable (N/A) Please tick the response that clearly represents your degree of agreement or disagreement with the statement. Please respond to all statements.

KEY: 3=YES, 2=NO, 1=NOT APPLICABLE (N/A)

	STATEMENT	YES	NO	N/A
	CLINICAL PLACEMENT AREA:			
1.	We receive a manual containing all rules guiding clinical practice prior to commencement of clinical placement.			
2.	I get sufficient clinical exposure during the clinical postings.			
3.	There is enough clinical supervision by the clinical facilitators during my posting.			
4.	Nursing students and clinical facilitators have effective communication.			
5.	There is effective communication between the clinical facilitators and other staffs in the clinical facility.			
6.	The learning facilities are supportive of professional growth, skills development and practice of nursing students.			
7.	There are enough equipment for students' clinical practice in the hospital.			
8.	As a nursing student I am willing to learn.			
9.	I am willing to accept constructive criticism.			
10.	A special time is planned for students clinical presentation as repertoire of what had been learnt.			
11.	The clinical facilitators usually dominate the debriefing sessions.			
12.	The clinical facilitators were unfriendly and inconsiderate towards me.			

13.	The clinical facilitators seldom go around the ward to talk to the students			
14.	I usually have a sense of satisfaction after my shift that I have learn to assist a patient.			
15.	The university has enough equipment and material resources for demonstration of clinical skills than we experienced on the ward.			
16.	The university has enough space for clinical teaching and learning activities.			
17.	The clinical placement was always boring and like a waste of time to me.			
18.	I enjoy going to my clinical placement because of the conducive environment.			
19.	I was dissatisfy with my clinical experience.			
20.	State reason(s) for your dissatisfaction.			

Any comments you would like to make? ……………………………………………………………..

………………………………………………………………………………………………………

……………………………………………………………………………………………………..

ANNEXURE E

INFORMATION LETTER FOR CLINICAL FACILITATOR.

INVITATION TO PARTICIPATE IN THE STUDY ENTITLED "THE QUALITY OF THE CLINICAL LEARNING ENVIRONMENT FOR NURSING STUDENTS IN A FEDERAL HEALTH INSTITUTION IN NIGERIA."

Hello, my name is ADEHANLOYE EMILY KOFOWOROLA, I am a professional nurse and currently registered for a Master of Science in Nursing by Research in Department of Nursing, University of Witwatersrand, Johannesburg, South Africa.

Area of interest: I am investigating the perceptions of clinical facilitators' about the clinical learning environment of nursing students. I am inviting you to participate in this study. You have been selected as a potential participant for this study as you have spent not less than four (4) years in either or both medical and surgical units of Federal Medical Centre Owo and are an experienced nurse. Your experiences, thoughts and feelings will be of most valuable to this project.

Purpose of the study: The aim of this study is to explore the quality of the clinical learning environment and available facilities necessary in teaching nursing students as well as ensure public safety in federal health institution with a view to later improve the quality of the learning environment and therefore the quality of nursing education in a Federal health institution.

Choice of participation: Should you agree to participate, I will request you to complete a biographical questionnaire and also hold an interview with you to find out your experiences and feelings of being a clinical facilitator to nursing students in the medical / surgical units. The interview is planned to be audiotaped with your permission and I will also make notes during the interview. I will schedule an appointment with you as to know the convenient date and time by you. The interview should take about 45 minutes - 1 hour.

Benefits and Risk to the participants: This study will give you an opportunity to tell us how you felt and your experiences about the nursing records, stocks and equipment available in training nursing students during their practical postings. The study may not directly benefit you

immediately, but you will be helping other prospective facilitators coming up after you and nursing students who will be coming for practical experiences, as the result of this study will be made available to health care workers in the institution. As such, your contributions will help in developing measures to improve patient-centred care and improving quality of health care rendered.

Questions that will be asked during the interview are simple questions just to find out your experiences and feelings.

Voluntary participation, Consent and Confidentiality:

Your participation in this study is entirely voluntary as you may choose not to participate or withdraw from the study at any time. Should you decide to participate, your identity will be completely hidden by allocating a code to your interview transcript. I will also request you to sign a consent form both for participation and for audio-taping. I will be asking you questions in English Language that aim to find out your experiences over the years in teaching nursing students during their clinical postings. Only I and my supervisor will have access to the tape recordings and transcripts which will be kept under lock and key to ensure they remain confidential. Should a quote be used from your interview in the research report, it will be referred to by your code and will therefore not be traced to you.

Permission will be obtained from the ethics and health research committee of the hospital to conduct this study.

Should you wish to know more about the study you may contact me on telephone number

+234-8030763859 or email: kofoemily2016@gmail.com. Should you wish to have a copy of the final research report, please provide me with your detailed postal address.

Alternatively you may contact

Dr Sue Armstrong (Supervisor)

Department of Nursing Education, School of Therapeutic Sciences, Faculty of Health Sciences, University of the Witwatersrand, 7 York Road, Parktown, 2195, Johannesburg, South Africa at email: sue.armstrong@wits.ac.za or Tel: +27(0)114884272

Professor C. Penny, (Chairperson, HREC Medical) at Tel: +27(0)117172301 or email:

clement.penny@wits.ac.za

Thank you for taking the time to read this information sheet. Your voluntary participation will be appreciated.

Yours Faithfully,

Adehanloye E.K.

MSc. Nursing student.

ANNEXURE F1

CONSENT TO PARTICIPATE IN SEMI STRUCTURED INTERVIEW

I ……………………………………………..have been given the information sheet on the project entitled "The quality of the clinical learning environment for nursing students in a Federal health institution in Nigeria". I have read and understood the Information Sheet and all my questions have been answered satisfactorily.

I understand that it is up to me whether or not I would like to participate in the interview and that there will be no negative consequences if I decide not to participate. I also understand that I do not have to answer any questions that I am uncomfortable with and that I can ask for clarification or stop the interview at any time.

I understand that the researchers involved in this project will make every effort to ensure confidentiality and that my name will not be used in the study reports, and that comments that I make will not be reported back to anybody else. I consent voluntarily to participate in the interview for this study. I have been given telephone numbers that I may call if we have any questions or concerns about the research.

Participant's signature ……………………………… Date………………………….

Interviewer's Signature ………………………………. Date…………………………..

ANNEXURE F2

CONSENT FOR AUDIO-TAPE RECORDING DURING THE STUDY INTERVIEW

I____ (Name) have been given the Information sheet on the project entitled "The quality of the clinical learning environment for Nursing students in a federal health institution in Nigeria." I have read and understood the Information Sheet and all my questions have been answered satisfactorily.

I understand that I can decide whether or not the interview should be voice-recorded and that there will be no consequences for me if I do not want the interview to be recorded.

I understand that voice-recorded information will be transcribed and transcripts will be given a code and my name will not be mentioned. I understand that the voice recording will be destroyed two years after publication of the research.

I understand that I can ask the person interviewing me to stop voice-recording, and to stop the interview altogether, at any time.

_________________________ _________________________

Signature Date

_____________________ ________________ ____________

Researcher's Name Signature Date

ANNEXURE G

CLINICAL FACILITATORS' SEMI - STRUCTURED INTERVIEW GUIDE

1. How long have you been on this ward as a clinical facilitator?

2. How do you view your role as a clinical facilitator?

    - Please explain.

3. What opportunities do you have to provide quality clinical supervision?

4. What are the constraints that make it difficult for you to provide a quality learning environment for the students?

    - The nursing student themselves?
    - Nursing records, stock and equipment?
    - Support from the school?
    - Requirements of the NMCN?

5. Any other suggestion or comments you would like to make?

ANNEXURE H

University of Witwatersrand,
Department of Nursing Education,
Faculty of Health Sciences,
7 York Road,
Park town 2193,
Johannesburg,
South Africa.
Date……………………….

TO,
Medical Director,
Thro'
The Chairman, Ethics and Health Research Committee,
Federal Medical Centre, Owo, Ondo State,
Nigeria.
Dear Sir,

RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY IN THE MEDICAL AND SURGICAL UNITS OF THE FEDRAL MEDICAL CENTRE, OWO.

I am a registered nurse currently pursuing a Master of Science in Nursing by Research in Department of Nursing, University of Witwatersrand. I hereby apply to conduct a study entitled: 'the quality of the clinical learning environment for Nursing students in a Federal Health Institution in Nigeria.''

The study aims to explore the quality of clinical learning environment and available facilities necessary to deliver an efficient teaching for nursing students as well as ensure public safety in federal health institution with a view to, at a later stages, improve the quality of the clinical learning environment and therefore the quality of nursing education in the Federal health institution. I intend to audit the nursing records, stocks and equipment available as well as interview the clinical facilitators on their perceptions about the clinical learning environment for the nursing students.

The interview will be audio-taped with the permission of the participants in order to obtain enough information from them. The audio-taped information will be destroyed after the transcription has been checked to ensure that no identification whatsoever is made to the participants and the transcribed information will be confidential.

Necessary ethical measures regarding the study will be upheld to safeguard the dignity of the institution, personnel and the participants. The study will be conducted after the proposed study had been critically reviewed by the ethics and health research committee of Federal Medical

Centre, Owo and an approval has been received. Participation in the study will be voluntary and written consent will be provided.

Yours Faithfully,

Adehanloye Emily K.

MSc Nursing Student

Email: kofoemily2016@gmail.com

ANNEXURE I

University of Witwatersrand,
Department of Nursing Education,
Faculty of Health Sciences,
7 York Road,
Park town 2193,
Johannesburg,
South Africa.
Date……………………….

TO,
The Medical Director,
Thro'
The Head of Clinical Services,
The Chairman, Ethics and Health Research Committee,
Federal Medical Centre, Owo, Ondo State,
Nigeria.
Dear Sir,

RE: REQUEST FOR PERMISSION TO ASSESS THE EXPERIENCE OF FOUR HUNDRED LEVEL NURSING STUDENTS OF THE DEPARTMENT OF NURSING, ACHIEVERS UNIVERSITY, OWO, DURING THEIR CLINICAL POSTING AT FEDERAL MEDICAL CENTRE OWO.

I am a registered nurse currently pursuing a Master of Science in Nursing by Research in Department of Nursing, University of Witwatersrand. I am presently conducting a research study entitled: 'the quality of the clinical learning environment for Nursing students in a Federal Health Institution in Nigeria.'' I hereby request your permission to assess the clinical experience of the four hundred level nursing students during their clinical posting at federal medical centre, Owo.

The study aims to explore the quality of the clinical learning environment and available facilities necessary to deliver an efficient teaching for nursing students as well as ensure public safety in federal health institution with a view to, at a later stage, improve the quality of the clinical learning environment. The study will also help to foster the relationship of nursing education institution like Achievers University and health institution like Federal medical centre Owo, and therefore the quality of nursing education in the Federal health institution. I intend to conduct a survey of the perceptions of the students with regard to the clinical learning environment. The survey will be administered to the fourth-year students.

The interview will take the form of a questionnaire with the permission of the participants. The information sheet (Annexures C&D) will be distributed, the research assistant will answer any

questions and then will hand out a survey tool to each of the students. They will be informed that if they do not wish to participate, they can post the empty survey tool in the box provided to ensure that no-one knows whether they have participated or not. Completion of the questionnaire will be voluntary. Students will be asked to post the questionnaires in the sealed box that will be provided in the classroom. This box will then be given to the researcher who will be the only one to open the box. No names or other identifiers appear on the questionnaires.

Necessary ethical measures regarding the study will be upheld to safeguard the dignity of the institution, and the participants. The study will be conducted after the proposed study had been critically reviewed by the ethics and health research committee of Federal Medical Centre, Owo and an approval has been received. The proposal stating the methodologies which will be employed for this study is herewith attached.

Yours Faithfully,

Adehanloye Emily K.

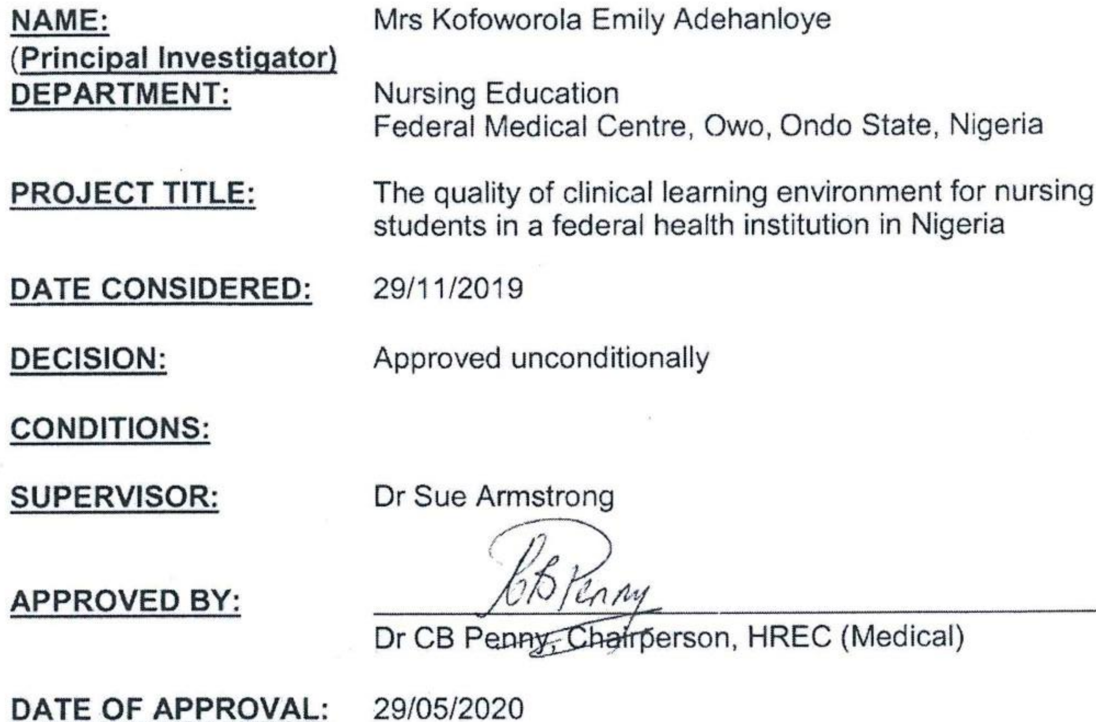
MSc Nursing Student

Email: kofoemily2016@gmail.com

Annexure J

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

R14/49 Mrs Kofoworola Emily Adehanloye



HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M191185

NAME: (Principal Investigator) Mrs Kofoworola Emily Adehanloye

DEPARTMENT: Nursing Education
Federal Medical Centre, Owo, Ondo State, Nigeria

PROJECT TITLE: The quality of clinical learning environment for nursing students in a federal health institution in Nigeria

DATE CONSIDERED: 29/11/2019

DECISION: Approved unconditionally

CONDITIONS:

SUPERVISOR: Dr Sue Armstrong

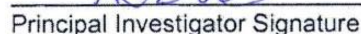
APPROVED BY: CB Penny
Dr CB Penny, Chairperson, HREC (Medical)

DATE OF APPROVAL: 29/05/2020

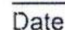
This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary on the Third Floor, Faculty of Health Sciences, Phillip Tobias Building, 29 Princess of Wales Terrace, Parktown, 2193, University of the Witwatersrand. I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions.Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report.** The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. In this case, the study was initially reviewed in **November** and will therefore be due in the month of **November** each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical).



Principal Investigator Signature



03/06/2020
Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

FEDERAL MEDICAL CENTRE, OWO.

Michael Adekunle Ajasin Road, P. M. B. 1053, Owo, Ondo State.
Tel: 08035094545, 08062077773
e-mail: fmcowo1993@gmail.com

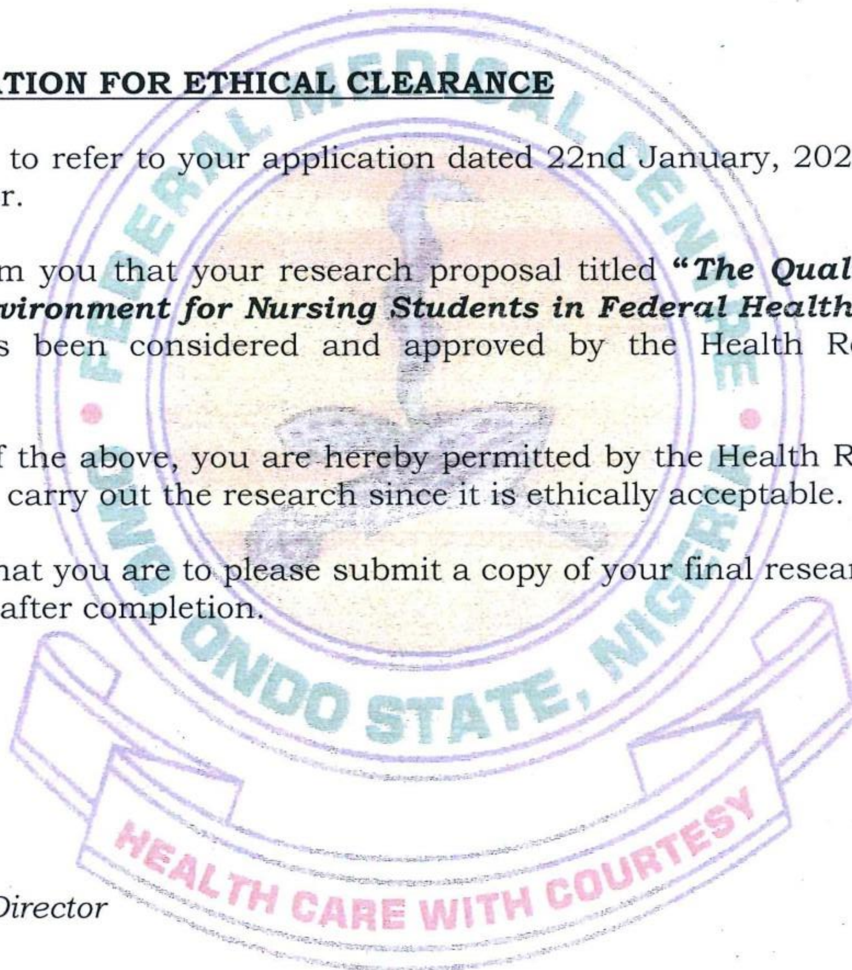
ANNEXURE K

Medical Director
DR. L. A. AHMED MBBS, FMCFM, FWACP
Head of Clinical Services
DR. I. O. FASORANTI MBChB (Ife), FWACP
HOA/Secretary Board of Management
MR. L. A. OMOAREGBA BA(French) MPA, AHAN

Our Ref : FMC/OW/380/VOL. XXXII/127

Date : 10th February, 2020

Mrs. E. K. Adehanloye
University of Witwatersrand
Department of Nursing Education
Faculty of Health Sciences
7 York Road
Park Town 2193
Johannesburg
South Africa.



RE: APPLICATION FOR ETHICAL CLEARANCE

I am directed to refer to your application dated 22nd January, 2020 on the above subject matter.

I am to inform you that your research proposal titled ***"The Quality of Clinical Learning Environment for Nursing Students in Federal Health Institution in Nigeria"*** has been considered and approved by the Health Research Ethics Committee.

In the light of the above, you are hereby permitted by the Health Research Ethics Committee to carry out the research since it is ethically acceptable.

I am to add that you are to please submit a copy of your final research work to the Management after completion.

Thank you.

A. A. Salami
For: Medical Director

FEDERAL MEDICAL CENTRE, OWO.

Michael Adekunle Ajasin Road, P. M. B. 1053, Owo, Ondo State.
Tel: 08035094545, 08062077773
e-mail: fmcowo1993@gmail.com

ANNEXURE L

Medical Director
DR. L. A. AHMED MBBS, FMCFM, FWACP

Head of Clinical Services
DR. I. O. FASORANTI MBChB (Ife), FWACP

HOA/Secretary Board of Management
MR. L. A. OMOAREGBA BA(French) MPA, AHAN

Our Ref: **FMC/OW/380/VOL. XXXII/128**

Date: **10th February, 2020**

Mrs. E. K. Adehanloye
University of Witwatersrand
Department of Nursing Education
Faculty of Health Sciences
7 York Road
Park Town 2193
Johannesburg
South Africa.

RE: APPLICATION TO OBTAIN DATA

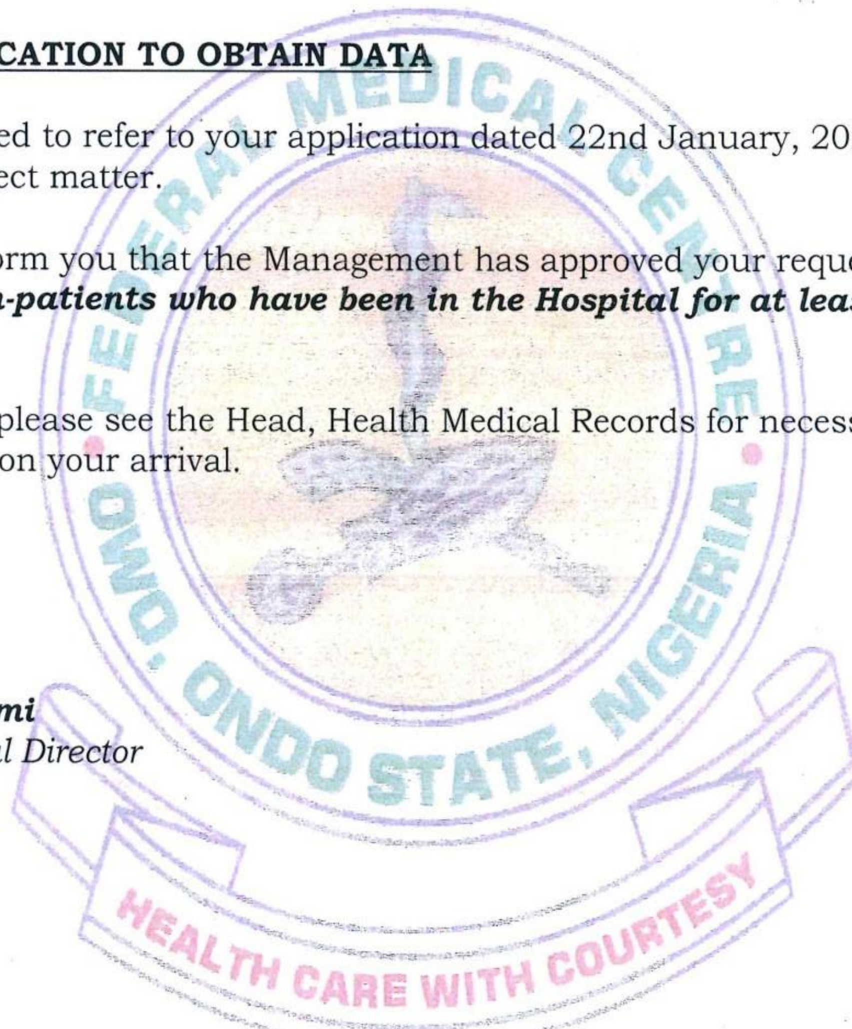
I am directed to refer to your application dated 22nd January, 2020 on the above subject matter.

I am to inform you that the Management has approved your request to obtain data on ***"In-patients who have been in the Hospital for at least Two (02) Days".***

You are to please see the Head, Health Medical Records for necessary assistance on your arrival.

Thank you.

A. A. Salami
For: Medical Director



FEDERAL MEDICAL CENTRE, OWO.

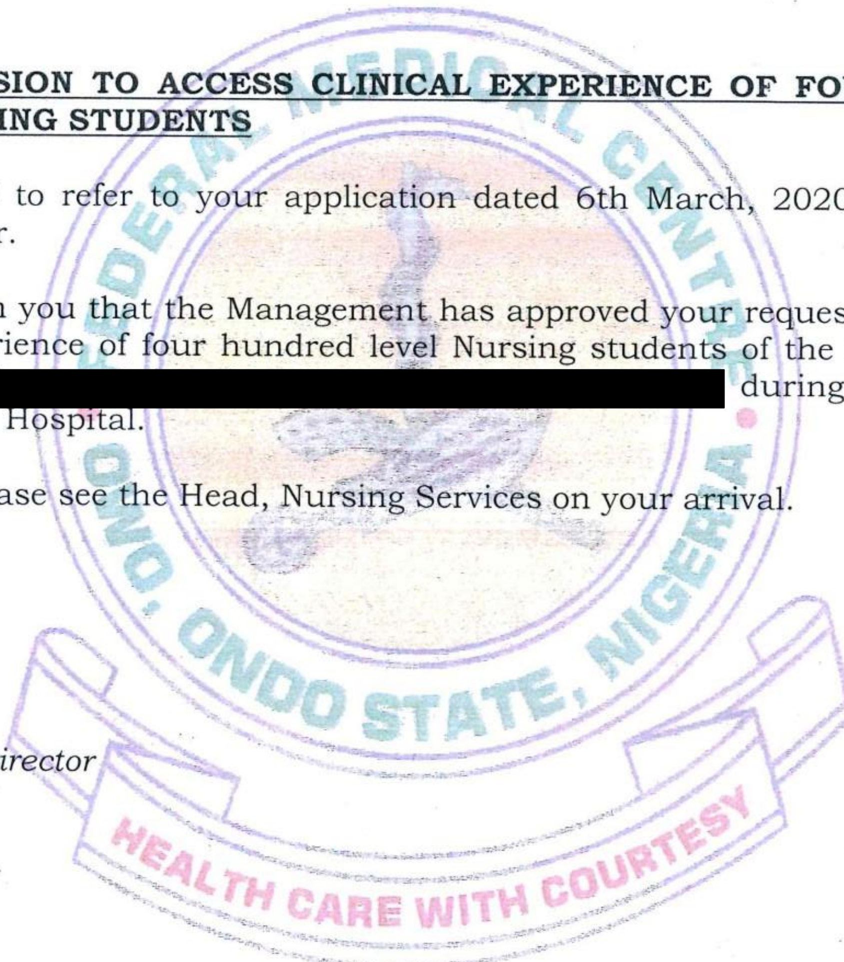
Michael Adekunle Ajasin Road, P. M. B. 1053, Owo, Ondo State.
Tel: 08035094545, 08062077773
e-mail: fmcowo1993@gmail.com

ANNEXURE M

Medical Director	Head of Clinical Services	HOA/Secretary Board of Management
DR. L. A. AHMED *MBBS, FMCFM, FWACP*	DR. I. O. FASORANTI *MBChB (Ife), FWACP*	MR. L. A. OMOAREGBA *BA(French) MPA, AHAN*

Our Ref : **FMC/OW/380/VOL.LXXXIV/183** *Date :* **6th March, 2020**

Mrs. E. K. Adehanloye
University of Witwatersrand
Department of Nursing Education
Faculty of Health Sciences
7 York Road
Park Town 2193
Johannesburg
South Africa.



RE: PERMISSION TO ACCESS CLINICAL EXPERIENCE OF FOUR HUNDRED LEVEL NURSING STUDENTS

I am directed to refer to your application dated 6th March, 2020 on the above subject matter.

I am to inform you that the Management has approved your request to assess the Clinical Experience of four hundred level Nursing students of the Department of Nursing, [redacted] during their Clinical posting in the Hospital.

You are to please see the Head, Nursing Services on your arrival.

Thank you.

A. A. Salami
For: Medical Director