SITUATIONAL ANALYSIS OF CLINICAL LEARNING ENVIRONMENT FOR THE UNDERGRADUATE NURSING STUDENTS AT SELECTED HEALTH FACILITIES IN CENTRAL AND EASTERN KENYA

BY

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DECLARATION

Declaration of the candidate

This research is my original work and has not been presented for a degree in any other university.

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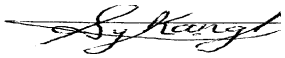
Sign: 

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DEDICATION

This research work is dedicated to all nurse educators, clinical instructors, clinical preceptors and nursing students. It is also dedicated to everyone who in one way or another look upon nurses for provision of quality care.

ABSTRACT

Background: Clinical learning environment has an impact on the learning outcomes and performance. Nursing students, nurse educators, nurse preceptors and administrators play a major role in clinical learning. However, the extent to which these roles are effectively performed depends on the quality of clinical learning environment and the level of support provided. Learning opportunities change, therefore, should be identified. Challenges can hinder skill acquisition, reduce confidence, and compromise students' readiness for independent practice. Identification of strategies can strengthen clinical learning. However, gaps persist in many settings. A situational analysis of the clinical learning environment can help in establish the state of clinical learning environment.

Objectives: To assess the role of stakeholders, explore opportunities, explore challenges and evaluate strategies used to improve clinical learning in selected health facilities in Central and Eastern Kenya.

Methods: The study used mixed methods cross-sectional study design with empiricism and grounded theory approach. No hypothesis was used, the study sought to answer research questions in line with the objectives. Taro Yamane formula was used to get a sample size of 235 students and 153 nurse preceptors. A census was used for the 23 nurse educators and 7 administrators from selected universities and hospitals. Stratified random sampling was used for students according to the year of study as well as nurses according to the wards. Proportionate random sampling was used to select participants from each stratum. A semi-structure questionnaire and key informant interview guide were used to collect data. SPSS Version 26 was employed to analyze quantitative data. Qualitative data collected were put in broad categories of themes and analyzed in frequencies.

Results: The findings showed that majority of students, preceptors, and educators were aware of their roles in the clinical learning environment, while the majority of the administrators said: *"I appoint the clinical coordinators and approve placement of students in the clinical rotations."* Likert Score means for nursing students, nurse preceptors and nurse educators for the opportunities available in the clinical learning environment indicators were 3.8±0.3, 3.9±0.5 and 3.8±0.3 respectively indicating that the respondents' opinions oscillated between neutral and agree. The majority of the administrators said, *"... the goals of clinical learning are in line with the Nursing Council of Kenya and that means we have no problem with the regulatory body as far as clinical learning is concerned."* The means for the challenges in clinical learning environment indicators were 2.9±0.4, 2.9±0.7 and 2.9±0.5 respectively indicating that the respondents' opinion oscillated between neutral and disagree. According to administrators, space is a challenge as one said, *"... the clinical sites are not adequate in number and also too small in size to accommodate all the nursing students from the universities."* 36 (20.8%) of the students said that the learning resource centres should be located within the hospitals, 71 (50%) of nurse preceptors said clinical instructors should be proactive in supervising students. On the other hand, 6 (26.1%) of the nurse educators said the number of trained mentors should be increased to supervise students closely. Majority of administrators said, *"... proper means of communication between students and supervisors would minimize frustrations and misunderstandings that can hinder smooth learning during clinical rotations."*

Conclusion: This study concludes that all stakeholders are aware of their key roles on clinical learning environment. The clinical learning experience of nursing students is significantly influenced by opportunities and challenges identified in clinical learning environment. The most crucial strategy is the need to improve collaboration between universities and hospitals to ensure proper planning of students' placement in clinical learning environment.

Recommendations: The study recommends that stakeholders be encouraged to understand one's own role within the clinical learning environment. Learning opportunities should be supported and evaluated periodically. Challenges are addressed by adequate preparation of stakeholders. Collaboration between stakeholders is important.

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ACRONYMS AND ABBREVIATIONS

AACN – American Association of Colleges of Nurses

ANA – American Nurses Association.

ANOVA – Analysis of Variance

BScN – Bachelor of Science in Nursing.

CPD – Continuous professional development.

KeMU – Kenya Methodist University.

IREC – Institution Research and Ethics Committee.

MOE – Ministry of Education.

MOH – Ministry of Health.

NACOSTI – National Commission for Science, Technology and Innovation.

NCK – Nursing Council of Kenya.

SPSS – Statistical Package for Social Sciences.

OPERATIONAL DEFINITION OF TERMS

Administrators – refers to deans of the school of nursing, chairmen of nursing departments in universities, nursing services managers in hospitals.

Clinical instructors – refer to a person who is given a mandate to help students learn how to perform well in hospital setting to increase positive patient outcomes.

Clinical learning – application of theory learned in a classroom setting and skills learned in the skills laboratories while students were in the university.

Clinical learning environment –hospital wards or units where nursing students get physical facilities, human resources, supplies and logistics as well as learning experience needed for clinical learning.

Experiential learning – learning through reflection on doing.

Health facility – refers to a hospital that has been approved by the Nursing Council of Kenya for clinical training of nursing students.

Nurse educators – refer to lecturers, tutorial fellows and clinical instructors in selected universities who directly supervise, teach and assess nursing students in the hospital wards/units.

Nurse preceptor – refers to an experienced nurse assigned students in the hospitals wards or units to guide the during their clinical rotation.

Patient – refers to sick people and clients seeking help from hospitals of whom nursing students need and encounter to meet clinical objectives.

Role – functions and responsibilities of stakeholders (students, nurse preceptors, nurse educators and administrators) in the clinical setting.

Situational analysis – refers to comprehensive evaluation of hospital ward/unit where nursing students meet their clinical objectives.

Stakeholders – refers to the people (nursing students, nurse preceptors, nurse educators and administrators) who directly participate in ensuring that clinical objectives are achieved effectively by nursing students.

Standards – refers to statements that outline patient care expectations in the hospital wards/units.

Undergraduate nursing student – is person who has been admitted into Bachelor of Science of nursing degree program.

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CHAPTER ONE

INTRODUCTION

1.0 Introduction to the Chapter

This chapter gives an overview of the nature and scope of the research whose focus is on situational analysis of clinical learning environment for undergraduate nursing students at selected health facilities in Central and Eastern Kenya. This includes the background information on clinical nursing training, statement of the problem and objectives of the study. In addition, the research questions, justification, scope and limitations, assumptions and operational definition of terms that are used in the study are also presented.

1.1 Background to the Study

Nursing is a professional career that requires nurse to possess a wide range of skills and knowledge. Nurses are expected to give the greatest quality of care in a caring way, with little intervention from doctors or other health care providers. Nursing education requires acquisition and mastery of skills in a hospital setting. An adequately prepared nurse is able to provide comprehensive quality nursing care to the patients (Flaubert et al. 2021).

Although clinical skills are necessary, nurses must also possess soft skills and personal attributes. Strong problem-solving abilities are one of the qualities that a nurse must have. Every day, nurses must be available to handle difficulties and manage complications involving sick patients, trauma cases, and other emergency situations (Flaubert et al. 2021). For successful management of daily activities, the nurse requires good problem-solving skills. Integrity is a vital quality of a good nurse. This is because nurses should respect people, regulation and confidentiality in the hospital settings. They should consider the patient as a priority all the time. They should recognize the value of responsible

stewardship, individual dignity, peace, justice, and reconciliation (Marian University: Leighton School of Nursing, 2023).

Being an excellent nurse necessitates adaptability on multiple fronts. During public health emergencies, nurses at hospitals, public health offices, and other community settings must work together seamlessly. The pandemic has increased the demand for team-based care, infection control, person-centered care, and other skills that leverage nurses' strengths (LaFave, 2020).

Nursing is a calling that requires an individual to think and act fast. Nursing is a profession where care is given to the patient and therefore, it is crucial that the patient feels cared for during difficult times (LaFave, 2020). Exceptional nurses will show compassion for what their patients are going through and apply emotional insight to provide comfort and support. Being emotionally supportive of family members and close individuals involved in patients' caregiving also plays a valuable role. It is also an attribute that pervades all aspects of accelerated nursing education (Marian University: Leighton School of Nursing, 2023).

While a nurse does not have to be outgoing to be successful, it is essential that she communicates effectively with other healthcare professionals, patients and their family, to develop an effective plan of care. Patients engage with nurses than most of any member of the medical team and regard them to be their primary supporters; recognizing their needs and collaborating with other members of their team to meet those needs is a key aspect of great nursing practice. Demonstrating these core qualities during one's career will go a long way toward being an excellent nurse. Dedication to patients begins with commitment to academics and practical experience during nurse training (Agner 2020).

Healthcare is a constantly growing area, with new scientific discoveries and technology emerging all the time. Nurses along with other medical professionals are expected to engage in continuous learning throughout their careers. Regardless of their time practicing as a nurse, she is likely to learn something new every day (Flaubert et al. 2021). If the nurse is enthusiastic about continual professional development and enjoys reading medical publications, she could make an excellent nurse.

A great nurse must also be able to work well with others. Nursing personnel provide care within a broader context. They team up with nurses, physicians, therapists and other specialists involved in healthcare. This allows improvement in outcomes and provides support to patients' overall wellbeing. This underscores the importance of teamwork in the workplace (Flaubert et al. 2021).

Nurses often face demanding workloads during their shifts, juggling needs of multiple patients including individuals with serious health issues. The profession also requires the nurse to work long shifts and learn how to deal with a variety of unexpected events. These changes help to ensure appropriate nurse coverage and comprehensive treatment for patients (Brickman et al., 2020).

It is important that nurses remain attentive in all areas of patient care in order to reduce mistakes such as giving the wrong medication or dosage. Furthermore, there is a need to remain vigilant in order to discover potential areas of worry for the patients. A competent nurse possesses emotional intelligence. Nursing can be a very gratifying and important vocation that you may find personally satisfying. After all, nurses dedicate themselves to supporting the wellbeing of others.

The role can be mentally and emotionally exhausting with some shifts being more difficult than others. The nurse may also experience patient loss and have to provide comfort to grieving families. It is emotionally demanding at times, making it important for nurses to be resilient. After a difficult shift, it can be beneficial to remind oneself that other patients rely on them (Flaubert et al. 2021).

Nursing services begin with training, which guides nursing students through information acquisition and application, skill development, and the cultivation of appropriate attitudes. Nursing education is a dynamic, ongoing learning process that shapes student behavior in patient care. In this case, one of the most crucial experiences for nursing students is exposure to patients in a clinical setting during their training. Aside from that, nursing students will need to work on building the characteristics of a good nurse while in the clinical learning setting so that they can perform effectively after graduation (AACN, 2024).

Clinical education of students enrolled in BSc nursing programs is challenging because the majority of nurses in practice do not have university degrees and may lack the requisite abilities to promote clinical learning at the degree level. A study conducted in Uganda found that university-based nursing degree programs create graduates who may positively influence the health outcomes of the patients they care for. While these programs are supported by robust quality assurance procedures within the institution and professional regulation, clinical instruction remains a difficulty in low-resource settings (Drasiku et al., 2021).

In Kenya, BSc nursing students receive clinical training that combines extensive theoretical coursework with practical hospital and community internships, culminating in an

obligatory 1-year internship. The NCK mandates this clinical progression to ensure comprehensive, evidence-based care and professional licensure. However, nursing students commonly face congested clinical locations and insufficient mentorship, jeopardizing skill acquisition and confidence (NCK, 2020).

Clinical learning is an important part of nursing education because it allows students to apply their theoretical knowledge in real-world patient care settings. However, the effectiveness of this learning is frequently influenced by the quality of the clinical setting. According to research, inadequate supervision, restricted resources, and bad staff attitudes can all impede student learning and professional development (Jacob et al., 2023).

Conducting a situational analysis of the clinical learning environment is therefore critical for identifying existing gaps and proposing improvement options. Such analysis not only educates hospitals and training institutions, but also helps to build competent, confident, and patient-centered nurses.

1.2 Statement of the Problem

Clinical learning environments are critical to the professional growth of healthcare students, allowing them to integrate theoretical knowledge with practical abilities. Despite their importance, many institutions have ongoing issues in ensuring that these environments promote successful learning.

The roles of stakeholders, including as students, nurse preceptors, nurse educators, and administrators, are frequently unclear or poorly coordinated, resulting in fragmented supervision, inconsistent feedback, and insufficient support for learners. While clinical assignments are designed to expose students to a variety of patient scenarios and interprofessional teamwork, variations in patient availability, workload pressures, and

instructional methods frequently limit the breadth and depth of learning experiences. Furthermore, students face challenges such as unclear learning objectives, insufficient mentoring, and limited access to clinical resources. Educators strive to strike a balance between service delivery and instructional obligations, while institutions face systemic challenges such as limited resources, policy gaps, and insufficient evaluation procedures. These obstacles cumulatively weaken the quality of clinical education and impede the development of competent, confident, and reflective practitioners.

Given these problems, an investigation of the clinical learning environment is urgently required. Such an analysis will identify stakeholders' responsibilities and contributions, assess the appropriateness of learning opportunities, highlight difficulties, and offer evidence-based methods to improve the effectiveness of clinical training. Without purposeful intervention, current constraints risk jeopardizing the preparedness of future healthcare professionals and, ultimately, the quality of patient care.

This study, therefore, is carried out at selected health facilities in Central and Eastern Kenya.

1.3 Purpose of the Study

The purpose of the study was to analyze the situation of clinical learning environment for undergraduate nursing students at selected health facilities in Central and Eastern Kenya in order to provide valuable insight into the current situation that can contribute to informed decision making to drive success and achieve the strategic objectives of clinical training.

1.4 Objectives of the Study

The objectives of this study were to:

1. Assess the role of stakeholders in clinical learning environment for the undergraduate nursing students at selected health facilities in Central and Eastern Kenya.

2. Explore the opportunities promoting clinical learning for the undergraduate nursing students at selected health facilities in Central and Eastern Kenya.

3. Explore the challenges encountered by stakeholders in clinical learning environment for the undergraduate nursing students at selected health facilities in Central and Eastern Kenya.

4. Evaluate strategies used to improve clinical learning environment for the undergraduate nursing students at selected health facilities in Central and Eastern Kenya.

1.5 Research Questions

1. What are the roles of stakeholders in clinical learning environment for the undergraduate nursing students at selected health facilities in Central and Eastern Kenya?

2. What opportunities promote clinical learning environment for the undergraduate nursing students at selected health facilities in Central and Eastern Kenya?

3. What are the challenges encountered by stakeholders in clinical learning environment for the undergraduate nursing students at selected health facilities in Central and Eastern Kenya?

4. What strategies are used to improve clinical learning environment for the undergraduate nursing students at selected health facilities in Central and Eastern Kenya?

The null hypothesis (H_0): opportunities and challenges in the clinical learning environment have no statistically significant influence on the learning experience of nursing students in the clinical learning environment.

The alternative hypothesis (H_a): opportunities and challenges in the clinical learning environment have a statistically significant influence on the learning experience of nursing student in the clinical learning environment.

1.6 Justification of the Study

The efficiency of clinical training is inextricably tied to the quality of nursing care, making CLE an important field of study. Nursing students are supposed to build competence by active participation in patient care during clinical assignments; yet, their capacity to execute these responsibilities is frequently influenced by a variety of environmental and institutional circumstances. Understanding these roles and the circumstances under which they are performed is critical to improve nursing education and practice.

Globally, concerns have been raised about clinical training gaps, such as inadequate supervision, restricted learning opportunities, and unclear role expectations for nursing students. The World Health Organization highlights the importance of improving nursing education and clinical training in order to provide safe and high-quality healthcare. Despite these recommendations, many clinical settings continue to face issues that can impede successful student learning and participation. In Kenya, regulatory groups such as the NCK have worked to set standards for nursing education and clinical practice.

Many healthcare facilities continue to face issues such as staff shortages, heavy patient workloads, and limited resources. These limitations may limit nursing students' opportunity to actively participate in clinical care, compromising their competency and preparation for professional practice. As a result, it is necessary to analyze how these elements affect nursing students' roles in the clinical learning environment. This study will help to fill this

gap by collecting data on nursing students' real duties and the factors that influence these roles.

Theoretical and practical aspects of nursing education are frequently divided rather than integrated as a whole. This is especially true in modules such as fundamentals of nursing practice, which is taught in class, and the skills laboratory in the first and second semesters of the first year of training. The practical aspect comes one year later after their first clinical placement. This may have a negative impact on both patient outcomes and incompetent nursing practitioners.

Qualified nurses may be concerned that these nursing students would be unable to meet their clinical objectives. There have been no studies conducted in this country to examine the state of clinical education setting for undergraduate nursing students. A rising body of research shows a link between clinical learning environment quality and nursing students' satisfaction and overall well-being (Zhang et al., 2022). Although studies give significant empirical support for the importance of well-structured practical learning environments for the welfare of nursing students, few have examined the impact of clinical learning environments on student outcomes in Kenya. The restricted research cannot provide a good understanding of clinical experiences or how these environments may influence the students’ future career decisions.

Although many studies have been conducted on the problems encountered by undergraduate nursing students in the clinical learning environment, there is a lack of information on the overall situation, which includes the roles of people who are part of the clinical learning environment, the opportunities available in the clinical learning environment, the challenges, and the strategies that can improve nursing students' learning.

It is critical to assess stakeholders' understanding of their roles, possibilities in the clinical learning environment, obstacles encountered in the clinical learning environment, and suggestions for improving undergraduate nursing students' clinical training.

The actual scenario in the clinical learning environment is only accessible to nursing students, nurse preceptors, nurse educators, and administrators who are actively involved in nursing students' clinical training. This analysis provides for the monitoring of the clinical learning environment in which nursing students complete their clinical experience, as well as the relationship between numerous characteristics and the intention to work as a nurse after graduation.

The selected health facilities provide an acceptable setting for this study because they offer a structured clinical placement program that exposes students to a wide range of patient scenarios and interprofessional interactions. It also addresses frequent issues in clinical education, such as limited resources, large patient numbers, and competing needs for service delivery and teaching. The existence of various stakeholders provides a rich setting for exploring roles, collaboration, and supervision in clinical learning. Furthermore, the health facilities' commitment to supporting clinical nurse training assures that the findings will not only fill existing gaps, but also contribute to ongoing efforts to improve clinical education and patient care outcomes.

No published research have simultaneously investigated undergraduate nursing students' opinions of successful teaching environments in clinical settings from several nations.

1.7 Significance of the Study

Practical skills are at the heart of nurses' professional activity, and mastery of nursing clinical skills is an essential component of the nursing profession. Nursing students must

apply theory to practice in the clinical setting, gain the requisite technical and interpersonal skills, make clinical decisions, become socialized into the profession, and begin to grasp values and ethics. As a result, this study was significant in several ways:

First, they will provide guidance to nursing educators and training institutions on how to improve clinical teaching methodologies and student supervision. The data obtained on opportunities can be used to ensure that the strengths are reinforced to provide quality clinical practice placements in order to develop competent and confident professional nurse.

Second, they will advise policymakers and regulatory authorities on how to strengthen clinical education policies and standards. The data obtained on challenges encountered can also be used to address the identified gaps by universities and hospitals used for clinical learning by undergraduate students to develop models of supervision and evaluation appropriate for clinical learning and help nursing educators and clinical instructors to manage clinical learning situation in a more effective manner hence ensuring students function competently after completing their training.

Third, healthcare institutions will get insights into how to build a friendly clinical atmosphere that promotes student learning. The findings can be helpful in planning and implementing the induction of stakeholders on their roles to ensure that clinical learning environment is appropriate and quality for clinical training.

Finally, increasing nursing students' roles and experiences in clinical settings will help to prepare competent nurses and provide high-quality healthcare services. The data obtained on strategies can help to build on existing potentials and resolve the issues that represent barriers for creating interesting and effective learning environment.

1.8 Theoretical Framework

This study was guided by Kolb's experiential learning style theory, which contends that "learning is the process whereby knowledge is created through the transformation of experiences" (Kolb, 1984:38). Kolb's experiential learning model emphasizes the importance of experiential activities in the learning process, which is where human development happens. Figure 1.1 depicts the four stages of learning.

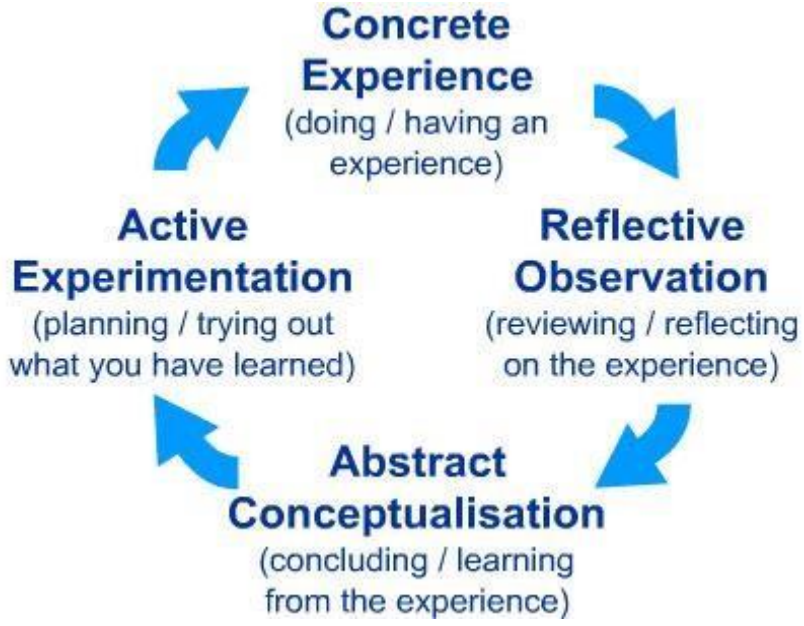

Figure 1: Kolb Experiential Cycle (1984)

Attending a class, going on a field trip, engaging in an interaction, or simply demonstrating a skill or technique could all count as experience. The event evokes feelings rather than thoughts, and problems at this stage are solved intuitively rather than systematically, scientifically. Concrete experience provides the foundation for observation and thought, from which concepts are internalized and actively challenged (Kolb, 1984). Reflection on the experience refers to becoming aware of the experience, recalling and detailing the

experience, and gaining new knowledge about it. David Schön was the first to introduce the concept of reflection into education.

The argument is that professional practice is the use of theoretical principles to address difficulties. Theory and practice should so be viewed equally. An attitude toward reflective observation is based on carefully observing and objectively characterizing concepts and circumstances in order to comprehend their meaning. The emphasis is on comprehension rather than practical application (Kolb, 1984). The reflector's practical experience has a big influence on their capacity to reflect on practice (Landmark et al, 2003). Students can collect information on an experience while it is happening or after it has occurred.

Reflection can take numerous forms, for example individually or in groups, written or oral, in an organized and unstructured fashion. Reflective observations allow students to learn more in-depth way that promotes practice, a new way of doing something, clarification of an issue, the growth of a skill or the resolution of a problem.

Abstract conceptualization is the process of determining the meaning of an experience, comparing and exploring potential connections between the reflected experience and previous past experiences, and connecting this to theoretical knowledge or attitude. An inclination toward abstract conceptualization emphasizes the use of logic, ideas, and concepts. The emphasis is on thinking, rather than feeling and understanding intuitively. The emphasis is on developing theories and addressing issues using scientific methods (Kolb, 1984).

An approach to active exploration focuses on practical application rather than reflective comprehension. Students at this stage prioritize doing above observing (Kolb, 1984). Students investigate the significance of concepts and theories in solving issues and making

decisions in current settings. These, in turn, lead to new experiences, resulting in the integration of theory and practice. Learning occurs when a student applies one or more of the four learning models to solve an issue. To promote successful learning and the integration of theory and clinical practice, the experiential learning cycle must be completed. Students should be guided through the many stages of the cycle to ensure that important connections are made between them. In this method, students will be able to make connections between theory and clinical practice.

Students acquire preferences for adopting one learning mode over another, which is known as their learning style. It is critical for educators to assess and understand their students' learning styles since this allows both educators and students to build a more constructive and effective connection, which is crucial in any teaching/learning situation. Kolb (1984) identified four types of learning styles: convergent, divergent, assimilative, and accommodative, which are influenced by genes, life experience, and the environment.

1.9 Conceptual Framework

The study adopted the Dickoff's mentorship model (1968) to classify concepts and place them in a conceptual framework. This model provides a structured framework for analyzing the clinical learning environment. It Helps identify who is involved in clinical teaching, where learning takes place, how learning occurs, factors affecting learning, and desired educational outcomes.

This framework guided data collection, analysis, and interpretation by illustrating that roles, opportunities, challenges, and strategies influence the situation in the clinical learning environment. However, intervening variables such as student motivation, coping strategies, peer support, preceptor/instructor engagement, and organizational leadership may either enhance or hinder students' clinical experiences and professional preparedness.

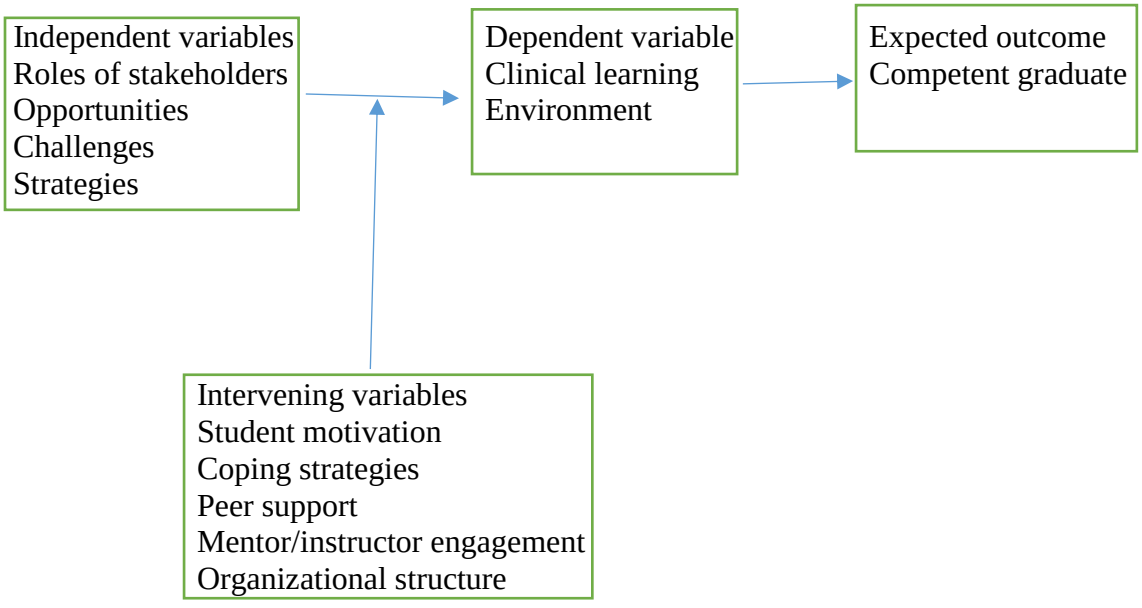

Figure 2: Conceptual Framework (Dickoff's Framework, 1968)

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction to the Chapter

Based on the objectives, this chapter reviewed the following areas: background information on clinical nursing education, the role of stakeholders in the clinical learning environment, opportunities promoting clinical learning, the challenges encountered by stakeholders in the clinical learning environment, possible strategies to improve the clinical learning environment and summary of the literature reviewed.

2.1 Background Information

Nursing is one of the most important specialties in the health care team, with different positions in various fields. A badly trained nurse may not only reduce the team's performance, but also result in poor quality health treatment (Koschmann, 2020). Nursing education combines theoretical and practical instruction. Clinical training is regarded as an essential part of professional nursing preparation. The clinical part of nursing education prepares students for roles such as care, education, and rehabilitation through the establishment of circumstances and a real-world environment. clinical experiences can impact the outcome and future career choices of nursing students. (Zang et al., 2022),

Fundamental reforms to healthcare systems involves professional training for nurses, which influences their behavior, interests, and nursing opportunities in health care. Undergraduate nursing students spend more than half of their nursing education in a clinical learning environment, but this does not ensure the quality of training because numerous variables, including students, staff, patients, and environmental factors, influence learning outcomes (Wehabe et al., 2024)

These characteristics must also be discovered and assessed to ensure that the therapeutic environment is beneficial and effective for learning. The mismatch between how new nurses envision their role and what they actually experience in clinical practice can result in role confusion and make the shift into professional nursing more difficult. With rapidly evolving healthcare systems, there is the risk of the healthcare personnel preparation being obsolete (Hakvoort et al.,2022).

The clinical learning environment is an important part of nursing education because it allows students to apply theoretical information and acquire professional competencies. Situational analysis of the clinical learning environment for nursing students assesses physical locations, interpersonal relationships, pedagogical climate, and organizational culture in a healthcare facility. It identifies crucial barriers and facilitators that have a direct impact on students' clinical competence, professional confidence, and academic performance. (Bsharat et al. 2025).

Key stakeholders are expected to play many roles in this setting; however, the effectiveness of these responsibilities is heavily influenced by the quality of the clinical learning environment. According to Bsharat et al. (2025), a favorable pedagogical atmosphere and supportive supervisory relationships significantly improve nursing students' clinical learning.

Globally, data suggests that nursing students frequently experience obstacles in clinical settings, such as insufficient supervision, restricted learning opportunities, hostile attitudes from staff, and ambiguous job expectations. These difficulties can impede skill acquisition, erode confidence, and jeopardize students' readiness for autonomous practice. The WHO

underlines that improving clinical training is critical for developing a competent nursing workforce, although gaps in clinical education exist in many areas (WHO, 2020).

A situational analysis of the clinical learning environment for nursing students in Africa regularly reveals a severely damaged training landscape. Research in Ghana, Ethiopia, and South Africa has shown pervasive issues such as acute resource shortages, overcrowded wards, insufficient preceptorship models, and persistent gaps between classroom theory and clinical practice (Ayalew, 2025). A study in Uganda discovered 73.4% prevalence of clinical challenges, indicating that instructor shortages and a lack of clinical materials are common issues in East African nursing programs (Quayson et al., 2024).

Despite efforts by regulating agencies such as the National Council of Kenya to standardize nursing education and clinical practice, concerns about the clinical learning environment persist. According to reports, staff shortages, high patient workloads, and limited resources may limit students' engagement in important clinical activities, sometimes relegating them to observational roles rather than active contributors to patient care.

Furthermore, variations in supervision and mentorship can result in confusing role expectations and poor learning results (Ndung, 2022).

Ambiguous roles for stakeholders in clinical learning environments, combined with multiple challenges, can lead to confusion, aimlessness, unclear expectations, and insufficient job definition for all stakeholders engaged. This can also mean that nursing students miss out on valuable clinical training (Munangatire, 2022). Although nursing students play an important role in healthcare delivery during their training, there is a lack of empirical data on how their roles are defined, perceived, and implemented in clinical settings, particularly in Kenya. This gap makes it difficult to determine whether current

situation in clinical learning environment adequately supports students' preparation for professional practice or meets the required standards of nursing education.

In that scenario, the purpose of this study was to assess the situation in the clinical learning environment, with a focus on stakeholder roles, accessible learning opportunities, problems encountered, and solutions for improving clinical learning for undergraduate nursing students. The findings are expected to inform improvements in clinical training, enhance student learning experiences, and ultimately contribute to the delivery of high-quality nursing services.

2.2 Role of Stakeholders in Clinical Training of Undergraduate Nursing Students

Nursing education is based on the integration of theoretical knowledge and clinical practice, hence the clinical learning environment is an essential component of nursing training. Nursing students move from classroom instruction to real-world healthcare settings, where they apply information, acquire skills, and take on professional responsibilities under supervision. The clinical learning environment includes locations such as hospitals, health centers, and community institutions where students can acquire hands-on experience with patient care. These settings are vital for fostering clinical competency, critical thinking, and professional identity (Al-Worafi et al., 2024).

According to WHO, boosting health workforce training through effective clinical education is critical to improve healthcare quality and patient outcomes. Thus, nursing students actively participate in healthcare delivery while also learning (WHO, 2020). Nursing education has undergone substantial revisions around the world, including in Kenya, to better meet the needs of modern healthcare. Regulatory authorities, such as the NCK, guarantee that criteria for clinical training and supervision are upheld in order to

create qualified graduates. These frameworks emphasize the importance of explicitly defined duties for nursing students in clinical settings. Emphasis has been placed on competency-based curricula, evidence-based practice, and patient centred care.

Beginning nursing students typically follow rules hence showing a rigid behavior that is controlled. Clinical instructors provide norms to ensure safe performance until the content taught is well understood. When students practice new procedures frequently, they acquire the confidence needed in their abilities. This helps them move from knowing how procedure is done to why it is done. Evidence-based practice should be used to train students to provide care to the patients (Essfadi, 2024).

Socialization is another important factor in the preparation of a student nurse to become a novice nurse. Socialization takes place throughout the training period as well as from familiar to unfamiliar work context. It takes place when students observe what is going on in the clinical learning environment as nurses perform procedures and communicate with other team members. This contributes significantly to the development of professional behavior and interpersonal relationships (Bradshaw et al., 2021).

When establishing an optimal teaching environment, numerous elements must be considered, including curricular objectives, the learning environment, clinical instructor experience, and student individual characteristics (SoFoush et al., 2021).

2.2.1 Role of Undergraduate Nursing Students in Clinical Training

The registered nurse's scope of practice is based on a set of governing principles that guide their decision-making while practicing. The student nurse scope of practice is a task-oriented set of criteria that allows the student nurse and preceptor to focus on improving knowledge and skills learned at university in order to gain clinical competence. While the

requirements are task-oriented, students should put effort towards provision of comprehensive care to the patients (NCK, 2022).

Nursing students' first responsibility is to be constantly informed of their scope of practice. This is outlined in the scope of practice guidelines by the Nursing Council of Kenya. If they are assigned tasks beyond their scope of practice, they should be able to decline and notify the nurse preceptor or nurse educators. Nursing students should identify themselves to patients and their families at the outset of each shift, clarifying their roles and requesting permission and agreement to participate in the care. Nursing students should also ensure that they have the necessary education to provide care to the patient directly under supervision (NCK, 2022).

During and prior to the placement, students should be able to fulfill their own learning objectives as determined by their university. Nursing students are required to exhibit a receptive and positive attitude when they are given constructive feedback as stated by Zhang et al., 2022). They should talk about their plans for the day and notify their preceptor before performing any care under indirect supervision. Before providing direct patient care, nursing students should be willing and prepared to discuss patient assignments and express relevant knowledge. Nursing students must explicitly convey their particular syllabus objectives and clinical limits to the care team, changing the clinical block into a personalized, self-directed learning experience (Saka et al., 2026).

They should be willing to discuss the reasoning and outcomes of all tasks completed throughout the placement with their preceptor. It is critical that they communicate all findings and outcomes back to the preceptor after providing care. Any complaints or

concerns about clinical placement should be addressed with the assigned preceptor or nurse educator. (Bradshaw et al., 2021).

Nursing students are responsible for translating abstract evidence-based theories from university lectures into real-world patient care at the bedside. Clinical learning environment placements allow students to improve their abilities, engage with professionals, and bridge the gap between academic and workplace learning. This allows individuals to bridge the gap between abstract, theoretical information and the acquisition of practical skills and competence (Alammar et al., 2020).

According to the Nursing Council of Kenya's (NCK) minimal standards and guidelines for clinical learning, nursing students must offer clinical patient care in accordance with the medical plan of care, conduct health assessments on patients, and receive and provide verbal reports on their patients. They should admit and prepare patients for discharge, give medication as directed by the doctor, and communicate with doctors and other health care providers about the patients' circumstances. They should also provide emotional support to patients' families, document care delivered to the patient, and educate individual patients in accordance with standard nursing practice and medical plans of care (NCK, 2022). This indicates that undergraduate nursing students play a role of caregivers in the clinical learning environment. They serve as vital safeguards on the ward, adhering strictly to current infection control, medication management, and patient rights protocols under license supervision (Alammar et al., 2020).

Nursing students learn and master professional care, situational knowledge, competency, and clinical skills through hands-on experience in the real world. Nursing students require more than standard theoretical classroom instruction because there is so much in the

nursing sector that can be learnt through doing rather than just talking. Clinical practice improves nursing students' understanding and capacity to integrate academic knowledge and nursing care (Alammar et al., 2020).

Assuming responsibility for one's own learning and recognizing the relevance or value of material to be learnt is a very significant role of the nursing student in the clinical learning environment. According to contemporary frameworks, students who actively question clinical variables rather than passively obeying directives earn much higher critical thinking benchmarks (Hammad et al., 2024).

Since nursing students view nursing as a career, they strive to be proficient in the skills necessary during their training. As consumers, adult students must believe they are getting the most out of their learning experiences. As learners who are preparing to be future nurses, they have to be convinced that they are learning a lot during their clinical rotation. However, they must take the initiative to learn for empowerment that leads to empowerment in all other aspects in their professional lives (Bradshaw et al., 2021).

In addition to providing nursing care, temperament for effective learning in the hospital setting include exercising good judgment based on the patient's test results, instructor input, and nursing assessment in order to provide appropriate nursing care, maintaining a professional demeanor, and remaining visibly calm under a variety of life-threatening and emergency situations where emotional stability is required. According to the literature, the student role entails actively assessing clinical data to develop high-level problem-solving and decision-making abilities, rather than just performing psychomotor tasks such as wound care (Mirzanezam et al., 2024).

Nursing students are also required to collaborate closely with others and communicate with patients in a compassionate, professional manner in order to provide emotional support and knowledge. They are expected to learn in variable and constantly changing situations, to be adaptable in responding to emergencies, to prioritize tasks, and to not pose a threat or significant risk to the health and safety of patients and others in the clinical environment (University of Pittsburgh, 2023).

It is the nursing student's obligation to secure patient assignments. When nursing students are on the ward, the clinical instructor or mentors will assign them patients. The assignment will include the names of the patients that the nursing student will be responsible for on that particular day. The clinical instructor will expect the nursing student to first comprehend the diagnoses of the selected patients, which includes understanding their medical problems and the therapy they require (ecpi university, 2023).

Nursing students should also obtain the patient's consent before caring for them, as some patients may be uncomfortable with nursing students' assistance. Documentation of all medical data, including the patients' illnesses, treatment plan, medication list, symptoms, signs, medical history, and nursing care offered, is critical. Furthermore, students become acquainted with the realities of their profession and nursing functions in a clinical learning environment. They act as a therapeutic agent by building empathetic, humanistic, and respectful relationships with healthcare consumers to ensure patient-centred care delivery (Bsharat et al., 2025).

Nursing students put their classroom learning into practice by participating in clinical rotations supervised by a nursing clinical teacher. Nursing students are expected to promote, maintain, and recover patients' health by adhering to precisely defined hospital

procedures. (NCK, 2022). Nursing students are acknowledged as active agents who must navigate clinical difficulties, bridge academic theory with practice, and manage their professional socialization, rather than passive recipients of task-oriented instructions (Mirzanezam et al., 2024).

Educational adaptation can be defined as a favorable attitude towards educational goals and efforts to achieve academic achievement. Nursing students should adapt to the clinical learning environment in order to progress in their studies. Furthermore, nursing students should be able to communicate effectively with patients and build sympathetic relationships, emphasizing the importance of clinical education in promoting academic adjustment. Academic adjustment causes individuals to align with the conditions and requirements of their educational environment. This change can improve self-efficacy, academic resilience, and students' mental health (Zorach et al., 2023).

Students are also expected to give written write-ups on their clients under the guidance of the clinical instructor. During the clinical rotation, the student should be kept engaged with procedures that help them learn to provide care to the patient like a qualified nurse. Reflective writing is one way to provide students with feedback on critical thinking. Students are also expected to write reflective journals and submit to strengthen their clinical thinking skills. Students should update the clinical instructor when they finish conducting procedures (Bradshaw et al. 2021).

Documentation is absolutely important and must be done after every procedure carried out in the hospital and it must be correct, accurate and timely. Procedures like administration of medication to the patient give the student a chance to practice what was learned in class and practiced in the skills laboratory (Bradshaw et al., 2021).

Another role of a nursing students is to set individual learning objectives at the start of each day. This should be discussed with the clinical instructors before embarking on the provision of care. After the approval of these objectives, the students with the help of the clinical instructor should look for procedures that can enable them to achieve those objectives. The student should actively participate during clinical learning for it to be successful (Saka et al., 2026). Other than setting daily objectives, the student should contact the nurse preceptor when they encounter challenges in accomplishing those objectives, when new assignments are not clear or when they are uncomfortable performing an assignment given (Bradshaw et al., 2021).

2.2.2 Role of Nurses Preceptors in Clinical Learning Environment

The goal of preceptorship is to help the students learn the expected skills and be competent nurses when they graduate. Clinical preceptors have a dual role in caring for patients and trainees. Practice-based preceptorship has traditionally been a cornerstone of health profession education (Bradshaw et al., 2021).

The nurse preceptor instructs students on nursing care of patients by teaching, mentoring, and guiding them. The students then learn new roles within the clinical area using clinical learning objectives students have set with the aid of the nurse preceptor or nurse educator (Tadesse et al., 2024). This helps students to apply what they've learned. The nurse preceptor is responsible for ensuring that students employ high-level thinking abilities during their final two semesters of training (Mirzanezam et al., 2024).

The preceptor and the nursing students collaborate as clinical learning progresses to facilitate achievement of clinical learning objectives. This makes it easier to accept the

organizational culture, ethical principles, and professional behavior required to develop a unified professional identity (Hammad et al., 2024).

Preceptors teach and guide students' clinical skills, such as medication management, wound care, and patient evaluation. They assist students improve their nursing care plans and prioritize patient care. They design learning activities that are appropriate for the learner's current level (Bradshaw et al. 2021).

The preceptor model is predicated on the premise that a regular one-on-one interaction facilitates socialization into practice and bridges the gap between theory and practice. The clinical preceptor plays a critical role in developing nursing students' clinical knowledge and abilities, as clinical practice is a big component of their educational experience. Furthermore, preceptors must continually improve their ability to apply theoretical knowledge and abilities in the practical context (Alammar et al., 2020).

The preceptor, in collaboration with other healthcare team members should establish a set of precepting goals and expectations. During the first meeting between the preceptor and the nursing students, goals and expectations for the experience should be discussed and worked out into a mutually agreed-upon plan with a time range for completion (Woo et al., 2020). Participation in nursing activities in the clinical setting gave possibilities for registered nurses to teach nursing students. These clinical nurses might answer nursing students' queries or provide direct guidance in the performance of nursing tasks.

Preceptors guide nursing students through problems and help them develop professional attitudes and actions. Step aside and observe the patients as they acquire management techniques. In this case, the preceptor's competence is called into play, which includes knowing when to hover close to the preceptee and when to let the learner exercise

independently. As the patient dynamic changes, so will the preceptor's decisions about the novice's autonomy (Bradshaw et al., 2021). When a patient's condition is acute or changes unexpectedly, the preceptor collaborates closely with the learner to give treatment, make assessments, and plan with the rest of the health care team. When the patient is well-known to both the preceptor and the learner and is in stable or improving condition, the preceptor may choose to go over the plan of care with the learner before observing and evaluating the learner's ability to implement it (Bradshaw et al., 2021).

Furthermore, precepted clinical experiences allow students to display true leadership while also practicing communication and teamwork abilities. When students watch others work as a team, they get a better understanding of the hospital behavior and contemporary challenges. Students in clinical education can gain a genuine understanding of how professionals handle team responsibilities and difficult situations. Clinical education also demonstrates learning as a situated experiential process. The situated cognition paradigm draws on anthropology, sociology, and cognitive science ideas (Bradshaw et al., 2021).

Nurses play a very significant managerial role. Nurses claimed to be accountable and effective in assisting students in adapting to a clinical environment, viewing them as team members. Students benefit from becoming acclimated to working in the clinical setting and adjusting to the clinical environment (Mikkonen et al., 2020).

Preceptors aid students in terms of student’s capacity to integrate classroom theoretical knowledge with actual clinical practice in a health care company. In addition, the preceptor can provide specific attention and direction to improve the learner’s clinical competence and confidence. Schools also gain from preceptorship experiences since students rely less on faculty members when preceptors function as clinical instructors. In this technique, a

faculty member can better supervise a group of students by working together with precentors (Bradshaw et al., 2021).

The preceptor serves as a mentor for the learner who has left behind familiar environments and support systems and must establish a new firm foundation on which to flourish as a future nurse (Bradshaw et al., 2021). Mentoring nursing students is an important duty for nurse preceptors in the clinical learning setting. Today's nursing students must have the opportunity to work with practicing nurses in order to make informed career decisions in the future (Rodriguez-Garcia et al., 2021).

Preceptors act as role models in the clinical learning setting. They model professionalism, compassion, and clinical abilities, motivating students to strive for excellence in nursing practice. Showcase clinical talents in real time. Preceptorship gives students an excellent opportunity to learn the nursing practice in the real healthcare environment since it is the initial step for novice nursing students to transfer the theory they learned in class to practice. This helps them socialize into new roles (Bradshaw et al., 2021).

Preceptors should be aware of a student's goals and objectives in order to support planning, track progress, and record performance. Preceptors, through role modelling, assist student nurses in developing the various skills required to perform as health professionals. Sharing clear preceptorship expectations helps to ensure a successful experience. The preceptor approach is suitable for a variety of prelicensure and graduate health professional programs because it bridges the gap between the classroom and the clinical setting (Bradshaw et al., 2021).

They must be partners who provide assistance, direction, motivation, facilitation, problem solving, troubleshooting, monitoring, and evaluation. Preceptors seek to establish a safe

and meaningful interactive relationship with their students. The primary technique of training is role modelling patient care skills, which range from interpersonal reactions to assessment and diagnosis, then intervention and evaluation. Ongoing explanation for each action educates the student of the logic behind the preceptor's decisions. In addition to modeling practice at the bedside, the preceptor demonstrates communication and decision-making skills with the patient, family, and multidisciplinary team (Mirzanezam et al., 2024).

As the experience unfolds, the preceptor teaches the student how to provide direct patient care, use technology, connect with the interdisciplinary team, and utilize the resources available in the workplace. The preceptor may prepare the preceptee for encounters by role-playing them beforehand. For example, the preceptor may have the preceptee review the strategy for engaging in patient care rounds ahead of time or practice providing a clinician-to-clinician report before the shift ends (Bradshaw et al., 2021).

Along with teaching at the bedside, the preceptor exposes and socializes the preceptee to the work environment to help them transition from student to professional clinician. The preceptor teaches the preceptee to the unit's culture, staff values, official and informal responsibilities held by staff members, and the formal and informal norms that govern how the unit operates. Preceptors teach fundamentals such as how the schedule works and how to use the hospital communication system, as well as how to deal with the realities of the health-care environment (Hammad et al., 2024).

When dealing with new nursing students, the preceptor, with the cooperation of unit leadership, should try to set some time for reflection. While this is difficult in a fast-paced clinical setting, it serves numerous critical functions. Time away from the chaos of the unit

allows the preceptor and student to reflect on the patient experience and explore in greater depth how and why specific patient care decisions were made. Perhaps most crucially, this time allows the learner to reflect on ideas and feelings about what happened to the patient, how care was provided, and what lessons might be applied to future care. (Bradshaw et al., 2021).

Advocacy is another role of preceptors. They advocate for nursing students' achievement and suggest tutoring services for struggling pupils to ensure a stable and professional future. The nurse preceptor is responsible for documenting and providing comments to all students for patient safety. Preceptors play an important role in the transfer of student learners. As learners' advocates, preceptors play an important role in bridging the gap between academia and 'real world' patient/nursing care (Bradshaw et al., 2021).

Preceptors also have the role of assessing and evaluating nursing students in the clinical learning environment. They evaluate students' academic performance, providing feedback on their strengths and areas for development. Formally evaluate proficiency as the student progresses.

The nurse in the clinical learning environment is responsible for evaluating nursing students in all areas of the clinical setting. The evaluation must continue to help these nursing students learn and determine learning outcomes (Adam, 2021). Following each patient engagement, nurse preceptors should provide constructive and timely feedback giving helpful comments that fosters performance and growth is critical in the therapeutic learning setting (Cusack et al, 2020).

2.2.3 Role of Nurse Educators in Clinical Learning Environment for Undergraduate Nursing Students

The nurse educators oversee the clinical instruction of students using their practical experience of teaching. They translate didactic content into applications for healthcare aiding nursing students in putting theory into practice as well. In the clinical context, clinical learning activities are often planned and selected by the nurse educators (Bradshaw et al., 2021).

The nurse educators have diverse roles that are challenging depending on the situation encountered. For this reason, they are required to be competent and capable of balancing teaching to suit the situation. Since clinical learning for nursing students focuses on knowledge application, skill and professional development, the nurse education must be conversant with what students learned in theory in order to facilitate application of the same. The instructor is critical in helping students understand and find meaning in clinical practice (Adam, 2021).

The nurse educator should be concerned with helping nursing students reach their full potentials as nurses. This could be accomplished by fostering positive relationship, counselling, supporting, and guiding. They must exhibit skill in patient care. Creating and maintaining professional boundaries with students while staying current in practice, teaching, and adopting evidence-based practice is both an art and a science (Tadesse et al., 2024).

At the beginning of the clinical day, the instructor will review the student's preclinical preparation and determine whether there are any gaps or inconsistencies for care. The student will receive a report from the primary caregiver assigned to his or her patient and

assume care within the context of the agency guidelines and clinical assignment (Bradshaw et al., 2021).

Nurse educators guide and support nursing students throughout clinical assignments, assisting them in developing professional abilities and attitudes. In the outcome-focused approach, the nurse educator mentors students in decision-making and critical thinking in patient care since this is the foundation of total nursing care. Emphasis on application of skills is appropriate when students are starting their clinical learning while decision-making and critical thinking become much needed as the student progresses with their training program (Bradshaw et al., 2021).

Maintaining a calm demeanor, being supportive, and acting as a resource person all help to reduce student anxiety and build the instructor-student relationship. The educator who intends to develop student independence may serve as a resource person by being visible when needed in the wards. A nurse educator whose emphasis is on organizing and finishing procedures assigned will ensure they are at the students' side providing the students to ensure the procedures are completed within the set time frame (Bradshaw et al., 2021).

According to Mathisen et al., (2023), lecturers are responsible for preparing students to provide competent and compassionate care after graduation, as well as to negotiate future system changes and learn future skills associated with evolving jobs. As information providers, educators must remember that incentive and excitement are the most effective ways to promote learning. Students and instructors agree that effective learning requires atypical tactics such as collaborative or cooperative learning, active involvement, and participation in the learning experience (Cusack et al., 2020).

It is also the clinical instructor's obligation to complete all mandatory agency orientation and be familiar with agency regulations and procedures. When students and teachers follow agency requirements, they will maintain a good rapport with the instructor and the clinical location. This shows respect for the agency while also providing students with opportunities for professional development (Bradshaw et al., 2021).

Effective collaboration between nursing faculty and staff nurses is critical to improving student learning experiences. Faculty members must comprehend and adapt to the tasks of staff nurses in order to support improved learning results. Clinical nurses and preceptors are primarily responsible for teaching students in the clinical setting. Faculty from universities also have certain days when they visit the clinical learning setting to teach their students (Bradshaw et al., 2021)

Nurse educators must be in charge of clinical learning since they are ultimately responsible for what happens in the clinical learning environment. Clinical instruction is provided by nurse educators who collaborate with clinical nurse preceptors in clinical learning domains. The faculty educator's purpose is to spend more quality time guiding the educational process and ensuring that the intended learning outcomes are met for the students. (Tadesse et al. 2024).

Nurse educators serve as the link between practice and education tracking how successfully nursing students complete their tasks and achieve results. Faculty and preceptors share responsibility for evaluating students. Instructors cannot just drop students off at a unit or a clinical agency and trust the staff to do all the teaching. Staff nurses value a teacher who is present, works as a team member, is experienced, easygoing, and organized. One aspect of orientation is informing employees about their obligations (Bradshaw et al., 2021).

The faculty member serves as a liaison between the preceptor, student and clinical site. Faculty should offer the preceptor with an overview of course goals, objectives and student learning outcomes. It is critical to adhere to agency policies concerning the procedures in which students may or may not participate (Panda et al., 2021).

Communication should take place consistently on regular basis during the clinical instruction of nursing students, directly or indirectly when issues emerge. The role of the nurse educator is to guide students and nurse preceptors in relation to expected learning outcomes for a successful clinical learning experience. The nurse educator may visit the hospital to discuss the learning objectives, check clinical progress of the students and provide emotional support to both students and nurse preceptors (Bradshaw et al., 2021).

Nurse educators play an important role in clinical teaching by ensuring that students have adequate clinical experiences that combine academic knowledge with practical application. The nurse educator plays a significant role in giving appropriate knowledge that is relevant to the clinical part. The most crucial responsibility of the nurse educator is to help students learning especially in situations where the students is not sure of how to perform a procedure. The nurse educators should make learning a continuous and exciting experience for the students. Clinical teaching members' tasks might be summarized as skilled and experienced nurses who maintain and improve patient care standards (Tadesse et al., 2024). The nurse educators are expected to plan and select clinical learning activities based on the actual teaching because this has a significant impact on the success of their clinical experience, as evaluated by learning outcomes and an internalized sense of fulfilment. This also reflects the roles the nurse educator chooses to accomplish. Many nurse educators may consider their roles as interacting with students, influencing their learning by role

modelling and consultations (Hobbs et al., 2024). The nurse educators during instructions should also keep abreast with current nursing knowledge, display interpersonal relationships and positive personality for them to be approachable.

Many nurse educators find these activities as important in the clinical learning of students hence the need for meticulous planning. Engaging students in multiple experiences from time to time helps them comprehend and piece together numerous activities in different situations. As a facilitator, the nurse educator attempts to give the students a situation that is real and encourage evidence-based nursing practice, while respecting each student's uniqueness. The nurse educators is the best person to assign students those activities, which can prepare the to work in a dynamic healthcare system (Bradshaw et al., 2021).

Some subtle roles of a nurse educator in the clinical placement include empowering students and encouraging them to be accountable by adopting a more supporting position for each student rather than a prescriptive one. To foster independence in pupils, the instructor must be willing to relinquish some authority in order to allow them to study and grow (Anderson et al., 202). When a nurse educator recognizes students' safe and confident performance, they become more confident when providing patient care.

Maintaining quality assurance in a clinical learning setting is critical. Nurse educators are responsible for providing high-quality clinical experiences to students while also ensuring that clinical practice opportunities are relevant and safe. As a result, the educator should have a solid understanding of learning and teaching, as well as a wide range of effective ways for achieving learning objectives. Instructors must be acutely aware of their own teaching style and know how to adapt it to the conditions (Mirzanezam et al., 2024).

Patient safety is the most important consideration while documenting student abilities. For example, a student may go through a sequence of skill stations to perform a specific skill, such as bandaging or interviewing, while a faculty member observes and follows a rubric of needed actions. If the student performs well, the teacher may validate the practices. If students do poorly, corrective action can be implemented to enhance their skills before patients are put at risk (Bsharat et al., 2025).

It is the clinical instructor's responsibility to enforce professional standards such as tardiness, absence, and dress code. Consistency among professors in enforcing standards like these gives students with a consistent approach and allows for the gradual adoption of these professional behaviors (Bradshaw et al., 2021).

Most institutions have an honor code. It is the clinical instructor's responsibility to understand and follow the policy, as well as to report infractions in a timely way. As a result, when students choose to engage in academic dishonesty, it becomes the educator's responsibility to determine if the student can learn to think with a moral compass. If the response is no, the student is unable to behave ethically, and hence cannot graduate and work in the health profession. Altering charts or failing to report a mistake may lead to negative effects for patients. At times, this abnormal conduct may indicate indicators of a more serious problem, such as clinical dependency, which can lead to dangerous patient care (Bradshaw et al., 2021).

Both agency and educational institution policies may address reporting guidelines and student chemical testing. It is critical for health practitioners to study this moral growth before beginning practice. It is the clinical instructor's obligation to evaluate each student's

readiness to provide safe patient care prior to the start of the practical experience (Alammar et al., 2020).

If the instructor determines that the student is not adequately prepared, he or she may choose to dismiss the student from the clinical setting to prevent a breach in patient safety. A breach in patient safety is frequently a critical point for failure in the clinical course. An example of this type of breach of safety is a student arriving unprepared for medication administration (Bradshaw et al., 2021).

Nurse educators frequently serve as preceptors, evaluating students' learning needs, designing learning experiences, and showing best practices to help students with their clinical practice. In the clinical context, clinical learning activities are often planned and selected by the instructors. The nurse educator should ensure that clinical learning is student-centred helping students apply theory to patient (Bradshaw et al., 2021).

They can also help nursing students build self-confidence and improve their learning outcomes. As a result, a clinical educator may help the student minimize anxiety while also promoting the student's ability to use energy creatively and attain learning objectives (Mirzanezam et al., 2024).

The clinical educator should be concerned with helping students reach their full potential as nurses. This could be accomplished by fostering positive relationships, counseling, supporting, and guiding. They must exhibit skill in patient care since the patient's life or well-being may be at stake. They must also demonstrate teaching skills, provide a pleasant learning environment, and be aware of learning possibilities on the ward (Hammad et al., 2024).

Students' clinical competencies are often assessed at the conclusion of each semester in the clinical learning setting, utilizing standardized evaluation instruments. These exams are administered by university academics and clinical nurse preceptors and are often scored using the NCK's grading methods (NCK, 2022).

Faculty are responsible for cultivating empowerment and influencing learning outcomes. As a facilitator in a learner-centered environment, the faculty member or mentor can customize and adjust situations to produce deep learning outcomes (Bradshaw et al., 2021). The responsibility as educators is to encourage learning by creating an environment conducive to learning. It is critical to maintain an open and continual discussion with students throughout the educational experience.

Clinical teachers can improve their students' pleasure in the clinical situation by offering explicit instructions, giving individualized attention, and staying organized. Keeping thorough anecdotal notes and documenting the student's progress (or lack thereof) toward completing the course objectives helps to make the final evaluation process less subjective. Giving students specific good examples, as well as examples of omissions or errors, might assist them develop reflective practice (Bradshaw et al., 2021).

In addition to focusing on the nursing function, interpersonal interaction opportunities should be pursued in the clinical situation. An astute clinical instructor uses clinical rounds to urge students to participate in the delivery of real-time treatment. The teacher can provide guidance and/or gentle urging about additional resources for the teaching/learning event, as well as role modelling at the bedside (Bradshaw et al., 2021).

The type of clinical decisions that students make utilizing evidence-based practice is determined by their level of placement in their program. Students' progression from

assessment decision-making to intervention decision-making, combined with appraisal skills, poses risks to both themselves and their patients. As a result, the clinical instructor must observe and support the student throughout the clinical day and semester, as well as provide comments on the student's actions. In addition to clinical rounds, pre- and post-clinical conferences offer several opportunities for clarification and education (Mirzanezam et al., 2024).

An excellent clinical instructor is knowledgeable of the student's history and learning needs. Instructional tactics must also be adapted to each student's cognitive style. This necessitates the clinical instructor's flexibility and ability to tailor his or her teaching style to the specific needs of each student in the clinical situation.

Orientation includes identifying what the staff's relationship will be. Clinical instructors must express specific expectations for each clinical encounter to the health care system's clinical liaison. Unless the educational institution provides a systematic orientation for this process, it will also be the responsibility of the clinical instructor. If this method is not followed, each student's clinical experience will be unique due to the changing quality of training provided by the instructor/preceptor in each clinical environment. To arrange a group of students in a clinical context, the clinical teacher must negotiate and convey each student's responsibilities (Bradshaw et al., 2021).

He or she also gives the student feedback and provides follow-up help. The clinical instructor assesses the student's abilities and reinforces learning and performance of skills. The nurse educator must recognize and intervene to ensure the patient's safety and well-being, as well as provide timely feedback to foster independence and confidence. Timely

feedback can help students avoid forming inaccurate assumptions about clinical competency and enable for better future performance.

Increasing students' self-awareness is a professional priority. It is critical to discuss observations made by staff and instructors that encourage a positive professional demeanor as well as those that undermine a student's professional demeanor. The clinical instructor must refocus the student in a professional manner to guarantee their safety (Bradshaw et al., 2021).

An extra role of the instructor is to keep correct anecdotal notes during clinical day for use in formative and summative evaluation. Anecdotal notes are an important tool for the clinical instructor since they may be utilized to assess the student's progress and are an essential part of the formative and summative evaluation documentation process (Bradshaw et al., 2021).

These responsibilities are critical in preparing nursing students to be competent and compassionate healthcare workers.

2.2.4 Role of Administrators in the Clinical Learning Environment

The roles of hospital and university administrators in the clinical learning setting are critical to improving patient care and educational outcomes. To ensure the quality of clinical learning placements, more emphasis should be placed on the design, organization, and facilitation of ward-related activities. When planning clinical placement, it is critical to offer nursing students with detailed written feedback and to give clinical facilitators enough time to undertake student supervision. (Boe et al. 2021).

The training institution and teaching hospitals’ distinct ideas, basic values, and curriculum shape their approach to nursing education. Nursing courses are frequently developed and

implemented with active involvement by higher education institutions. Clinical activities are overseen by hospital administrators, who ensure regulatory compliance, manage resources, and develop a culture of patient safety and satisfaction. Their strategic planning and operational performance are critical to delivering high-quality care.

On the other hand, university administrators play a critical role in supporting clinical education by facilitating experiences, providing mentorship, and ensuring that clinical practice is consistent with educational objectives. They also address the needs of both students and healthcare providers to foster a positive learning environment (Mathisen et al., 2023).

Hospitals use by nursing students to achieve clinical learning objectives should plan on having qualified preceptors. The preceptor should be familiar with their job, course objectives, clinical teaching methodologies, conflict resolution strategies, and student assessment and evaluation protocols (Boe et al., 2021).

Nursing officers in charge of hospitals play a crucial role in making sure that preceptor programs remain viable because they provide formal support to the nurse preceptors. They also organize the time and space required by the nurse preceptor and nursing student to create a professional relationship. When preceptorship continues smoothly, the hospital can grow because potential competent staff can be identified from the pool of nursing students who rotated in their wards during their training. The preceptors will be able to manage the workload if they receive support from nurse preceptors and nursing officers in charge of the wards at the time needed (Bradshaw et al., 2021).

Administrators should source funds to construct and equip modern skills laboratories for nurse training. A strategic plan should be formulated and align with curriculum goals hence

putting skill learning resources to be a priority leading to operational efficiency. Funding must be continuous for sustainability of the skills laboratory which is an integral requirement for students' education. Since most of the skills laboratories are established with early cash, maintaining operations requires financial discipline (Bradshaw et al., 2021).

The goal of standards is to promote safe and effective nursing practice among nursing program graduates by establishing standards that encourage student preparation both in theory and clinical training. Repetitive intentional practice with timely feedback from instructors has been found to improve learning results, but it takes careful planning to schedule and implement. These criteria should be considered by program administrators and teachers when considering whether to combine the clinical skills laboratory sessions with other learning experiences across the curriculum (Bradshaw et al., 2021).

Mothiba, Bopape, and Mbombi (2020) argue that universities should create and conduct clinical learning activities that would allow student nurses to obtain the necessary professional skills and clinical competence. Nursing students will be confident in their ability to give and accomplish great healthcare for patients (Al-Harahsheh et al., 2020). Implementing clinical learning objectives and activities will help increase the quality of clinical education for student nurses, preparing them for 21st century practice (Modarres et al, 2021).

Effective coordination between hospital and university administrators is required to maximize the clinical learning environment, ensuring that clinical training is integrated with educational goals and that students receive the assistance they need to enhance their clinical abilities. A clinical learning environment in general practice can be an innovative

technique for offering undergraduate nursing students with quality teaching and learning opportunities. To improve the quality of these placements, universities must support nurse preceptors in the wards mentoring students (Boe et al., 2021).

Issues regarding clinical training and performance of BSc nursing graduates in nursing practice are key issues to the quality of healthcare services in Kenya and abroad. Graduate performance is one of the factors to consider when evaluating the quality of clinical training provided by BScN programs (NCK, 2022). The basis of outstanding clinical encounters begins with selecting the appropriate clinical settings. Nursing administrators at the hospital must provide adequate space and resources for students during scheduled clinical times.

The administrators find health facilities that meet NCK regulations and get permission from the NCK to use them for clinical learning experiences for undergraduate nursing students. This promotes teamwork among healthcare staff and helps to minimize disputes. As a result, collaboration between universities and hospitals is critical for improving clinical nursing training (NCK, 2022).

Adequate supervision remains essential for both patient safety and student learning. All clinical practice experiences must be supervised and evaluated by nurse preceptors and educators according to accreditation standards. To enhance experiential learning for undergraduate nursing students, universities and teaching hospitals must be in liaison to be able to work with same purpose, potential, and restrictions. Within this mutually agreed-upon arrangement, the hospital's major obligation is to provide cost-effective treatment while simultaneously providing a meaningful learning experience for students who assist

with patient care. The university's major job is to oversee students and explain learning objectives and expected outcomes for clinical experiences (Boe et al., 2021).

Universities and teaching hospitals are primarily responsible for developing and implementing general education requirements. This reflects their overall dedication to developing critical thinking, social responsibility, and adaptability in their graduates. Properly planned general education standards enable graduates to combine specialized competence with universal cognitive, ethical, and cultural competencies, ensuring them are prepared for both professional and public life (Jaafarian-Amiri et al., 2020).

Specifying clinical education goals and outcome informs both the universities and the hospitals. Nursing education and service demonstration concern for the future nursing profession and the preparation of future practitioners by working together to achieve their mutual and receptive goals. This fosters the expectation that all professional nurses have a responsibility to nurture the nurses of the twenty-first century (Mathisen et al, 2023).

A healthy partnership between university staff and hospital staff, especially nurses in charge of wards is vital to ensure students succeed in their clinical learning experience. If challenges occur in the preceptor-student relationship, the role of university staff and nurses in charge of the wards would differ as well (Bradshaw et al., 2021).

According to Mirzanezam et al. (2024), administrators can help students transition academically by creating a supportive learning environment. Research suggests that the quality of the clinical learning environment influences clinical learning outcomes (Mikkonen et al., 2020).

The competence and passion of nurse preceptors and nurse educators have a direct impact on the quality of clinical teaching for nursing students. A clinical learning environment

bridges the gap between theoretical knowledge and practical application, necessitating the presence of staff who can model professional behavior, educate effectively, and mentor students. Hiring practices have a direct impact on student outcomes, patient safety, and the overall learning environment in healthcare settings (Hickey et al., 2019).

Hospitals used by nursing students to achieve clinical learning objectives should plan on having qualified preceptors. The preceptor should be familiar with their job, course objectives, clinical teaching methodologies, conflict resolution strategies, and student assessment and evaluation protocols. A healthy partnership between university staff and hospital staff, especially nurse in charge of wards is vital to students succeed in their clinical learning experience. If challenges occur in the preceptor-student relationship, the role of university staff and nurses in charge of the wards would differ as well (Bradshaw et al., 2021).

Nursing officers in charge of hospitals paly a crucial role in making sure that preceptor programs remain viable because they provide formal support to the nurse preceptors. They also organize the time and space required by the nurse preceptors and nursing students to create a professional relationship. When preceptorship continues smoothly, the hospital can grow because potential competent staff can be identified from the pool of nursing students who rotated in their wards during their training. The nurse educators will be able to manage the workload if they receive support from nurse preceptors and nursing officers in charge of the wards at the time needed (Bradshaw et al., 2021).

These administrators collaborate to establish an atmosphere that promotes both patient care and professional development, eventually benefiting the healthcare workers and the patients they serve.

2.3 Opportunities in the clinical learning environment for undergraduate nursing students

The clinical learning environment is widely acknowledged as an important aspect of nursing education, acting as a link between theoretical instruction and professional practice. This environment provides nursing students with a variety of possibilities to build clinical competence, professional identity, and critical thinking abilities. Understanding these opportunities is critical for improving nursing courses and ensuring graduates are practice-ready (Flabert et al, 2021).

A suitable and helpful learning environment for nursing students is dependent on the availability of placement support systems such as supervision, mentorship, and preceptorship, as well as the relationships between faculty, nursing students, and clinical personnel. These placement support systems are facilitated by competent nurses on the wards where nursing students are sent to get practical experience. In this technique, a faculty member can better supervise a group of students by working together with precentors (Bradshaw et al., 2021).

This shows that learning in clinical practice for student nurses to become competent is contingent on the availability of opportunities, which pushes students to explore deeper and reflect on their experiences, resulting in improved clinical judgment. Exposure to real-world patient care is one of the most important learning opportunities in the clinical setting. Clinical placements enable students to apply theoretical knowledge in real-world settings, improving their abilities to analyze, plan, implement, and evaluate nursing interventions. This hands-on exposure promotes clinical thinking and decision-making skills, which are difficult to fully develop in classroom settings alone (Flaubert et al, 2021).

Nursing is a practice-based profession that necessitates extensive clinical training and positive practice experience to prepare nursing students for their professional duties. According to Musafiri and Daniels (2020), clinical learning opportunities are ways for student nurses to gain meaningful experience through real-world activities. Salifu et al. (2020) emphasized the importance of clinical placement for student nurses since it provides enough exposure and clinical learning opportunities in real-life practice environments, as well as motivation to attain clinical learning outcomes.

Motsaanaka et al. (2020) further state that clinical exposure to learning opportunities will help student nurses build clinical abilities in higher-order thinking skills. They will also assist them with clinical preparation as they make the move into the nursing profession. It is also a learning time in which student nurses exhibit applied proficiency in integrating foundational, practical, and reflective competencies in a real-life healthcare context, as required by Kenyan law, Nurses Act Chapter 257.

The clinical learning environment provides a safe yet authentic context for students to practise and perfect technical skills such as medicine administration, wound care, and the use of medical equipment. Repeated exposure to these procedures under supervision increases competence and confidence, in line with the experiential learning model outlined by LaFave (2020).

According to Brickman et al. (2020), a clinical learning environment is a combination of physical, psychological, emotional, and organizational variables that influence students' learning and how they cope with their surroundings. This setting has a significant impact on students' positive learning and mental well-being. Students should be provided

opportunity to practice various tasks in order to acquire confidence, perfect themselves, and learn from their failures.

Clinical learning outcomes connected with NCK qualification levels ensured clear communication of course expectations to student nurses, resulting in seamless success and development. Providing clinical learning objectives helps to motivate students' clinical learning by providing practice opportunities for a clear, targeted, and successful path to reaching their goals (Motsaanaka et al., 2022).

Furthermore, it supported student nurses in developing the information, clinical skills, and traits required to become safe, competent, and self-sufficient healthcare providers. Providing clinical learning outcomes demonstrates clear and shared expectations between nursing students and clinical facilitators regarding professional abilities, skills, and values that must be attained at the conclusion of the student's clinical learning experiences and practice. Motsaanaka et al. (2022).

According to a study conducted by Amoo et al. (2022), nursing students reported that being taught new things, being monitored, and having autonomy were the most important variables promoting clinical learning. Participants also felt that clinical experience provided possibilities for learning and developing clinical competence. A suitable clinical learning environment is crucial to improving students' learning experiences. For example, in a context where simulation learning is limited or unavailable, learning takes place in the actual medical setting.

The attitude of clinical instructors, constructive feedback, and supportive clinical settings all contribute to clinical learning. The quality of clinical learning settings and nursing students' perceptions of them during clinical learning placements have an impact on their

education and professional socializing experiences, processes, and outcomes. Some undergraduate nursing students find their clinical education experiences gratifying and satisfying. With so many learning opportunities available through electronic resources and patient simulation, teachers can easily create learning experiences that cater to most learning styles and preferences (Fraher et al., 2020).

According to a study conducted by Amoo et al (2022), being taught new things, being observed while in the clinical learning setting, and having autonomy to practice all improved clinical learning. Learning occurs when nursing students are given the opportunity to practice real nursing by completing clinical assignments. Students are given opportunity to learn and become active in the provision of patient care rather than simply observing others do a series of activities hence improving students' learning more than simply apply theory to practice. They eventually develop clinical skills and confidence. Technology-based learning activities encourage students to study independently, conduct research, and use visual cues such as video to improve comprehension (Bradshaw et al., 2021).

Clinical rotations frequently include engagement with interdisciplinary healthcare items, allowing students to learn about various professional positions and collaborative care methods. Such exposure fosters teamwork, communication skills, and respect for varied professional contributions, all of which are stressed in the WHO's interprofessional education framework (WHO, 2020).

Collaborative learning is a novel, instructional small group learning strategy in which students are required or encouraged to collaborate in order to improve learning and achieve common learning objectives. Encouraging such activities will allow for the sharing of

information from various professional backgrounds, as well as the clarification of professional roles and the opportunity to collaborate in the development of patient care plans to address their complicated health requirements. (Motsanaka et al., 2022).

Furthermore, students' engagement and active participation in collaborative activities fosters an authentic learning experience in which they relate, synthesize, discuss, communicate, and justify their ideas and opinions in an IPL setting. Interprofessional collaboration initiatives can improve students' learning chances. They will need the requisite knowledge and transferable abilities to become global health professionals who can think critically, make decisions, and solve problems. (Motsanaka et al., 2022).

On the other hand, the presence of nursing students in the clinical learning setting was beneficial to both clinical faculty and medical personnel, particularly ward nurses. Clinical nurses also acknowledged that students supported them when they visited their department. As clinical nurses' jobs become increasingly challenging, nursing students proved to be a useful aid in reducing workload. These students assisted them in doing basic nursing operations such as conducting blood pressure and temperature checks for patients, as well as more sophisticated activities (Bsharat et al., 2025). In the fast-paced live clinical environment, time is of the importance, and students are frequently required to perform above the level of beginner learners. However, clinical reasoning, problem solving, getting suitable supplies, managing equipment, researching resources, conducting procedures safely, and communicating verbally and in writing are all skills that the beginner learner must practice extensively (Bradshaw et al., 2021).

Students have observed various benefits from the nurse-faculty collaboration. These include a welcoming setting, regular monitoring and commitment to teaching, and

increased possibilities for communication, skill learning, teamwork, and time management. Similarly, when questioned, faculty prefer a partnership unit to a typical clinical unit. Staff nurses who engaged in the collaboration showed improvements in leadership, autonomy, and motivation (Zhang et al., 2022).

Several studies have found that students in units with an academic-practice collaboration experienced much greater increases in clinical self-efficacy and confidence than students in traditional units. Student-centered clinical training also encourages the development of quality and safety skills in students. Clinical teaching innovations show potential in facilitating dialogue between academics and practice about clinical requirements, expectations, and new graduate preparation, promoting quality improvement and excellence in patient care (Woo et al., 2017).

The clinical learning setting acts as a socializing agent, introducing students to the norms, values, and culture of nursing. Students absorb professional practices, ethical norms, and patient-centered care principles by following the lead of experienced nurses. Socialization into the profession is an important part of the students' education. Nursing students work with nursing professionals as an extension of the learning model, and they are overseen by a faculty member. Learning in the clinical learning setting necessitates a favorable learning environment as well as sufficient support from skills practitioners and educators. Clinical learning environments in general practice can be an innovative technique for offering undergraduate nursing students with nontraditional but high-quality teaching and learning experiences (Mikkonen et al., 2020).

A clinical learning environment with minimal experience but plenty of support may provide possibilities for nursing students to investigate new health needs and how to

address them. Thus, regardless of where clinical learning takes place, learning climate has an impact on nursing students' achievement and happiness with their learning experiences. Students also see faculty as excellent role models if they are current in their specialty (Ziba et al., 2021).

Students identify and respond to clinical instructors who are passionate and enthusiastic about their work. Passion is contagious, and it promotes the creation of a healthy learning environment. Clinical instructors that have both content and clinical competence in the areas they teach can maximize linkages within and between curriculum areas, as well as understand and adjust to their students' needs. An international study discovered that the instructor's caring conduct had a favorable influence on nursing students' caring behaviors. This study of 586 student nurses from four countries offered a cross-cultural view on the value of faculty role modeling caring competence as an effective teaching technique (Kurt et al., 2022).

In addition to focusing on the nursing function, chances for interprofessional socialization should be sought in the clinical situation. Interprofessional education provides the foundation for training future healthcare providers (Bradshaw et al., 2021).

Communication and feedback form the foundation of the preceptor-preceptee relationship. Communication involves mutual trust, respect, and time. It is vital that the learner and preceptor have an initial meeting to discuss their experiences, expectations, and relationship goals, as well as their personal, job, learning, teaching, and communication styles (Saka et al., 2026).

Open, honest, caring, and timely feedback establishes the foundation for a successful partnership. A preceptor's responsibilities include serving as a teacher, counselor, clinician,

and guide during a challenging transition. During this time, it is critical to maintain a safe, supporting, and informed environment (Zhang et al., 2026). While the primary interaction is that of the preceptor and preceptee, supportive faculty and unit staff also play crucial roles. Faculty, management, and clinical liaisons schedule meetings with preceptors ahead of time to describe, update, and integrate learning outcomes with course or orientation program objectives. Nursing and organizational leaders should carefully evaluate how to support and appreciate preceptors in their positions (Bradshaw et al., 2021).

Critical thinking and problem-solving abilities are developed as students are challenged to think critically, prioritize care, and adjust to changing conditions in dynamic and unexpected clinical settings. These opportunities are critical for training nurses to work effectively in complex healthcare settings (Hammad et al., 2024). Taking nursing students' cognitive levels into account can be used to support and apply constructive learning to determine how best to assist and guide student nurses in developing intellectually and building their skills, the better they will be at learning and constructing new knowledge to apply in clinical practice. (Motsanaka et al., 2022).

Upahi and Ramnarain (2020) emphasized that changing professional standards and health difficulties necessitate nurse educators creating and providing nursing students with learning chances to improve higher order cognitive skills through problem-solving activities. Creative tactics and learning opportunities that are targeted to students' requirements gradually enhance their knowledge to do tasks in practice, facilitating their progression from reliance to independence (Den Hertog & Boshuizen, 2022).

Rotations through several departments, such as pediatrics, maternity, surgery, and community health, widen students' clinical perspectives and help them discover areas of

interest for future specialization (Hammad et al., 2024). This diversity also guarantees that students graduate with a more competent and comprehensive skill set.

Nursing students require clinical learning experiences in various healthcare settings that provide opportunity for successful learning. Such a learning environment must be exciting, self-motivating, and helpful, with a varied spectrum of healthcare experts, real-life patients, and a complex psychosocial setting rich in educational resources Motsaanaka et al. (2022). Nursing students can use their clinical practicum experience to apply concepts taught in class, practice skills learned in the skills lab, and interact with patients, families, and other nurses. Nursing students' proper clinical placement promoted interprofessional collaborative learning by exposing them to a variety of learning opportunities in the clinical practice setting.

Direct patient involvement enables students to acquire empathy, emotional intelligence, and resilience (Mirzanezam et al., 2024). These effective qualities are increasingly regarded as essential for providing comprehensive nursing care. Perceived teaching team membership should increase nurses' motivation to provide effective clinical instruction. What this says is that it would be good if a part of their teaching time was devoted to individual work with students. The teacher should use opportunities to pick or shape learning experiences regularly, not only to promote active learning but also to instill in pupils a sense of empowerment, which is essential in the clinical context (Al-Worafi et al., 2024).

Disagreement or disharmony should be addressed objectively. Viewpoints can then be strengthened or changed. Questioning and conversation should be based on the students'

diverse backgrounds. A teacher who can build trust and confidence with students can encourage the expression of diverse opinions in the group (Bradshaw et al.,2021).

The clinical learning environment allows students to connect classroom learning with clinical reality, hence improving information retention and application (Alammar et al., 2020). This integration is a key component of competency-based nursing education. Integrating theory into practice is important because it demonstrates nursing students' ability to apply theoretical evidence to practice and generate reasons and justifications for clinical judgments that inform skills practice (Berndtsson, Dahlborg, & Pennbrant, 2020). Planning clinical placement is a systematic arrangement in which nursing students are assigned to a conducive and dynamic clinical setting practice environment that promotes and develops good interactions with learning experiences. Motsaanaka et al. (2022).

Once the teachers and students have been orientated to the clinical site, it is crucial to design the clinical experience such that assignments align with course objectives and theoretical concepts. For example, the instructor might assign patients who have fluid and electrolyte deficits during the time period in which the students are learning about this idea in their theory course. Additional practice calculating maintenance fluids and interpreting lab values will assist the student in connecting theory and practice (Bradshaw et al., 2021). Clear objectives, professional limits, and collegial relationships with healthcare personnel are all necessary components for clinical professors to provide a good clinical experience for students. Adapting the experience to the student necessitates student involvement in setting learning objectives and requirements. Respectful and caring interpersonal interactions between instructors and students lead to helpful and approachable communication (Bradshaw et al., 2021).

Although the preceptorship experience can take place in any health-care organization, it is critical that the clinical environment aligns with the program's and students' objectives. The appropriate length of experience is determined by the goals to be reached. The experience must be long enough to give a variety of clinical encounters that will help students meet the course or orientation objectives. The clinical atmosphere must make the newbie feel comfortable enough to ask questions and take chances (NCK, 2022).

Students' exposure and preparedness to enter the clinical learning environment have a substantial impact on the quality of clinical learning (Marriott et al 2024). To achieve clinical competency, both educational and psychological demands must be met in a hierarchical manner. This offers children with organizational familiarity, continuity, and a pleasant sense of belonging.

2.4 Challenges Encountered by Stakeholders in the Clinical Learning Environment for Undergraduate Nursing Students

The clinical learning environment (CLE) is an essential part of nursing education, acting as a link between theoretical instruction and professional practice. It includes the physical environment, corporate culture, interpersonal relationships, and learning opportunities provided to nursing students during clinical placements. A supportive CLE has been demonstrated to improve skill learning, critical thinking, and professional identity development. However, several studies have identified ongoing obstacles that impede optimal learning outcomes for students and complicate the roles of various stakeholders, such as clinical instructors, academic faculty, and healthcare administrators (Tadesse et al., 2024). Understanding these challenges is essential for designing interventions that improve both educational quality and patient care.

Clinical teaching intentionally is seen as an important part of nursing education. According to literature, a variety of factors influence clinical learning, including the quality of supervision and feedback, as well as the characteristics of learners and teachers. There is a growing disparity between how good health care is defined and how it is actually delivered. In this example, education programs for health professionals have been chastised for failing to produce graduates with sufficient and relevant capabilities.

Despite the critical examination of the importance and many applications of clinical learning objectives in the literature, there is a lack of clarity in their definition and understanding as a concept (Stoffels et al., 2021). A lack of definition and misunderstanding of the concept made it difficult for nursing educators, clinical education and training unit personnel, and operational managers to provide student nurses with adequate clinical teaching, learning, and positive practical experiences (Taylor et al., 2021).

The vague and abstract notion of clinical learning objectives was defined and explained in order to capture its contextual complexities and contribute to improving worldwide standards of professional clinical education in the practice-based profession (Baker, Cary, & Bento, 2021). Given the necessity of clinical practice in nursing education, evaluating and identifying areas that need to be addressed and improved is extremely valuable.

2.4.1 Challenges Encountered by Nursing Students in Clinical learning environment

Clinical learning experiences are important to nursing education, and they are the most effective way to build professional nursing abilities. A clinical learning environment is a complex social construct that has a significant impact on nursing students' learning outcomes. However, it can be problematic due to uncertainty (Bradshaw et al., 2021).

Poor staff attitude, a lack of equipment, a negative student attitude, insufficient learning opportunities, and a lack of clinical supervision were noted as challenges in the clinical learning setting. Nursing students are frequently unable to apply theory in clinical settings (Amoo et al. 2022).

Undergraduate nursing students may be perplexed about their identities because there is no clear definition of tasks for nurses and students, leaving them unsure of their roles. Nonprofessional duties undertaken by nurses, for example, resulted in a bad attitude about nursing and uncertainty about its roles. Furthermore, the gap between expectations and reality, as well as the divergence between what students learnt in class and what they seen in clinical settings, exacerbated the uncertainty (Essfadi, 2024).

Student-related difficulties such as a lack of knowledge and skills, a bad attitude, unprofessional behavior, and poor communication skills with patients and clinical instructors can all have a detrimental impact on clinical teaching and learning. Students' inability to ask questions, arrogance, lack of motivation to learn or work, and dishonesty have all been cited (Bsharat et al., 2026).

Some of the prerequisite information and abilities required for an activity may be lacking in nursing students; these are the skills and knowledge that teachers reasonably expected the students to have. Regardless of the activity's clarity and directions, some students often struggle to comprehend it or relate some aspects of it to their existing knowledge and experience, while others struggle to listen and follow instructions. The way students approach clinical learning may influence how effectively they learn during the clinical placement (Cant et al., 2021).

These issues may lead to decreased confidence, anxiety, and poor skill development, impacting professional preparation. When faced with obstacles and problems in educational settings and clinics, pupils experienced psychological distress, dread, and tension. Their anxiety and stress in clinical learning environments could be attributed to concerns about unknowns, equipment, and the risk of injuring patients. Negative feedback from teachers, patient companions, or nurses was another source of stress for students in clinical learning contexts. The unsupportive, uncomfortable environment occasionally prompted pupils to cry or become anxious (Jafarian-Amiri et al., 2020).

According to research, heterogeneity in the quality and availability of clinical supervision is a significant impediment to effective learning. The need for scheduling and faculty availability may make clinical experience attendance more challenging, but there are several ways to collaborate with a student to design a program that allows for some flexibility in particular instances. Once again, it is vital to recall the learning purpose of the experience or class and to consider inventive and adaptive techniques to working with students to prepare for what they believe they can achieve (Ayalew, 2025).

According to research, one of the most significant barriers to practical learning is nursing teachers' inability. Continuous professional development involvement among nurses in Africa is visibly low, and inadequate participation contributes to suboptimal treatment, according to Nwogbe and Halison's (2020) research.

There are insufficient or no nurse educators, clinical instructors, or mentors available, and the program has an excessive number of students. The difficulties that nursing students confront may be due to a significant number of students enrolling at the same time. There may be too many students to ensure that everybody has an identical or comparable

experience. Because of the student-teacher ratio, some activities may be overly time-consuming and labor-intensive (Ayalew, 2026).

One problematic student issue concerns the student's unprofessional behavior. This could be something that the clinical instructor observes as it occurs or something that someone else recounts. This could be as minor as non-therapeutic communication or as serious as a breach of the Health Insurance Portability and Accountability Act. Clinical practice failure happens when a student lacks clinical competence and cannot complete the course objectives. Clinical practice failures affect both clinical teachers and their students (Bradshaw et al., 2021).

However, there is overpopulation in the public academic hospital under investigation due to the placement of students from various nursing education institutions as well as students from other health disciplines (Motsaanaka et al., 2020). Overcrowding prevents nursing students from integrating theory into practice, developing critical skills and clinical abilities, and growing professionally (Mbakaya et al., 2020).

The discrepancies in expectations between nurse educators and preceptors contributed to ambiguity and conflicting roles. Nurse preceptors who had a negative attitude regarding their jobs instilled it in their students, casting doubt on their ability to accept their roles as nurses. This has influenced nursing students' perspectives of nursing and their ability to accept their professional identities (Gaynor & Barenes, 2022).

As much as this theory is desirable, the number of students in nursing institutions has increased dramatically, resulting in insufficient educational opportunities. In my opinion, an increase in the number of students may result in students not being skilled enough to

perform specific tasks following completion of their training, rendering them unable to provide great care (Ayalew, 2026).

An upleasant experience with a mentor or preceptor who is overburdened, unfriendly, or disengaged may inhibit learning. Proper clinical preparation is critical. However, not all of these nurses like educating nursing students. Students' attitudes and expectations can influence clinical learning. Students may miss out on other learning opportunities when teachers act just as experts or enforcers of authority (Leon et al., 2023).

Several studies have found that students may have limited access to different patient cases or specialized units, restricting their capacity to build a wide variety of competences. The complexity and diversity of patient requirements can also have an impact on nursing students' learning chances (Walker and Rossi, 2021). This is especially true in high-demand areas like intensive care or pediatrics. There are few opportunities for students to practice in teaching hospitals.

According to Benny et al. (2023), several teachers did not provide appropriate knowledge of prescription drugs, processes, and necessary care. The lack of coordination between theoretical and practical course durations has resulted in students facing difficulties in clinical learning scenarios. Students may end up in the wards before learning about illnesses and the care required for patients with specific conditions, limiting their ability to learn.

The mismatch between classroom education and real-world clinical practice is a common issue in the literature. Amoo et al. (2022) found that nearly all participants agreed on the existence of a theory-practice split. Some participants expressed difficulty connecting theory to practice because their clinical learning experiences differed from what they did

in class. They concluded that the theory-practice gap was mostly caused by a lack of time, equipment, and learning opportunities. Some participants did not have the therapeutic experience they expected because they felt it was insufficient.

Students must apply theory to practice, develop the necessary technical and interpersonal skills, create clinical judgments, integrate into the profession, and begin to grasp its ethics and values in a clinical learning setting (Essfadi, 2024). Even while clinical placement is an important learning opportunity, nursing students may endure significant stress and worry as a result of it.

Students frequently meet processes or practices in practice that differ from what they were taught, causing uncertainty and low confidence. Students transitioning into professional employment are exposed to the realities and paradoxes of the real world, rather than the previously recognized and organized world of academia. The student may question the value of what has been learned, as well as the ethics of what is observed in the workplace (Bradshaw et al., 2021). Learning to combine academic and work contexts in an acceptable manner for the learner can be difficult and emotionally distressing when established support and social systems are abandoned.

As students progress through their education, their long-held, familiar ways of knowing, thinking, and reflecting are tested. This is especially true in the health professions, where students study value systems other than their own and encounter ethical dilemmas in practice or situations with multiple valid answers or no obvious choice (Bradshaw et al., 2021).

Most clinical training facilities in Sub-Saharan Africa have logistical and equipment constraints, which affect students' learning experiences. Several factors have been

discovered to influence student learning in the clinical learning environment. Individual traits, hospital environment, socioeconomic status, and factors of nurse education are all taken into account (Quayson et al., 2024). Furthermore, poor CLOs demotivate and irritate nursing students, leading to increased absenteeism and a longer period of study (Berh & Gebretensaye, 2021).

Exposure to real-world practice settings, experiences, and clinical activities enhances clinical learning, bridges the theory-practice gap, and prepares student nurses to become clinically competent, independent professional nurse practitioners (Taylor et al., 2021). Another issue raised was educational inequality and prejudice against nursing and medical students in the clinical learning environment. Negative criticism has also been shown to affect students' clinical performance (Adam, 2021).

Due to institutional problems, a lack of relationship between students and clinical educators, and unpleasant attitudes and actions on the part of individual nurse educators, the clinical setting has often been characterized by students as non-supportive. Nursing students complained about preceptors' inadequate engagement and nutrition. They reported they had few opportunity to reflect with their preceptors, and that preceptors were unavailable to communicate with students, especially during a time when theory and practice were not linked (Bradshaw et al., 2021).

The unsupportive climate in clinics, which was especially uncomfortable for students, was caused by certain nurses' negative views about their presence in the department, a lack of assistance, and mistrust between nurses and patients. Students see unfavorable connections in clinical settings, which cause complications. They continued to complain about the

staff's unwillingness to cooperate and the nurses' disinterest or disregard of them (Livingstone, 2024).

Because of the impact of specific patient characteristics, an occurrence that a preceptee may manage in one case may necessitate direct intervention of the preceptor in another. This apparent contradiction in preceptor behavior may contribute to the preceptee's lack of confidence and emphasizes the importance of open, honest communication (Bradshaw et al., 2021).

Nursing students, especially at the start of their practical training in hospitals, frequently face tremendous stress. Thus, understanding their assessment of the effectiveness of the clinical teaching setting is critical for favorably impacting their information acquisition, safe training practices, and professional development. A helpful and conducive atmosphere supports effective learning, but a negative or unsupportive environment can impede students' growth (Berndtsson et al., 2020).

Students describe the challenges of this transition as being able to set priorities, organize patient needs, learn time management skills, and communicate with doctors while sometimes lacking confidence in their performance and struggling with dependence and independence in the preceptor-preceptee relationship (Bradshaw et al., 2021).

According to a study by Tadesse et al. (2024), are kept in cabinets that are only open to nurses, and students need help getting to them. However, nursing students may lack the necessary skills and experience to use the resources, equipment, or electronic technology for a learning activity. Although many forms of computer equipment are simple and easy to master, some students lack expertise, skill, and comfort when using computers for any purpose.

Algunmeeyn et al. (2025) recognized transportation and accommodation issues as well. The participants claimed that universities do not provide transportation to clinical learning environments, nor do they care to provide housing for nursing students who must remain away from campus. This lowers training opportunities, which has a detrimental impact.

2.4.2 Challenges Encountered by Nurse Preceptors in Clinical Learning Environment

The clinical learning environment shapes nursing students' learning experiences and outcomes. Any placement's success is dependent on the interaction between nursing students and their preceptors. Preceptors may face difficulty supervising students in already complicated, resource-constrained contexts, which can have an impact on their motivation and engagement in the supervisory process. Juggling high patient acuity with intense clinical activities gives limited time for education, supervision, and comprehensive constructive feedback (Benny et al., 2023).

In high-acuity settings, nurses may have limited time available for student instruction, resulting in less exposure to the complete range of practice skills and procedures. Registered nurses frequently have rigorous workloads, large patient loads, and other non-clinical tasks, which can limit their ability to provide effective supervision and education to nursing students. This has the potential to impact the quality of nursing students' learning experiences (Cusack et al., 2020).

Preceptorship can be perceived as stressful and challenging due to an increased workload, contributing to job dissatisfaction and potential burnout. In a study by Anderson et al., (2020), preceptors have suggested that their workload should be adjusted when they are

assigned nursing students under their care. This would allow for sufficient time to support and provide learning opportunities to nursing students and maintain an adequate level of care to their patients.

Depending on the staff mix in each clinical area, there may not be enough enthusiastic, dedicated, and educationally prepared staff to fill the preceptorship job. This is true if the unit or department accepts groups of students and new employees at the same time, resulting in competition for patient assignments. Staff may consider the position of preceptors, which includes related teaching and evaluation obligations, as additional labor (Bradshaw et al., 2021).

While many preceptors are clinically competent, they may lack formal training in instructional approaches, lowering the quality of instruction. Many nurses are required to take on preceptorship duties without appropriate pedagogical training or adequate compensation, which can result in rapid burnout and substantial turnover (Livingstone, 2024). Lack of preparation and support has an influence not only on preceptors' well-being, but also on the quality of teaching delivered to nursing students.

Registered nurses assigned to supervise students are frequently expected to have the necessary clinical supervision experience to properly assist them. However, in many countries, defined criteria for selecting preceptors may be absent or poorly developed, with clinically-based nurses receiving little organized education or support to improve their teaching or supervising skills (Livingstone, 2024).

Furthermore, the interchangeability of preceptors each day can disrupt students' clinical placement experiences, diminishing continuity and possibilities for scaffolding knowledge and skill development (Pienaar et al., 2022). The ramifications of bad relationships between

students and preceptors, as well as a lack of continuity, are significant, including a potential deterioration in quality and safety treatment, which can have an impact on staff retention.

Many countries state in policy or strategic papers that clinical education and development are critical to healthcare delivery. For example, the Nursing and Midwifery Board of Australia's (2021) Standards of Practice require registered nurses to commit to teaching, supervising, and assessing students in order to strengthen the nursing workforce across all practice settings. Despite this criterion, a lack of qualified preceptors exists (Henry-Okafor et al., 2023).

Registered nurses in these positions may have various levels of experience, enthusiasm, and confidence in mentoring nursing students. Many lack formal education or training to promote or develop student learning, and support from health-care management may be inadequate or absent (Leon et al., 2023). Given global nursing workforce demands, high-quality nurse preparation is critical. As a result, preceptor support becomes critical.

Academic institutions and healthcare settings frequently cause discomfort. Preceptors may not receive enough communication from nursing instructors regarding specific students' learning objectives or evaluation. Nursing professionals may feel unsupported when teaching and managing undergraduate nursing students due to a lack of acknowledgment, according to Cusack et al. (2020).

The success of the preceptor role is also dependent on the support they receive from their companies and the institution. Adequate support systems and resources can boost preceptors' confidence, competence, and motivation in their supervising roles (Cusack et al., 2020). Many preceptors feel unprepared to adequately advise nursing students during clinical placement (Devlin and Duggan, 2020).

When nurses are unaware of their precise responsibilities for precepting nursing students and face confusing expectations, a lack of training, and a lack of time, it might undermine their motivation and participation in developing connections with nursing students (Cant et al., 2021). Preceptors reported that some faculty members did not acknowledge them as preceptors, which made their work difficult and doubtful. Some of the participants anticipated the faculty members to collaborate with them when observing the students (Mhango et al., 2021).

Preceptors face the stress of spotting harmful practices, dealing with underprepared students, and managing students who exhibit performance anxiety or poor clinical judgment. This leads conflicts between a precentor and the nursing students. This is compounded by clash of values and views between various age groups. Differing worldviews, personal motivators, preferred work environments, conceptions of work-life balance, and individual strengths and disparities can all lead to conflict between a preceptor from one generation and a nursing student from another (Bradshaw et al., 2021).

Patients must be aware that learning is engaged in their care as part of informed consent, and the preceptor should respond that the learner has demonstrated the knowledge and skill to deliver safe care before doing so independently (Bradshaw et al., 2021).

Preceptors frequently encounter students who have high expectations, lack fundamental understanding, or struggle to integrate classroom concepts in fast-paced real-world situations. Students frequently arrive at the clinical learning environment perplexed by the mismatch between classroom theory and clinical practice (Essfadi et al., 2024).

Nursing students perceive a separation between the training institution and the clinical learning environment, which is a considerable obstacle to clinical learning. Many

students discover a discrepancy between the nursing care procedure and what is done in practice. They noted that what they see in practice frequently contradicts what they understand in theory (Essfadi et al., 2024).

Consistency in preceptorship has also been shown to encourage continuity in teaching approaches and feedback, thereby improving the learning experience (Cant et al., 2021). However, the preceptor must have a thorough awareness of the students' abilities and intended goals in order to adjust their teaching tactics, ensuring adequate learning opportunities. Clinical education necessitates the creation of a supportive environment for nursing students, who require assistance in becoming prepared for their future careers. In the clinical learning environment, students frequently face unplanned activities involving the patient and other healthcare workers. This causes stress, which impairs the learning process and consequences (Jafarian-Amiri et al., 2020).

2.4.3 Challenges Encountered by Nurse Educators in Clinical Learning Environment

Clinical education is a learning process that takes place in a clinical learning setting and is facilitated by clinical instructors and clinical staff at healthcare facilities. It is essential in health profession education because clinical experience supplements the academic knowledge that health professionals already have with more practical and hands-on abilities (Nalubega et al., 2026). It teaches collaboration and teamwork in order to apply academic knowledge in real-world settings and establish a professional identity.

According to Negm (2024), significant time constraints are a common difficulty faced by nurse educators. Nurse educators face a variety of responsibilities, including student training, classroom teaching, and the need for ongoing professional development. This is

aggravated by the large number of pupils to be instructed, who are distributed throughout several hospitals.

Managing too many nursing students at once reduces direct supervision and customized feedback, causing instructors to spread their attention across crowded hospital floors. A high student-to-instructor ratio might lead to restricted attention and feedback, making tailored instruction difficult to implement (Jafarian-Amiri et al., 2020). High enrollments in medical and nursing programs result in high student-to-instructor ratios in public referral and county hospitals. Faculty are required to oversee big groups, which reduces the quality of individual mentoring (Ayalew, 2025).

One of the most difficult issues for instructors is devising a variety of ways to promote effective learning in all students. Part of the challenge is ensuring that the faculty's styles and learning preferences match those of the learners. Faculty, in particular, should be wary of showing partiality to students who share similar characteristics with the instructor. Conversely, congruence between the teacher's and the student's personalities may improve a particularly meaningful relationship and lead to professional mentorship (Bradshaw et al., 2021).

Clinical arrangements at these community-based facilities have traditionally been dependent on contractual agreements; however, as integrated health systems expand to deliver a broader range of services, these encounters may become more direct alignment. Community-based learning emphasized the logistical challenges of placing students across multiple geographical sites that accommodate a small number of students into institutions, as well as the increasing number of institutions, where many learners are placed in a facility

to meet the same objectives at the same time. This causes congestion and ineffective teaching and learning (Panda et al., 2021).

Another difficulty for nurse education is the ongoing gap between textbook theory and real-world bedside realities. Educators are continually struggling to bridge the gap between excellent classroom textbook procedures and the resource-constrained reality of actual clinical wards. The first clinical placement for nursing students is a difficult phase including the transition of theoretical knowledge and the formation of an identity within the healthcare context; it is frequently a time of emotional fragility that the nurse educator strives to alleviate (Marriott et al., 2024). Rapid changes in healthcare practices may outrun curriculum updates, worsening the theory-practice gap.

This is due to considerable differences between student expectations and clinical learning environments. One of the issues in the clinical learning setting is the lack of an adequate educational framework. Nurse educators also struggle to balance outdated or inflexible classroom instruction with fast-paced clinical reality, unstandardized procedures, and diverse unit workflows. Fragmented teaching methods and disparities between modern curriculum requirements and actual hands-on medical operations frequently result in student skill loss and demotivation (Panda et al., 2021)

Educators need to reflect on their own teaching philosophy, especially considering recent shifts in conventional clinical education methods. The necessity for critical thinking in clinical practice, particularly in complicated patient situations, necessitates a combination of practical skills, subject-matter expertise, and the ability to translate knowledge into clinical actions and decisions. Due to the continuous transformation of practice contexts, competency remains a complex and moving target (Livingstone, 2024).

Clinical settings need a variety of teaching methodologies, which provides a challenge for nurse lecturers who are underprepared to adequately supervise clinical practice. In recent years, educators' counseling and training duties have expanded in prominence, with their primary task now being to steer rather than monitor nursing students (Cusack et al., 2020). A renewed focus on civil rights, gender equality, sexual identity, and ethical debates in the late 1960s and 1970s resulted in significant shifts in what was previously regarded acceptable public behavior. These changes impacted the current trend of growing diversity among patients and students, as well as new opportunities and problems that differed from those in the past. Educators must be adaptable, cognizant of trends and patterns, and sensitive to evolving challenges. (Bradshaw et al. 2021).

Inadequate medical equipment and resources have sometimes caused difficulties for nurse educators during clinical education. Nurse educators are frequently confronted with insufficient access to basic medical equipment, overcrowded clinical wards, and a lack of specialized teaching space. Insufficient resources can impede students' capacity to get the requisite information and abilities in their area, and limited access to clinical learning environments can limit experience to real-world clinical scenarios (Tadesse et al., 2024).

Students' lack of working resources, as well as poor teaching materials, pose a difficulty to undergraduate nursing students. The typically old and decaying hospital infrastructure exacerbates the situation. Despite the recent emergence of clinical skill centers with advanced technology that allows for simulation of most abilities, strong clinical learning placements remain critical in acquiring nursing skills, clinical reasoning, and developing as a professional nurse (Bradshaw et al., 2021).

Algunmeeyn et al. (2025) found that participants identified existing clinical settings that lacked basic resources such as seminar rooms and student workspaces. These limitations have a negative impact on the work of nurse educators in clinical teaching. Limited resources and qualified professionals have been shown to have an impact on both the quality of care and the advice given. Undergraduate education requires comprehensive clinical resources to equip practitioners for good practice.

According to Panda et al. (2021), many clinical placement sites lack suitable modern medical equipment, library resources, and regular internet connectivity, limiting effective demonstrations and skill application.

Academic institutions have gained access to hospital practice sites through direct alignment with hospitals affiliated with the educational institution or through contractual agreements with unaligned hospitals. Reflecting current developments in the health-care delivery system, undergraduate nursing education now includes extensive clinical practice in community-based settings.

Nurse educators carry enormous academic and clinical loads while sometimes receiving little institutional support or incentives, exacerbating the overall nursing faculty shortage. A lack of dedicated time for instructional preparation results in higher burnout and high turnover (Tadesse et al., 2024).

Clinical practice in community-based settings typically results in limited site capacity. Despite offering a greater range of services, venues can accommodate fewer students than traditional hospital facilities. Furthermore, the transition to broader-based, more diverse experiences may need geographical distribution of students among many providers and

places. The most effective method of educating students for clinical practice must be addressed (Bradshaw et al., 2021).

Nurse educators may encounter hostile or unsupportive conditions in the clinical learning environment. They commonly complain about difficult nurses, poor medical equipment, and overcrowding at hospital facilities. A clinical instructor's function primarily demands collaboration across healthcare settings, interprofessional teams, health science faculty teaching in the classroom, and students assigned to clinical learning experiences in health settings (Tadesse et al., 2024).

Strained relationships with clinical nurses, who may not have the time or motivation to mentor students, frequently result in a hostile or unwelcoming environment.

Lack of optimal clinical sites has an impact on clinical training quality and nursing performance. Nurses in the clinical learning environment, sometimes, feel inadequate when the nurse educators are around because of the shortcuts they apply when performing procedures. This leads to the uncooperative state of the situation.

Nurse educators frequently work as both educators and clinical nurses, resulting in burnout and confusion about whether their primary concentration is patient care or student instruction. According to Tadesse et al. (2024), the majority of instructors reported that there are currently no orientation sessions for nurses on the objectives of the attachment assignment. Another nurse educator described an experience in which they were not properly inducted and briefed on the expectations and goals of their learning before being allocated to attachment sites.

Balancing patient safety with students' learning goals requires nurse educators to make tough, split-second judgments about supervision. Mentorship qualities vary widely, with

nurse educators unable to provide organized supervision due to demanding clinical schedules and work-life balance concerns (Kipsoi et al., 2025).

Nurse educators also confront evaluation challenges in the clinical learning setting. Accurately assessing clinical competencies and critical thinking is subjective, and no standardized measures exist to objectively measure a student's progress. Nurse educators may inadvertently let a student's positive personality or strong theoretical knowledge to obscure poor practical performance, resulting in inflated grades (Tadesse et al., 2024). Lack of uniformity is likely owing to the unpredictable clinical learning environment, as no two student shifts have the same patient scenarios or completion time. As a result, nurse educators struggle to keep evaluation criteria similar across the cohort (Algunmeeyn et al., 2025).

The aspects of procedures and the significance of abilities evolve as knowledge and technology advance. Clinical skills laboratory instructors and faculty must continuously update their knowledge and demonstrate contemporary best practices while training students, yet this is insufficient. Aspiring healthcare providers need to learn how to continually refine their practices as new information becomes available (Bradshaw et al., 2021).

Orientation includes informing employees about their responsibilities. Healthcare agencies and clinical teams are regularly involved in educational activities. Despite their experience in both patient care and educational duties, clinical professionals may lack structured preparation on how to teach or mentor students. Staff members and students may initially assess a clinical instructor's credibility. Such situations are not unusual and should not

affect the educator's confidence in their professional capability. When the instructor gains self-assurance, instances of being tested will diminish over time (Bradshaw et al., 2021).

2.4.4 Challenges Encountered by Administrators in Clinical Learning Environment

Clinical education is a learning process that occurs in the clinical learning environment, where it is facilitated through clinical accompaniment by the clinical instructor and clinical staff at health institutions (Hobbs et al., 2024). It plays a vital role in health process education because clinical experience strengthens the theory content that health professions already have with more practical and hand-on skills. It teaches collaboration and teamwork to integrate theoretical knowledge into real-life care and develop a professional identity (Tadesse et al., 2024).

In the clinical learning environment, there are variety of factors that can significantly promote and hinder clinical learning among nursing students. Administrators managing clinical learning environment for nursing students face severe logistical, financial, and organizational bottlenecks. Their primary struggle centres on balancing regulatory compliance, limited hospital capacity, and strained institutional resources.

Historically, accrediting bodies devised standards that separate agency service duties from student educational requirements in order to ensure that students receive an adequate education while allowing for sufficient faculty oversight. The complexities of the fast-evolving health care delivery system are exacerbating the difficulties of obtaining clinical learning opportunities in hospital considering this problem and the number of admissions (Afaya et al., 2026). Regulatory organizations have voiced concerns about the rise of non-compliant middle-level training colleges. These institutions usually operate without certified hospital relationships, suitable training, or adequate clinical facilities (Panda et

al., 2021).

Financing student transportation, clinical evaluation logistics, and personal protective equipment while rigorously adhering to Nursing Council of Kenya mandates creates budgetary and regulatory difficulties (Afaya et al., 2026).

Furthermore, a lack of facilities and the absence of necessary equipment resulted in lost time and delays in patient treatment; this teaching environment was unpleasant for the students.

According to a survey conducted by Tedasse et al. (2024), nearly all respondents agreed that there is a lack of committed effort or attention from government organizations in providing adequate funding to purchase instructional equipment in universities in accordance with curriculum requirements. They also noted an uneven distribution of instructional materials across regions and a lack of priority from higher authorities in purchasing medical equipment required for demonstrations.

Administrators face a challenge in recruiting and keeping talented workers. Heavy patient loads leave hospital nurses with little time to supervise trainees, causing administrators to deal with substantial staff turnover (Panda et al, 2021).

Nursing instructors and learners require adequate, appropriate, and relevant physical facilities, such as classrooms, offices, libraries, skills labs, furniture, instructional materials, and clinical facilities such as wards, clinics, and rural health centers. Rural health facilities include NCK-approved teaching hospitals, rural health training units, and health centers (Tadesse et al., 2024).

The clinical learning environment is a multifaceted social phenomenon that influences student learning outcomes in clinical settings. The quality of practice placement is critical

to the development of competent and confident professional nurses. Managing competition among several nursing schools for the same authorized clinical locations is a challenge for administrators. This causes severe overcrowding in wards, jeopardizing student safety and reducing hands-on learning opportunities.

Even in countries where nursing is a well-developed profession, there are few efficient clinical settings. Poor clinical conditions prevent students from improving their nursing skills (Panda et al., 2021).

The clinical context in which nursing students practice varies widely, which may influence the student experience. One of the most important aspects of student learning is for nursing students to fit in with staff and clients. However, this is not always true. Administrators are tasked with mitigating hazardous ward dynamics. They must actively address excessive student anxiety, incidents of bullying or horizontal violence by medical staff, and overall student safety (Jafarian-Amiri et al., 2020).

The majority of students are overwhelmed and disoriented by the sights, sounds, and smells associated with the hectic clinical environment, patients, and clinical circumstances, leaving them feeling as if they do not belong in the clinical regions. Some students saw the patients' pain and suffering as a trigger for their own feelings of helplessness (Berndtsson et al., 2020).

Clinical education necessitates the creation of a supportive environment for learners and nursing students who require assistance in being prepared for their future careers. The examined research mostly focused on violence against nursing educators, staff, patients, and patient companions. In a quantitative study, nursing students' experiences with vertical violence in clinical settings revealed that, as one of the major challenges of student support,

this type of violence has numerous and varied manifestations, including humiliation and blaming students, rejection, exploitation, discrimination, bullying, and student support poverty. Administrators must constantly control these toxic ward dynamics to reduce stress and anxiety in the therapeutic context (Jafarian-Amiri et al., 2020).

To give psychological support to nursing students, administrators must reorganize clinical education, create more chances for student invention, reduce the number of instructors, and strive for effective clinical teaching. This would allow nurse educators to verify that obsolete laboratory equipment in schools corresponds to the advanced diagnostic or therapeutic technologies students face in modern hospitals (Jafarian-Amiri et al., 2020).

According to Tadesse et al. (2024), a brief clinical placement in a range of clinical settings reduces the sense of belonging in nursing due to the length of time required. The length of the clinical placement was less essential than the direction and support provided. A well-supported placement, regardless of length, has the potential to offer students with a sense of welcome.

Nursing students require additional time at the bedside to help them connect their academic knowledge to practical experience. Therefore, nursing students should be given appropriate clinical placement time. Administrators in collaboration with Nursing Council should ensure that the curriculum is tailored to allow nursing students adequate time to practice. Nurses determined that nursing students were less prepared for clinical teaching than average Cant et al., 2021).

Concerns about students' readiness for clinical learning placements must be addressed. Administrators are responsible for scheduling induction sessions and meetings to address academic and hospital staff misalignment. It is extremely vital to manage the friction

produced by inadequate communication and uncoordinated schedules between universities and host healthcare facilities (Hakvoort et al., 2022).

2.5 Strategies to Enhance Clinical Learning Environment

The clinical learning environment (CLE) is an important part of nursing education because it provides a setting in which students can apply theoretical knowledge, develop clinical skills, and foster professional values. A favorable CLE has been associated with increased student satisfaction, competence, and preparedness for practice (Bsharat et al., 2025). However, issues such as inconsistent supervision, inadequate resources, and a theory-practice divide can impede learning outcomes. In response, a growing body of literature has investigated how to improve the CLE, with a focus on mentorship, communication, curriculum alignment, resource provision, and student well-being.

A study conducted in Ghana found that frequent interaction with supervisors and successful supervision are connected with higher ratings of clinical experience among undergraduate nursing students (Ziba et al., 2021).

Structured mentorship programs are frequently suggested for providing constant instruction and role modeling to pupils. Units should be created and allocated to clinical staff who are specifically trained to coach students. This paradigm encourages a highly collaborative learning environment (Zhang et al., 2022). Nurse preceptors and educators should get ongoing professional development to improve their formal teaching and mentoring skills. Formal training in teaching methods, assessment, and feedback delivery has a favorable impact on and fosters goal orientation in students' clinical learning and student-centered evaluation. The study concluded that evidence-based modeling confirms mentorship's importance for both healthcare and educational systems in improving

students' clinical competencies, professional growth, and commitment to the nursing profession and clinical learning environment (Mikkonen et al. 2020).

As lifelong learners, mentors can experiment with learning methodologies while still students by arranging and organizing their own learning. This promotes the development of professional skills and capabilities. Staying current in clinical practice improves mentors' capacity to balance academic instruction and clinical obligations (Kurt et al.,2022). Mentors with a deep awareness of areas to emphasize arrange clinical learning experiences so that undergraduate nursing students can learn and practice nursing skills successfully and satisfactorily (Adam et al., 2021).

According to Bradshaw et al. (2021), nurse educators must decide the most efficient use of time for themselves and their students. Careful decisions must be made about what content to include or exclude from learning activities. Expert knowledge in a specific profession helps to solve practical difficulties, but it must be combined with diagnostic thinking to be useful when managing patients. Faculty development, clinical teaching methodologies, and institutional coordination all contribute to educational resilience (Bsharat et al., 2025).

When the preceptor-student ratio is reduced, individualized attention and skill acquisition improve. This allows nurse preceptors and nurse educators to have one-on-one sessions with nursing students (Ayalew, 2025). Effective collaboration between academic institutions and clinical sites is critical to harmonizing learning objectives and expectations. According to the findings of a study conducted by Adam et al. (2021), students reported a high level of satisfaction with their clinical learning environment, which was connected with a positive institutional working relationship between the university and hospital.

Collaboration between universities and hospitals is necessary to improve teaching performance.

It is critical to enhance the clinical learning environment. To increase quality, colleges must provide enough assistance for the practicing nurses who mentor these students. Recognition and incentive schemes for clinical personnel who excel at teaching have been demonstrated to stimulate ongoing mentorship (Livingstone, 2023).

Students may seek assistance in learning how to cope with personal concerns as well as difficult coworkers or clients. Nurses working in clinical settings need assistance from training institutions to facilitate safe student learning and retain trained teachers. In conclusion, faculty from the educational institution should be accessible to both instructors and pupils. The presence of professors in distant assignments fosters professional interactions between educators and students (Mirzanezam et al., 2024).

Regular collaborative meetings, coordinated learning plans, and explicit role descriptions help to close institutional gaps. Clearly defined roles enable stakeholders to balance other responsibilities with active student instruction without being overloaded by non-educational work (Bsharat et al., 2025). Administrators should set up feedback loops in which students, preceptors, and instructors provide timely evaluations. These are related with improved learning results.

Knowing how to provide feedback on clinical performance and written clinical assignments is an essential component of education. One approach is to highlight both good elements of performance and areas for improvement (Zhang et al., 2022). Timely feedback can help students avoid forming inaccurate assumptions about clinical competence and

improve future performance. Nurse preceptors and educators should provide feedback that is consistent, confidential and appropriately formatted. (Bradshaw et al., 2021).

An important goal of clinical education is to offer students interesting experiences which encourage them to think and act like complete care providers. By gathering feedback from both the learner and clinical staff, the educator can assess whether the task is overly difficult or failing to engage the learner, and make necessary adjustments accordingly. Peer-to-peer feedback is underutilized, but when done in writing, it can serve as a vital evaluation tool for student-generated professional content under mentorship (Bradshaw et al., 2021).

Increasing students' self-awareness is a primary work objective. It is critical to communicate feedback given by staff and instructors that affirm learner's professional conduct and those that raise concerns. At this point, educators must refocus the student in a professional manner to protect his or her safety. Reflective writing is one way to provide students with feedback on their critical thinking skills. Students' critical thinking improves when they engage in analytical journaling projects derived from Paul's critical thinking framework (Bradshaw et al., 2021).

Positive reinforcement through feedback enhances students' self-assurance and promotes greater autonomy. Individualized responses from faculty helps students understand the instructor's view of their progress. This need demonstrates both the instructor's significance in offering guidance and providing feedback that learners rely on for clinical achievements and shortcomings. Additionally, feedback allows the learner to improve his or her practices by receiving guidance from an experienced therapist (the teacher) (Bradshaw et al., 2021).

The skills lab can be utilized to provide successful educational opportunities across different course components. Learners are guided toward attaining set competency goals through step-wise learning, beginning with familiar tasks and advancing to intricate clinical skills including procedures such as suctioning (Bradshaw et al., 2021). The teachers in the clinical skills laboratory can tailor training to every learner's unique skills and learning approaches.

Simulation-based education is commonly mentioned as a tool for preparing students for complicated clinical circumstances before they begin practice. Integrating case-based learning and revising curricula to reflect current clinical guidelines can help to narrow the gap between classroom training and real-world practice.

The use of these techniques contributed to "an engaging learning space that connects classroom learning with clinical application, fosters self-reflection and nurtures critical thinking." Each teaching and learning session, whether conducted in-person or online, should offer a distinct and intellectually challenging experience. Educators should aim to diversify their instructional strategies instead of relying on the familiar, yet passive practice of delivery information rather than actively facilitating learning (Bradshaw et al., 2021).

Clinical instructors must have a thorough understanding of their subject topic. They should have surrounded wide knowledge with ties between the numerous theoretical knowledge students have learned in the classroom and the actual environment. For example, if a student has just collected a urine sample from a patient, he or she may be asked to explain the anatomy and physiology of the kidneys, as well as the common bacteria found in urine. This transfer of knowledge and connection could have stemmed from their human biology and microbiology presentations. Students will experience what it would have been like for

them to perform an intimate treatment. The clinical teacher's theoretical and clinical expertise, when applied to nursing practice, as well as attitude toward the nursing process, will influence teaching efficacy (Wahabe, 2024).

Ongoing care and teachable moments provide good opportunities to challenge pupils to progress through direct questions. Clinical instructors should use higher-level questions to help students think critically about patient-based findings and theoretical knowledge, and translate this understanding into clinical decision-making and patient management. Avoid spoon-feeding the solutions. Make the students look up policies, procedures, and medical terminology. This allows them to apply and become self-directed in their pursuit of knowledge in the profession (Bradshaw et al., 2021).

A friendly and inclusive clinical atmosphere promotes student participation and confidence. A study conducted by Bsharat et al. (2025) found that a favorable instructional environment and supportive supervisory relationships significantly improve nursing students' clinical learning. The educational milieu on the ward influences nursing students' motivation to pursue a nursing career.

Ward managers must create a positive clinical teaching environment and encourage students to connect on both theoretical and practical levels. This can be accomplished through effective feedback systems that allow students to have a more positive clinical learning environment as well as meaningful experiences that help them develop their professional duties and skills. Nursing students need a clinical environment that promotes support and encouragement in order to learn clinical practice skills (Zhang et al., 2022). A good learning environment consists of an engaging learning environment, student

orientation to the workplace, and a positive interpersonal relationship between students and tutors (Adam et al., 2021).

Clarity and thoroughness are required when teaching in nursing education, with the goal of achieving outcomes that reflect established industry standards. This encourages students to take a more comprehensive approach to learning through conversation, expression, and interpretation. The presence and engagement of mentors is critical in creating a good learning environment. Rodriguez-Garcia et al. (2021) suggest that the clinical learning environment and supervision should have a favorable link with student satisfaction. This was reinforced by Woo et al., 2020, who found that most nursing students were moderately satisfied with their clinical learning environment, showing a positive perspective.

Orientation programs that introduce students to the clinical site's workflow, procedures, and expectations help reduce anxiety and improve preparation. The goal is to improve clarity and organization around the students' roles for successful clinical performance. Orientation to the clinical learning setting enables students to provide effective assistance in the hospital.

The literature highlights the value of psychosocial assistance during clinical placements. Stress management workshops, peer support groups, and easily accessible counseling services have been associated to lower burnout and higher academic achievement (Mirzanezam et al., 2024).

Instructors must be aware of potential concerns, know their students, and demonstrate an interest in their students' progress in the program. Students experiencing academic difficulties must be identified in good time and inspired to share issues with their instructors without fear of consequences and humiliation. Identifying patterns of

concerning behaviour, addressing them directly with the student and developing a jointly supported improvement strategy is crucial (Bradshaw et al., 2021).

Several studies recommend for multi-component therapies that address multiple parts of the CLE at once (Adam et al., 2021). For example, integrating preceptor training, simulation-based preparation, and structured feedback systems has been found to achieve greater improvements than individual strategies. Maintenance and development in these areas could result in a high level of satisfaction with undergraduate nursing students' clinical rotations, ultimately improving clinical education.

Nurse educators must recognize the importance of exploring curriculum objectives, the learning environment, clinical instructor experience, and students' individual characteristics through students' perceptions, which can have a significant impact on their achievement and performance level (SoFoush et al., 2021).

Faculty-led curriculum evaluations can be valuable in a variety of ways. It may raise teachers' awareness and appreciation for the curriculum, broaden their ability to design and implement it, assist them in developing a deeper understanding of a variety of curriculum concepts, encourage their commitment to evidence-based nursing education, and provide them with a sense of empowerment (SoFoush et al., 2021).

2.6 Summary of Literature Review

The literature shows that the clinical learning environment is an important platform for nursing students to develop and perform their responsibilities as learners, caregivers, and team members. Stakeholders have important roles in the clinical learning environment. These responsibilities are critical for nursing students' successful transition from academic to clinical settings, ensuring they are well prepared for their future jobs as competent

nurses.

These responsibilities are determined by a variety of circumstances, including supervision, institutional support, and overall learning environment quality. The literature reveals that CLE issues are multidimensional and interrelated, affecting all stakeholders. Addressing these difficulties needs a multifaceted approach that includes curricular alignment, faculty-clinical site coordination, mentorship training, and resource allocation.

However, the extent to which students may take use of these opportunities is determined by the quality of supervision, the availability of resources, and the clinical setting's overall organizational culture. Addressing student problems and strengthening clinical training systems are critical to improving nursing education and providing high-quality healthcare services.

While numerous solutions have been offered, there has been little longitudinal study examining their long-term influence on student competence and patient care outcomes.

Furthermore, most research concentrate on student viewpoints, with few investigating the perspectives of clinical instructors, faculty, and administrators. There are very few cross-cultural comparisons, which limits the generalizability of the findings

According to the research, improving the CLE needs concerted efforts in mentorship, communication, curricular alignment, resource allocation, and student support. Evidence supports organized preceptorship, simulation-based learning, collaborative planning, and well-being programs. However, further research is needed to assess the long-term efficacy of these tactics and create context-specific models for a variety of healthcare settings. The World Health Organization (WHO) advises ongoing investments in nursing education and clinical training to improve healthcare outcomes.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction to the Chapter

This chapter present the procedure and methodology that was used in this study. The chapter focuses on the following: research design, study site, study population, sample size determination, sampling procedure, instrument, data collection, data analysis procedure and ethical consideration.

3.2 Research Design

The research design used in this study was a cross-sectional mixed method design. Mixed methods research provides a more complete understanding of complex phenomena in the clinical learning environment. The study is founded on Empiricism theory, which assures that judgments about the learning environment are not theoretical but rather grounded in what stakeholders encounter. This study employs grounded theory to map the social characteristics, discourses, and roles of nursing students in a clinical learning context.

No hypothesis was used, the study sought to answer research questions in line with the objectives.

3.3 Study Site

The study site was Meru County Teaching and Referral Hospital, Chuka County Teaching and Referral Hospital and Nyeri County Teaching and Referral Hospital. These hospitals host an organized clinical placement program in which students are exposed to a wide range of patient cases and interdisciplinary interactions.

This was a third of the nine level five hospitals in the Central and Eastern regions of Kenya according to the Ministry of Health Kenya. KeMU, Chuka University, Kenyatta University

and Dedan Kimathi University were purposely selected out of nine universities in Central and Eastern Kenya who had BSc nursing programs running at the time of study. These universities were selected because their BSc nursing students share the same hospitals as clinical learning environments. Since the population of hospitals and universities in these regions is small, this study adopts a high sampling fraction of 1/3 which comfortably exceeds the 20% to 30% minimum baseline recommended by Gay and Diehl (1992) for small scale descriptive and organizational research.

3.4 Study Population

The study population comprised 569 nursing students doing their undergraduate studies in the four selected universities., 250 nurse preceptors working in the three selected health facilities, 34 educators from the selected universities, and 7 administrators from the selected health facilities and universities.

3.5 Sample Size Determination

Undergraduate nursing students and nurse preceptors were sampled to get a representative number for the study.

The sample size for undergraduate nursing students and nurse preceptors was determined through the computation derived from Taro Yamane as follows:

$$n = \frac{N}{1 + N(e)^2}$$

In the formula above: **n** is the required sample size from the population under study; **N** is the whole population that is under study; **e** is the precision or sampling error which is 0.05.

The sample size for undergraduate nursing students was calculated as follows:

$$n = \frac{569}{1 + 569(0.05)^2}$$

$$n = \frac{569}{1 + 1.4225}$$

= 235 nursing students

The sample size for nurse preceptors was calculated as follows:

Nurse preceptors:

$$n = \frac{250}{1 + 194(0.05)^2}$$

$$n = \frac{250}{1 + 0.485}$$

= 153 nurse preceptors

A census was used for the thirty-four nurse educators and the seven administrators were not sampled because it involved inclusion of all subjects who are directly involve in clinical teaching of undergraduate nursing students in the target population.

To ensure proportional representation, the nursing students' study population was stratified by universities. Each university had an average of 150 nursing students in the 2nd, 3rd, and 4th years of training. The nurses were also stratified by hospitals. Each hospital had an average of 100 nurses. The sample distribution of respondents was based on the sample frame from each university and hospital. as shown by the table below:

Table 1: Sample Distribution

Institution	**Students**	**Nurse preceptors**	**Nurse educators**	**Administrators**
Chuka University	47(27.2%)	0	4(17.4%)	1
Dedan Kimathi University	45(26.0%)	0	7(30.4%)	1
Kenya Methodist University	46 (26.6%)	0	5 (21.7%)	1
Kenyatta University	35 (20.2%)	0	7 (30.4%)	1
Meru Level Five Hospital	0	58(41.4%)	0	1
Nyeri Level Five Hospital	0	37(26.4%)	0	1
Chuka Level Four Hospital	0	45(32.1%)	0	1
Total	**173(100%)**	**23(100%)**	**140(100%)**	**7(100%)**

3.6 Sampling Technique

It was anticipated that not all participants would consent to the study, therefore, any participant who agree to join the study was recruited. All consenting participants attending clinical learning placement under the study and who had presented themselves to the clinical learning environment for practice had the questionnaire filled after they signed the informed consent form.

3.6.1 Undergraduate nursing students

Stratified random sampling was used for students according to the year of study (2^{nd}, 3^{rd}, and 4^{th} year of study). Proportionate random sampling was used to select participants from each stratum. Participants were recruited at clinical learning environment where they had gone to participate in the clinical learning.

3.6.2 Nurse Preceptors

Convenience sampling was employed to select nurse preceptors where participants were recruited at the clinical learning environment. Those who consented were given the questionnaires to fill after they signed the informed consent form.

3.6.3 Nurse Educators

A census was used because the population is small and accessible.

3.6.4 Administrators

Census was used for administrators because it involved inclusion of all subjects in the target population.

3.7 Study Instruments

3.7.1 Questionnaire

A pre-coded self-administered questionnaire (Appendix 1) was developed and used to collect quantitative data from the sampled undergraduate nursing students, nurse preceptors and nurse educators. The questionnaire included the respondents' demographic data, questions related to study objective areas: roles of stakeholders, learning opportunities, challenges encountered and strategies to improve clinical learning environment. The first part of the questionnaire consisted of questions on personal data; part two consisted of questions on the role of stakeholders in clinical learning environment; part three consisted of questions on opportunities in practical training setting undergraduate nursing students, part four consisted of questions on challenges in clinical learning environment of nursing students and part five consisted of questions on strategies used to improve clinical practice setting for undergraduate nursing students.

3.7.2 Key Informant Interview Guide

A key informant interview guide was used to collect qualitative data from administrators (Appendix 3).

3.7.3 Reliability

To assess the internal consistency reliability of the situational analysis questionnaire, Cro nbach's alpha (α) was calculated for each scale or subscale. This statistic measures how c losely related the items are as a group, providing an estimate of reliability as stated by Cronbach (1951) and Nunnally & Bernstein (1994).

A pretesting was done at the University of Embu and Embu Level Five Hospital which involved 18 undergraduate nursing students, 15 nurses and 3 educators to identify

inconsistencies and lack of clarity in the questions. Accurate and careful phrasing of each question to avoid ambiguity and leading to a particular answer ensured reliability of the data collection instrument. Cronbach alpha reliability test was done to ascertain internal consistency of the research instrument. According to Cooper and Schindler (2014), the accepted alpha coefficient ranges from 0.7 and above. The results are indicated in the table 2 below.

Table 2: Reliability Results

Instrument	**Cronbach's alpha**	**No. of Items**
Student questionnaire	0.854	23
Staff questionnaire	0.891	18
Average	0.872	

The reliability result for student questionnaire was 0.85, while for the staff questionnaire was 0.891 giving an average reliability result of 0.872. This, therefore, means that the instruments were consistent and reliable in collecting the information required for this study. This ensured that the items supported and guided the research objectives and literature reviewed.

3.7.4 Validity

The researcher conducted a content validity by giving the instruments to the medical education experts to determine whether the instruments comprehensively cover all aspects of clinical learning environment intended to assess.

The questionnaire was given to 18 undergraduate nursing students, and 3 educators from University of Embu and 15 nurses from Embu Level Five Hospital to determine whether the instrument appears appropriate to respondents.

3.9 Data Collection Protocol

Data was collected by the principal researcher and two research assistants. Two research assistants were recruited to assist in data collection. They were given an explanation on the purpose of the study, its objectives and were trained in the use of data collection tools prior to commencement of data collection. 235 students and 153 nurse preceptors, 23 nurse educators and 7 administrators from selected universities and hospitals were purposely selected. A semi-structure questionnaire and interview guide were used to collect data. The questionnaires were given only to consenting eligible respondents after a full explanation of the purpose and benefits of the study. The respondents signed an informed consent before embarking on filling the questionnaire. They were given adequate time to fill the questionnaire.

After completion, the questionnaires were collected from the participants by the principal researcher or by the research assistants. In case of any difficulties among the respondents in filling questionnaires, the researcher or research assistants assisted in clarifying the difficult part for ease of understanding. The study assumed that the respondents are proficient in English and would comprehend the questions well and would be open and honest in responding to the questions.

The key informant interview guide was used by the principal researcher after obtaining an appointment and scheduling a meeting with the administrators. The researcher asked questions and wrote down responses as given by the respondents.

3.10 Data Cleaning and Storage

After collection of the questionnaires, the principal researcher verified them for accuracy and completeness. All information captured on the questionnaire was entered into the computer database. Data cleaning was validated periodically and then all data was merged to one complete database. Two backup copies were maintained. The errors identified during the validation exercises were confirmed by checking from the hard copy questionnaires. All filled questionnaires were stored in a lockable cabinet by the researcher and access to it was restricted to authorized person only.

Data was double-entered and validated before final analysis.

3.11 Data Analysis

The SPSS software version 26 was used for analyzing the data. Frequencies were calculated for the various responses as per the study objectives. Descriptive statistics were used to group the data in ways to make it easier to make inferences. Frequencies and percentages among the variables identified by the respondents were categorized to identify the most and least frequent. Descriptive statistics was used to present data in form of bar charts, frequency tables and pie charts. A statistician was sought to ensure that all aspects of the study objectives were attended to during the analysis. Subgroups according to various variables were compared with chi-square test for trends. Key informant interview was hand written word by work immediately after each interview. Meaningful units were extracted from the statements of participants, then units with similar meaning were placed into themes. The analysis was done through thematic analysis of data and report done by verbatim reporting quotation of data.

3.12 Ethical Consideration

A research proposal was written following the approval of the research concept by Moi University Senate. The proposal was then submitted to IREC (MTRH/Moi University) and permission to conduct this study was obtained (Ref: IREC/2016/93), NACOSTI (Permit No.: NACOSTI/P/18/71046/22658). The researcher wrote letters to the County Commissioners, County Education Officers, CEOs of the health facilities and VCs of the universities requesting for permission to carry out the study before data collection exercise was undertaken.

Written informed consent form was prepared and given to each participant. The researcher explained the data collection process giving assurance that confidentiality of responses will be maintained. All efforts were carried out to maintain confidentiality and anonymity of participants at all times during the study.

The participants were not required to indicate their names, personal file numbers or index/registration numbers on the questionnaire. Rather the questionnaires wer coded to allow anonymity. The participants were informed of the right to withdraw from the study anytime. It was explained to them that although there were no direct personal benefits, the findings of this study would serve to provide a collective benefit to the nursing profession. All data of the study was kept in locked cabinets. All computers having data related to the study had passwords where only the principal researcher could access the information related to this study.

3.13 Study Limitation

Securing consent was a challenge from the participants since they had reservations with regard to answering some questions which may be considered a threat to their situation in

the clinical placement or curriculum. This factor was minimized by providing full explanation about the study purpose and assuring confidentiality, maintaining an environment conducive for filling questionnaires and conducting interviews and promising anonymity.

CHAPTER FOUR

4.0 RESEARCH FINDINGS

4.1 Introduction

This chapter deals with the interpretation of the findings of the study with regard to the stated objectives and research questions. The respondents were divided into categories namely: undergraduate nursing students, nurse preceptors, nurse educators and administrative staff. Presentation of the findings included demographic characteristics of the respondents, their roles in clinical learning environment, opportunities they identified in clinical learning environment, challenges they encountered in clinical learning environment and strategies to improve clinical learning environment for undergraduate nursing students.

4.2 Response Rate

In this study the rate of usable questionnaires was high as described by table 3 below

Table 3: Response Rate

Respondents	**Nursing students**	**Nurse preceptors**	**Nurse educators**	**Administrators**
Sample size	235	153	34	7
Response rate	173	140	23	7
Return rate %	73.7%	91.5%	67.6%	100%

4.3 Demographic Characteristics of Nursing Students

4.3.1 Demographic Characteristics of Nursing Students

The distribution of demographic characteristics among nursing students is shown on table 4 below. The mean age was 23 years. Approximately 107 (61.8%) of the nursing students who responded to the questionnaire were female and 66 (38.2%) were male. About 60 (34.7%) were in their second year of training, 60 (34.7%) were in their third year of training and 53 (30.6%) were in their fourth year of training.

Table 4: Demographic Characteristics of Nursing Students

Demographic characteristics	**Frequency**	**Percentage (%)**
Age in years		
18-20	43	24.9
21-24	98	56.6
25-28	11	6.4
29+	21	12.1
Sex		
Male	66	38.2
Female	107	61.8
Year of study		
2nd year	60	34.7
3rd year	60	34.7
4th year	53	30.6

4.3.2 Demographic Characteristics of Nursing Preceptors

The distribution of demographic characteristics among nurse preceptors is shown on table 5 below. Out of 140 nurse preceptors who responded to the questionnaire approximately 96 (68.6%) were female and 44 (31.4%) were male. About 113 (80.7%) were staff nurses and 27 (19.2%) were nursing officers in charge of wards.

Table 5: Demographic Characteristics of Nurse Preceptors

Demographic characteristics	**Frequency**	**Percentage (%)**
Sex		
Male	44	31.4
Female	96	68.6
Position held		
Ward in-charge	27	19.2
Staff nurse	113	80.7

4.3.3 Demographic Characteristics of Nursing Educators

The distribution of demographic characteristics among nurse educators is shown on table 6 below. Out of 23 nurse educators who responded to the questionnaire 14 (60.9%) were clinical instructors and 9 (39.1%) were subject teachers.

Table 6: Demographic Characteristics of Respondents

Demographic characteristics	**Frequency**	**Percentage (%)**
Sex		
Male	14	60.9
Female	9	39.1

Position held		
Clinical instructors	14	60.9
Subject teachers	9	39.1

4.4 Roles of Stakeholders in Clinical Learning Environment

The study sought to determine the roles of stakeholder in the clinical learning environment for undergraduate nursing students. The stakeholders were the undergraduate nursing students, nurse preceptors, nurse educators and administrative personnel. The findings are present in categories as per the stakeholders.

4.4.1 Roles of undergraduate nursing students in clinical learning environment

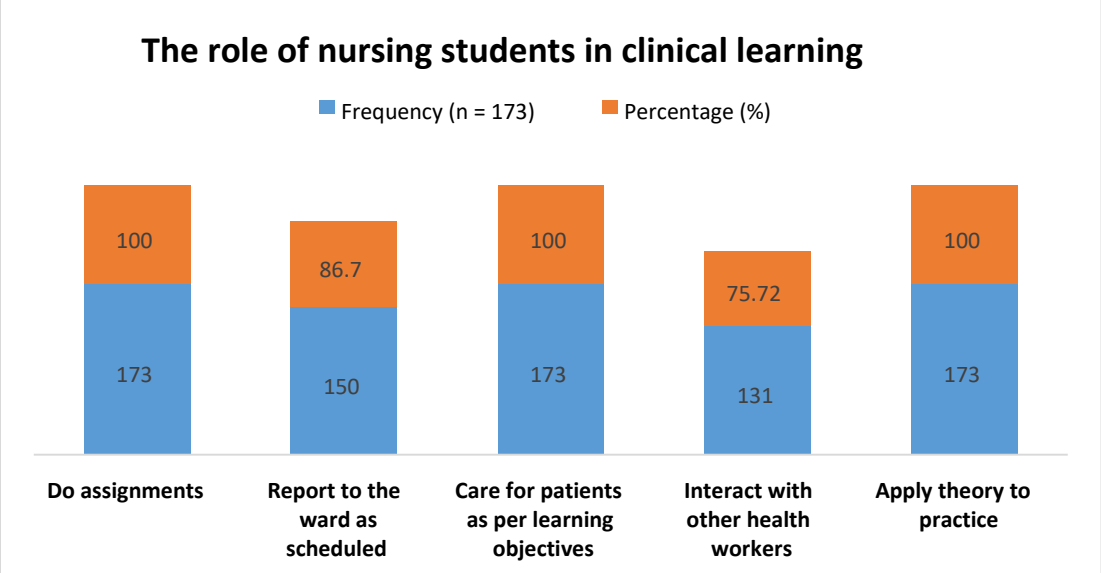

Figure 2: Roles of Nursing Students in Clinical learning

Figure 3 above shows the findings on the role of undergraduate nursing students in clinical learning environment. Approximately 173 (100%) of the respondents indicated that their roles were doing assignments, providing care to the patients and applying theory to practice. Approximately 150 (86.7%) of the respondents indicated that their role was to report to the ward as scheduled while 131 (75.7%) of the respondents indicated that their role was to interact with other health workers and work together in attending to patients' healthcare needs. This is shown by the figure 3 above.

4.4.2 Roles of nurse preceptors in clinical learning environment

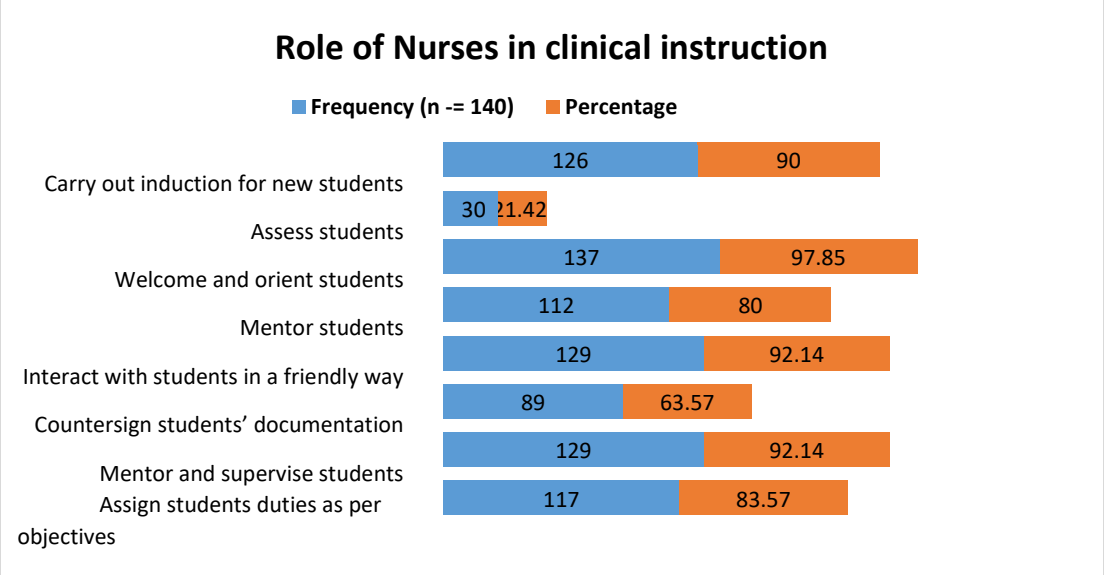

Figure 3: Role of Nurse Preceptors in Clinical Learning

The researcher sought to find out the role of nurse preceptors in clinical learning environment. The figure 4 above shows that the majority of the respondents 137 (97.85%) indicated that their role is to welcome and orient nursing students as they report to the clinical placement while 129 (92.14%) indicated that it is their role to mentor and supervise nursing students. Another 129 (92.14%) indicated that it is their role to interact with the students in a friendly way. Approximately 126 (90.00%) of the respondents mentioned

carrying out induction for new nursing students as their role. Approximately 117 (83.57%) of the respondents mentioned assigning duties to nursing students as per the clinical objectives as their roles. Approximately 112 (80.00%) of the respondents indicated that their role is to mentor students while approximately 89 (63.57%) indicated that their role is to countersign student documentation after performing procedures. Approximately 30(21.42%) of the respondents indicated that it is their role to assess students.

4.4.3 Nurse Educators' Response on Their Roles in Clinical Learning

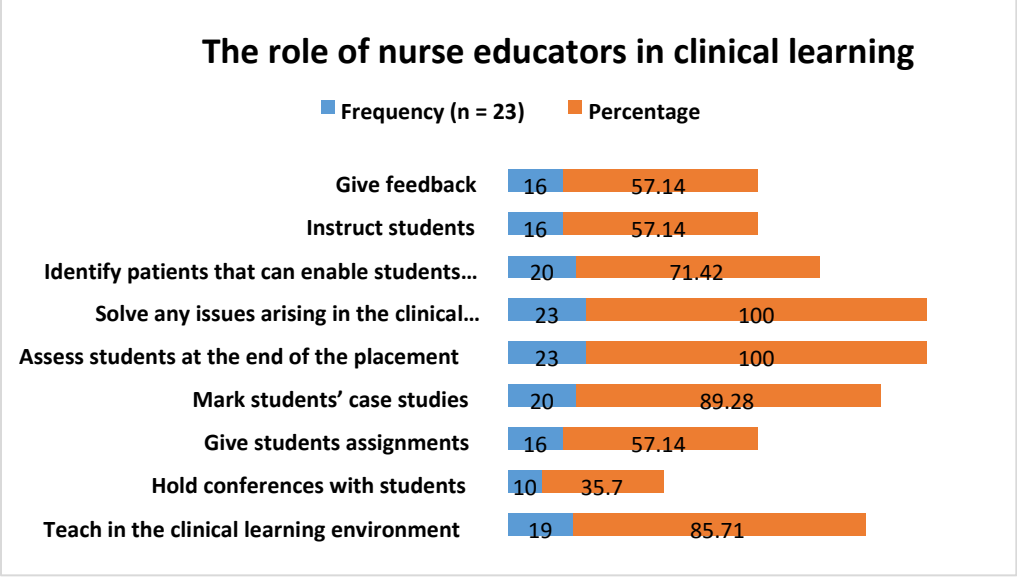

Figure 4: The Role of Nurse Educators in Clinical Learning

According to the response of the nurse educators on their roles in clinical learning environment as illustrated by Figure 5 above, 23 (100%) indicated that their role is to conduct student assessments after completion of the clinical placement and another 23 (100%) indicated that their role is to solve any issues arising in the clinical learning environment. Approximately 20 (89.2%) of the respondents indicated that their role is to mark students' case studies and another 20 (89.2%) indicated that their role is to identify

patient who can enable students achieve their objectives. Approximately 19 (85.7%) indicated that their role is to teach students in the clinical learning environment. Approximately 16 (57.1%) of the respondents mentioned giving students assignment as their role while another approximately 16 (57.1%) indicated that their role is to instruct students and another Approximately 16 (57.1%) indicated giving feedback as their role. Approximately 10 (35.7%) of the respondents indicated that it is their responsibility to hold conferences with students.

4.4.4 Roles of administrators in clinical learning environment

The researcher sought to determine the role of administrators in the clinical learning environment for undergraduate nursing students. The responses were categorized into four themes:

Theme 1: Student clinical experiences

Nursing leadership within healthcare institutions play a vital role in ensuring success of preceptor programs, as they offer structured support and advocate for time and environment necessary to foster relationships integral to effective preceptorship. In roles related to student clinical experiences, one participant said:

"I receive the students as they report to my hospital and talk to them about the rules and regulations governing the hospital. If they are new students then I give them a lay out of the hospital. Then I ask the various nursing officers in charge of the assigned ward to come and pick the students from my office." (Admin 1).

Two participants said:

"I deal with the disciplining of students whose issues land in my office." (Admin 1, Admin 3)

Discipline in clinical learning environment ensures, safe, efficient and ethical patient care while preparing students to demands of the nursing profession.

Theme 2: Staff related activities in clinical learning environment

Nurse preceptors and nurse educators require strong administrative support to effectively facilitate clinical instruction and mentorship for nursing students in hospital settings. Without this support, the quality of clinical training can suffer, impacting students' competence, patient care and the future nursing workforce. Three respondents said:

"I appoint the nursing officers to be mentors of the undergraduate nursing students and nursing officers to co-assess students at the end of every rotation." (Admin 1, Admin 3, Admin 5).

Another four respondents said:

"I appoint the clinical coordinator and approve the placement of students in the clinical learning environment." (Admin 2, Admin 4, Admin 6, Admin 7).

The administrators a responsible for assigning the people who will oversee students' activities in the clinical learning environment. Clinical learning experience is done away from the university and this needs transportation to and from the hospitals. One participant said:

"I plan and organize transport for university staff who are going to the clinical placement to supervise and assess students." (Admin 2).

One participant said:

"I call for meetings with the nurse educators to discuss the progression of student learning in the clinical placement." (Admin 2).

Theme 3: Financial responsibilities

Funds are needed to facilitate achievement of learning objectives in the clinical learning environment. One participant said:

"I verify the clinical budget done by the clinical coordinators and forward to the university management for approval." (Admin 2).

Theme 4: Administrative responsibilities

Administrators always have responsibilities of ensuring that activities in the clinical learning environment continues smoothly in order to achieve clinical objectives. In order to do that, there are several roles that they have to play. Concerning this them the responses were as follows. Two participants said:

"I call for meeting with stakeholders to plan the distribution and mentorship of students prior to their placement. In this stakeholders' meeting we discuss the successes and failures of the previous student placements" (Admin 1, Admin 5.

Another participant said:

"I give the report of students' clinical placement to the hospital board of management." (Admin 1, Admin 5)

The organization and selection of educational activities offered to the nursing students has a significant impact on the success of their clinical experiences, as evaluated by learning

outcomes and an internalized sense of fulfilment reflecting the administrators' philosophical approach to clinical learning. Two participants said:

"I identify clinical sites for clinical learning for nursing students." (Admin 2, Admin 4)

Another participant said:

"I organized and ensure that MOUs between the university and the health facilities are signed." (Admin 7).

4.5. Opportunities identified in clinical learning environment

4.5.1 Opportunities identified by undergraduate nursing students

Table 5: Opportunities identified by undergraduate nursing students

KEY: SA – Strongly agree (5); A – Agree (4); N – Not sure (3); D – Disagree (2); SD – Strongly disagree (1)

No.	Item	SA	A	N	D	SD	Mean Score
1.	All necessary paperwork for practice, assessment, logs and learning agreements were issued	31.80%	56.10%	4.60%	4.60%	2.90%	4.1
2.	There are adequate and functional equipment and supplies in the clinical learning environment	10.40%	56.60%	8.70%	20.80 %	3.50%	3.5
3.	I was given orientation on the type of clinical placement and told what was expected of me	34.70%	51.40%	3.50%	6.90%	3.50%	4.1
4.	I was allocated a preceptor within the first week of clinical placement	33.50%	43.90%	6.40%	15.00 %	1.20%	3.9
5.	The preceptor is aware of the relevant learning opportunities available	24.30%	46.10%	12.70 %	15.60 %	2.30%	3.7
6.	Clinical instructors were visible and supported preceptors within the clinical learning environment	19.70%	42.20%	5.80%	27.70 %	4.60%	3.4

7.	The number of patients for learning were enough	37.60%	47.40%	5.20%	6.40%	2.90%	4.1
8.	I was guided in the choice of clients to facilitate meeting learning objectives	19.70%	50.30%	6.90%	17.90 %	5.20%	3.6
9.	Hospitals were notified and were expecting us in the clinical learning environment	35.80%	46.20%	5.20%	9.80%	2.90%	4.0
10.	I was given an opportunity to learner from all cases including emergency and critically ill patients	22.00%	46.20%	6.90%	17.30 %	7.50%	3.6
11.	The practice placement has a favorable culture for learning	21.40%	54.30%	11.00 %	8.70%	4.60%	3.8

The findings reveal varied perception across the domains. Students reported a generally positive experience, with most agreeing that all necessary paperwork for practice, assessment, logs and learning agreements were issued. The mean score of 4.1 indicate strong satisfaction.

Responses on availability of resources were more neutral, with a mean score of 3.5. Students highlighted occasional shortages of essential equipment and learning materials, which hindered their ability to practice skills effectively.

Students reported a generally positive experience concerning supervision and support as evidenced by an average mean score of 3.7. Most of the students agreed that nurse preceptors provided adequate guidance and were aware of the relevant learning

opportunities available for students to meet clinical objectives. Clinical instructors were available and supported the nurse preceptors in the clinical learning environment.

Teamwork and collaboration scored an average mean of 3.9 reflecting positive perception on the culture in the clinical placement. The hospitals were notified and were expecting students in the clinical learning environment. Students felt welcomed into the clinical teams, though some noted challenges in being fully integrated into decision-making processes.

The domain on patient interaction received high rating, with a mean of 3.8. Students agreed that they had ample opportunities to interact with patients, which enhanced their confidence in provision of patient care.

4.5.2 Opportunities identified by nurse preceptors in clinical learning environment

Table 6: Opportunities identified by nurse preceptors

KEY: SA – Strongly agree (5); A – Agree (4); N – Not sure (3); D – Disagree (2); SD – Strongly disagree (1)

No.	Item	SA	A	N	D	SD	Mean Score
1.	All necessary paperwork for practice, assessment, logs and learning agreements were issued	16.40 %	50.70 %	14.30 %	12.90 %	5.70 %	3.6
2.	There are adequate and functional equipment and supplies in the clinical learning environment	10.70 %	54.30 %	11.40 %	22.90 %	0.70 %	3.5
3.	Students are given orientation on the type of clinical placement and told what was expected of them	52.90 %	40.00 %	2.10 %	2.90%	2.10 %	4.4
4.	Students are allocated a preceptor within the first week of clinical placement	29.30 %	49.30 %	7.90 %	8.60%	5.00 %	3.9
5.	I am aware of the relevant learning opportunities	19.30 %	63.60 %	14.30 %	2.90%		4.0

	available for student clinical objectives						
6.	Clinical instructors were visible and supported preceptors within the clinical learning environment	4.30%	25.00 %	23.60 %	37.90 %	9.30 %	2.8
7.	The number of patients for learning were enough for student clinical objectives	44.20 %	9.80%	2.80 %	8.50%	6.40 %	4.0
8.	Hospitals were notified and were expecting students in the clinical learning environment	47.80 %	37.80 %	2.10 %	10.00 %	2.10 %	4.2
9.	The practice placement has a favorable culture for learning	42.80 %	47.80 %	8.50 %	0.70%		4.3
10.	There is effective interpersonal communication between team members and nursing students	51.40 %	43.50 %	5.00 %			4.5

The findings reveal varied perception across the domains. Nurse preceptors reported a generally positive experience, with most agreeing that all necessary paperwork for practice, assessment, logs and learning agreements were issued. The mean score of 3.6 indicate strong satisfaction.

Responses on availability of resources were more neutral, with a mean score of 3.5. Nurse preceptors highlighted occasional shortages of essential equipment and learning materials, which hindered their ability to practice skills effectively.

Nurse preceptors reported a generally positive experience concerning supervision and support as evidenced by an average mean score of 4.1. Most of the nurse preceptors agreed that they provided adequate guidance and were aware of the relevant learning opportunities available for students to meet clinical objectives. However, availability and support from the clinical instructors scored the lowest with a mean of 2.8. Many nurse preceptors

expressed dissatisfaction with most of them disagreeing with the statement that clinical instructors were visible and supported the nurse preceptors in the clinical learning environment.

Teamwork and collaboration scored an average mean of 4.3 reflecting positive perception on the culture in the clinical placement. The hospitals were notified and were expecting students in the clinical learning environment. This allayed students' anxiety in a new clinical environment.

The domain on patient interaction received high rating, with a mean of 4.0. Nurse preceptors agreed that students had ample opportunities to interact with patients, which enhanced their confidence and communication skills.

Nurse preceptors strongly agreed that there was effective interpersonal communication between team members and nursing students. This domain received the highest rating with a mean of 4.5. Nurse preceptors felt that students were welcome into the clinical teams, though they may not fully participate in decision-making processes.

4.5.3 Opportunities identified by nurse educators in clinical learning environment

Table 7: Opportunities identified by nurse educators

KEY: SA – Strongly agree (5); A – Agree (4); N – Not sure (3); D – Disagree (2); SD – Strongly disagree (1)

No.	Item	SA	A	N	D	SD	Mean Score
1.	All necessary paperwork for practice, assessment, logs and learning agreements were issued	21.70 %	60.80 %	17.30 %			4.0
2.	There are adequate and functional equipment and supplies in the clinical learning environment	21.70 %	60.80 %	4.30%	4.30%	6.80%	3.8

3.	Students are given orientation on the type of clinical placement and told what was expected of them	17.30 %	65.20 %	8.60%	4.30%	4.30%	3.9
4.	Students are allocated a preceptor within the first week of clinical placement	21.70 %	43.40 %	4.30%	21.70 %	8.60%	3.5
5.	The preceptor is aware of the relevant learning opportunities available for student clinical objectives	8.60%	47.80 %	26.00 %	4.30%	8.60%	3.5
6.	I was visible and supported preceptors within the clinical learning environment	8.60%	43.40 %	17.30 %	30.40 %		3.3
7.	The number of patients for learning were enough for student clinical objectives	21.70 %	60.80 %	8.60%	8.60%		4.0
8.	Hospitals were notified and were expecting students in the clinical learning environment	47.80 %	43.40 %	8.60%			4.4
9.	The practice placement has a favorable culture for learning	13.00 %	69.50 %	8.60%	8.60%		3.9
10.	There is effective interpersonal communication between team members and nursing students	26.00 %	60.80 %		13.00 %		4.0

The findings reveal varied perception across the domains. Nurse educators reported a generally positive experience, with most strongly agreeing that all necessary paperwork for practice, assessment, logs and learning agreements were issued. The mean score of 4.0 indicate strong satisfaction.

A mean of 3.8 reflected positive perceptions of availability of resources. Nurse educators agreed that there were essential equipment and learning materials, which enhanced the ability for nursing students to practice skills effectively.

Nurse educators reported a generally positive experience concerning supervision and support given to students as evidenced by an average mean score of 3.6. Most of the nurse educators agreed that nurse preceptors provided adequate guidance and were aware of the relevant learning opportunities available for students to meet clinical objectives. However, there were a number of them who felt that their visibility and support for nurse precentors was not satisfactory.

Teamwork and collaboration scored an average mean of 4.2 reflecting positive perception on the culture in the clinical placement. The hospitals were notified and were expecting students in the clinical learning environment. This made nursing students feel welcome into the clinical teams.

The domain on patient interaction received high rating, with a mean of 4.0. Nurse educators strongly agreed that students had enough opportunities to interact with patients and learn from them leading to achievement of clinical objectives.

Nurse preceptors strongly agreed that there was effective interpersonal communication between team members and nursing students. This domain received a high rating with a mean of 4.0. This alleviated anxiety that would lead to stress in the clinical learning environment.

Table 8: Summary of Score

Indicator	Mean	Std. Dev.
Opportunities identified by undergraduate nursing students in clinical learning environment	3.8	0.3
Opportunities identified by nurse preceptors in clinical learning environment for undergraduate nursing students	3.9	0.5
Opportunities identified by nurse educators in clinical learning environment for undergraduate nursing students	3.8	0.3
Mean	3.8	0.4

The summary mean Likert score for undergraduate nursing students, nurse preceptors and nurse educators for the opportunities in clinical learning environment indicators were 3.8±0.3, 3.9±0.5 and 3.8+0.3 respectively indicating that the respondent's opinion oscillated between neutral and agree.

Table 9: Analysis of Variance

Source	SS	df	MS	F	Prob > F
Between groups	.09258336	2	.04629168	0.34	0.7132
Within groups	3.92616697	29	.135385068		
Total	4.01875033	31	.129637108		

There was no significant difference between the indicator responses from undergraduate nursing students, nurse preceptors and nurse educators on the opportunities identified from the respective categories in clinical learning environment at p=0.05.

4.5.4 Opportunities identified by administrators in clinical learning environment

The researcher sought to determine the opportunities that administrators found in the clinical learning environment for undergraduate nursing students. The participants consisted of seven administrators: three from the health facilities and four from universities. After analyzing the interviews with the participants regarding the opportunities available in the clinical learning environment for undergraduate nursing students, three key themes become evident. The findings obtained from the study demonstrates that approval of clinical learning environment, availability of adequate experiences in the clinical learning environment and adequate preparation of students, preceptors and clinical instructors are the opportunities available in the clinical learning environments for undergraduate nursing students.

Theme 1: Approval of clinical learning environment

Clinical learning environment is very crucial in preparation of competent nurses. Health facilities and training institution must be inspected and accredited by the Nursing Council of Kenya (NCK). One participant said:

"The clinical sites for training of my nursing students are enough."

And two others said:

"It is a good thing that Nursing Council of Kenya has approved my hospital for training of BSc nursing students." (Admin 1, Admin 3).

The also reported that training policies are in place to reinforce the approval and accreditation for training. Training policies are crucial because they ensure students receive adequate preparation, develop essential skills and navigate the complexities of healthcare settings, ultimately leading to improved patient care and student outcomes. Majority of respondents said:

"… there are policies and guidelines for clinical learning of undergraduate nursing students in the hospitals." (Admin 4, Admin 5, Admin 6, Admin 7).

Theme 2: Adequacy of experiences in the clinical environment

For the nursing students to get meaningful learning experiences, the clinical learning environment must be adequate. Participants further described that there are adequate experiences in the clinical environment. They said:

"…the goals for clinical training are in line with the Nursing Council of Kenya and that means we have no problem with the regulatory body as far as clinical learning is concerned." (Admin 2, Admin 3, Admin 4, Admin 6, Admin 7).

They further said:

"….the clinical experience in the hospital is appropriate enabling the nursing students to get adequate experiences." (Admin 1, Admin 4, Admin 6, Admin 7)

Theme 3: Adequate preparation of students, preceptors and clinical instructors

One participant who said:

"Some universities give us adequate support towards the clinical training." (Admin 3)

Three administrators said:

"… the availability of clinical log books, Nursing Council of Kenya manuals, MOUs, assessment tools and policies on conduct enable students to learn appropriately." (Admin 1, Admin 2, Admin 5)

4.6 Challenges in Clinical Learning Environment

4.6.1 Challenges identified by nursing students

Table 10: Challenges in clinical learning environment

KEY: SA – Strongly agree (5); A – Agree (4); N – Not sure (3); D – Disagree (2); SD – Strongly disagree (1)

No.	Item	SA	A	N	D	SD	Mean Score
1.	There is a learning resource centre or library within the clinical learning environment where I can use	5.80%	31.20%	14.50%	31.80%	16.80%	2.8
2.	ICT resources are available and accessible to students	9.20%	33.50%	9.80%	20.80%	26.60%	2.8
3.	Appropriate references and research materials are available for students	12.70%	19.70%	4.60%	47.40%	15.60%	2.5
4.	I got to work with my preceptor for a minimum of three shifts each week	8.70%	27.20%	8.10%	34.10%	22.00%	2.7
5.	Contact details and visiting times of the clinical instructors was clearly displayed on a noticeboard in the resource centre or practice area	14.50%	23.10%	9.20%	33.50%	19.70%	2.8
6.	Accommodation for short or long placement where students were located	10.40%	15.60%	4.00%	21.40%	48.00%	2.2

	away from the university was offered						
7.	Other health care professionals/team members were informed of my learning needs	13.30%	43.90%	16.80%	22.50%	3.50%	3.4
8.	I was encouraged to ask questions on practices that I was not sure of or were unsafe or not research based	18.50%	42.20%	9.20%	19.70%	10.40%	3.4
9.	Patients stay long enough to allow clinical learning objectives to be met	17.90%	50.30%	4.60%	19.10%	8.10%	3.5

Students highlighted the absence of a learning resource centre or library within the clinical learning environment with as indicated by a mean of 2.8. This may hinder their ability to seek clarification on the nursing care of patients.

Students indicated that ICT resource were not available and accessible making it hard for them to get updated information online to facilitate their decision-making in patient care. The mean score was 2.8.

The domain on availability of appropriate references and research materials for students scored a mean of 2.5 hindering the students from expanding their knowledge on the latest nursing best practices.

Support by nurse preceptors scored a mean of 2.7. Nursing student reported not being able to work with the nurse preceptor for a minimum of three shifts each week.

Contact details and visiting times of the clinical instructors was clearly displayed on a noticeboard in the resource centre or practice area had a mean of 2.8 indicating that students

felt that they could not be able to locate the clinical instructors when they were in need of them.

Students reported generally a negative experience on accommodation for short or long placement where students were located away from the university. Most of them disagreed on the provision of accommodation with a mean of 2.2 indicating a strong dissatisfaction.

4.6.2 Challenges identified by nurse preceptors in clinical learning environment for undergraduate nursing students

Table 11: Challenges identified by nurse preceptors

KEY: SA – Strongly agree (5); A – Agree (4); N – Not sure (3); D – Disagree (2); SD – Strongly disagree (1)

No.	Item	SA	A	N	D	SD	Mean Score
1.	I was inducted on teaching of undergraduate nursing students in the clinical learning environment		5.70%		94.30%		2.1
2.	There is a learning resource centre or library within the clinical learning environment where students can use	4.30%	18.60%	10.70%	30.70%	35.70%	2.3
3.	ICT resources are available and accessible for students to use	5.00%	18.60%	12.90%	37.90%	25.70%	2.4
4.	Appropriate references and research materials are available for students to use	6.40%	22.90%	10.00%	32.10%	28.60%	2.5
5.	Students got to work with their preceptor for	14.30%	18.60%	26.40%	35.00%	5.70%	3.0

	a minimum of three shifts each week						
6.	Contact details and visiting times of the clinical instructors was clearly displayed on a noticeboard in the resource centre or practice area	7.90%	17.10%	13.60%	45.00%	16.40%	2.6
7.	Accommodation for short or long placement where students were located away from the university was offered	8.50%	15.00%	22.10%	26.40%	27.80%	2.5
8.	Other health care professionals/team members were informed of students' learning needs	25.00%	33.60%	13.60%	27.10%	0.70%	3.6
9.	Students are encouraged to ask questions on practices that they were not sure of or were unsafe or not research based	30.70%	60.00%	5.70%	3.50%		4.2
10.	Patients stay long enough to allow clinical learning objectives to be met	25%	55%	4.20%	18.50%	5.70%	3.7

Nurse preceptors reported an average experience on induction on clinical teaching, with most disagreeing that they were inducted on teaching of undergraduate nursing students in the clinical learning environment. The mean of 2.1 indicated strong dissatisfaction with the preparation.

The availability of a learning resource centre or library within the clinical learning environment where students can use had a mean of 2.3 indicating that most nurse preceptors disagreed on the availability of this clinical learning support.

Availability of ICT resources are available and accessible for students to use had a mean of 2.4 showing that this domain was not well established in the clinical learning environment.

There were no appropriate references and research materials available for students to use as indicated by a mean of 2.5. This shows that most of the nurse preceptors disagreed on the availability.

Students got to work with their preceptor for a minimum of three shifts each week had a mean of 3.0 showing that most of the nurse preceptors agreed that they interacted with nursing students at least three shifts a week.

Contact details and visiting times of the clinical instructors was clearly displayed on a noticeboard in the resource centre or practice area. Most of the nurse preceptors disagreed on this giving a mean of 2.6.

Accommodation for short or long placement where students were located away from the university was offered was a domain that scored low. A mean of 2.5 indicated that students were not given accommodation making them seek the same in insecure areas. Some seek accommodation far away from the hospitals and end up getting late when reporting to their shifts especially in the morning.

4.6.3 Challenges identified by nurse educators in clinical learning environment for undergraduate nursing students

Table 12: Challenges identified by nurse educators

KEY: SA – Strongly agree (5); A – Agree (4); N – Not sure (3); D – Disagree (2); SD – Strongly disagree (1)

No.	Item	SA	A	N	D	SD	Mean Score
1.	I was inducted on teaching of undergraduate nursing students in the clinical learning environment	-	39.10%	-	60.90%	-	2.9
2.	There is a learning resource centre or library within the clinical learning environment where students can use	13.00%	26.00%	4.30%	52.10%	4.30%	2.8
3.	ICT resources are available and accessible for students to use	4.30%	26.00%	17.30%	47.80%	4.30%	2.9
4.	Appropriate references and research materials are available for students to use	-	34.70%	17.30%	47.80%	-	3.1
5.	Students got to work with their preceptor for a minimum of three shifts each week	8.60%	26.00%	30.00%	34.70%	-	2.9
6.	Contact details and visiting times of the clinical instructors was clearly displayed on a noticeboard in the resource centre or practice area	4.30%	30.00%	17.30%	43.40%	4.30%	2.3

7.	Accommodation for short or long placement where students were located away from the university was offered	13.00%	13.00%	8.60%	43.40%	34.70%	3.0
8.	Other health care professionals/team members were informed of students' learning needs	4.30%	30.40%	34.70%	21.70%	8.60%	3.7
9.	Students are encouraged to ask questions on practices that they were not sure of or were unsafe or not research based	4.30%	69.50%	13.00%	13.00%		3.3
10.	Patients stay long enough to allow clinical learning objectives to be met	17.30%	43.40%	4.30%	21.70%	13.00%	

Nurse preceptors reported an average experience on induction on clinical teaching, with most disagreeing that they were inducted on teaching of undergraduate nursing students in the clinical learning environment. The mean of 2.9 indicated strong dissatisfaction with the preparation.

The availability of a learning resource centre or library within the clinical learning environment where students can use had a mean of 2.8 indicating that most nurse educators disagreed on the availability of this clinical learning support.

Availability of ICT resources are available and accessible for students to use had a mean of 2.9 showing that this domain was not well established in the clinical learning environment.

There were no appropriate references and research materials available for students to use as indicated by a mean of 3.1. This shows that some of the nurse educators disagreed on this domain.

Students got to work with their preceptor for a minimum of three shifts each week had a mean of 2.9 showing that most of the nurse educators disagreed that nurse preceptors interacted with nursing students at least three shifts a week.

Contact details and visiting times of the clinical instructors was clearly displayed on a noticeboard in the resource centre or practice area. Most of the nurse educators disagreed on this giving a mean of 2.3. The nurse educators expected to check on students when they are available since the workload was quite heavy for them, so they could not give a definite time of their coming to instruct students in the clinical learning environment.

Accommodation for short or long placement where students were located away from the university was offered was a domain that scored low. A mean of 3.0 indicated that students were not given accommodation making them seek the same in insecure areas. Some seek accommodation far away from the hospitals and end up getting late when reporting to their shifts especially in the morning.

Table 13: Summary of Score

Indicator	**Mean**	**Std. Dev.**
Challenges identified by nursing students in clinical learning environment	2.9	0.4
Challenges identified by nurse preceptors in clinical learning environment for undergraduate nursing students	2.9	0.7
Challenges identified by nurse educators in clinical learning environment for undergraduate nursing students	2.9	0.4
Mean	2.9	0.5

The mean Likert score for undergraduate nursing students, nurse preceptors and nurse educators for the challenges in clinical learning environment indicators were 2.9±0.4, 2.9±0.7 and 2.9+0.5 respectively indicating that the respondent's opinion oscillated between disagree and neutral.

Table 14: Analysis of Variance

Source	**SS**	**df**	**MS**	**F**	**Prob > F**
Between groups	.053524958	2	.026762479	0.10	0.9079
Within groups	7.17888865	26	.276111102		
Total	7.23241361	28	.258300486		

There was no significant difference between the indicator responses from undergraduate nursing students, nurse preceptors and nurse educators on the challenges identified from the respective categories in clinical learning environment at p=0.05.

Regression analysis

The study conducted a linear regression analysis of the single variables and obtained model summary, ANOVA and regression coefficients of the variables. The results are as shown below:

Table 15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.838[a]	.703	.679	.11447

a. Predictors: (Constant), Challenges, Opportunities

The coefficient of determination, indicated by adjusted R square shows the rate of variation on clinical learning experience was significantly influenced by opportunities and

challenges identified in clinical learning environment variables. The adjusted R^2 of 0.679 illustrated that the two variables influenced clinical learning experience by 67.9%. The standard error of the estimate of 0.11447 illustrated that other variables not explained in the model influenced the effect.

Table 16: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.774	2	.387	29.518	.000[b]
	Residual	.328	25	.013		
	Total	1.101	27			

a. Dependent Variable: Effect, Predictors: (Constant), Challenges, Opportunities

The study sough to test the null hypothesis (H_0) that opportunities and challenges in the clinical learning environment do not significantly influence learning experience. The significance value of 0.000, $p<0.05$, indicated that opportunities and challenges identified in clinical learning environment significantly influenced the clinical learning experiences. Because the observed p-value is less than the conventional significance threshold of 0.05, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted.

This statistically demonstrates that opportunities and challenges within the clinical learning environment exert a highly significant influence on the overall learning experience of the students.

Table 17: Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.642	.253		6.500	.000
	Opportunities	.232	.060	.422	3.853	.001
	Challenges	.267	.043	.684	6.242	.000

a. Dependent Variable: Clinical learning experience

The resulting equation was,

$Y= 1.642+0.232X_1+0.267X_2$

Where;

Y= Clinical learning experience
X_1= Opportunities
X_2= Challenges

4.6.4 Challenges identified by administrators in clinical learning environment for undergraduate nursing students

The researcher sought to determine the challenges encountered by administrators in the clinical learning environment for undergraduate nursing students. After analysis of the interviews with the participants regarding the challenges encountered in the clinical learning environment for undergraduate nursing students, four main themes emerged. The findings obtained from the study demonstrated that staff related challenges, student related challenges, resource related and other challenges like collaboration between stakeholders and transportation of students from the universities to the hospitals for clinical experience were the challenges in the clinical learning environment for undergraduate nursing students.

Theme 1: Staff related challenges

The majority of participants said:

"... we do not have enough clinical instructors to help students in the hospital." (Admin 1, Admin 4). Another two participants said: *"Clinical instructors do not consistently come to supervise students in the wards." (Admin 3, Admin 5).* Another administrator said: *"we do not have enough staff to appoint some to be mentors to students. And even if the staffing is adequate most of the staff nurses are registered community health nurses yet Nursing*

Council of Kenya requires that a mentor for undergraduate nursing students should have a minimum of bachelor's degree or had a higher diploma in an area of specialization" (Admin 1). Lack of adequate number of staff make students feel unsupported in the clinical learning environment. The responses indicates that student supervision is at jeopardy and may compromise student clinical performance and patient safety. Effective supervision is critical to ensuring patient safety, student learning and professional development in clinical settings. Proper oversight helps students apply theoretical knowledge, develop clinical skills and adopt professional behavior while minimizing risks.

One participant said:

"… the clinical supervisors are also classroom teacher, so time is not enough to be with nursing students in the hospital because they have to hurry back to the university to teach." (Admin 2).

One of the participants said:

"Negative attitude nurses have towards nursing students has made students fear seeking guidance from nurses in the hospital." (Admin 2).

Theme 2: Student-related challenges

A positive attitude in nursing students during clinical learning experience significantly impact their learning and career development. The right attitude fosters competence, confidence and ethical practice, while a negative attitude can hinder progress and even compromise patient safety. One of the participants said:

"Some students and equally nurses have negative attitude toward each other or toward the clinical learning environment and activities going on there." (Admin 1). This becomes a challenge because it demands the nurse administrators' effort to deal with disciplinary

issues related to negative attitude in students. The university administrators put a lot of effort to mentor and counsel the students to help them change their attitude towards clinical nursing.

Another administrator said this:

"… the number of nursing students using a clinical site is too large leading to congestion in the clinical areas." (Admin 2, Admin 6). Another administrator said: *"mentorship is not possible because students are too many compared to the number of staff available in the ward. In that case nurses choose to provide nursing care and ignore nursing students leading to minimal supervision or no monitoring at all. In the long run there is increased number of indiscipline cases. " (Admin 3).* She further stated that *"Too many students make planning difficult in the ward. Some nurses are willing to mentor students but the number of students is overwhelmingly huge." (Admin 3).* Another participant said: *"the universities do not provide adequate support to use in the hospitals. They do not even communicate; they only send students to the ward without prior communication." (Admin 5).*

Theme 3: Resource-related challenges

One participant who said:

"resources in the ward are inadequate for students to get good learning experience. For example, in pediatric ward with only one nebulizer and ten nursing students who required an experience on nebulization of children. This may not be possible at a time unless they take turns with few chances of doing that." (Admin 3). Failure to offer resources as required creates learning chances rather than a good training strategy for effective training.

The majority of participants who said:

"…. The clinical sites are not adequate in number and also too small in size to accommodate all the nursing students sent by the university." (Admin 1, Admin 4, Admin 5, Admin 6). Another administrator said*, "we lack approved clinical sites for students' placement." (Admin 7)*

The majority of the participants who said:

"… the institutional budget allocated for clinical training of nursing students not adequate." (Admin 4, Admin 6, Admin 7). There is no budgetary allocation for clinical training in the hospital. We depend on mentorship and facilitation fee paid by the universities to ensure learning takes place effectively (Admin 1, Admin 3, Admin 5).

One of the participants said:

"… The approval of the budget takes so long to an extent where the hospitals threaten to send away students from these clinical areas." (Admin 2)

Theme 4: Other challenges

The majority of participants who said:

"Clients are important for effective clinical learning. However, in some situations nursing students are not able to get the required number of clients for their learning objectives (Admin 1, 2, 3, 4, 5, 6, 7).

Transportation of students to the clinical learning environment is very crucial. It is not only providing the bus to transport but it is also important that the students arrive punctually.

"… the university does not provide transport for students going to the ward every day. The nursing students look for their own means of transport and many a times they report to the ward late and too tired to meet the expected objectives." (Admin 2).

4.7 Strategies used to improve clinical learning environment for undergraduate nursing students

4.7.1 Strategies identified by nursing students to improve clinical learning environment for undergraduate nursing students

According to the findings, approximately 36 (20.8%) of the undergraduate nursing students said that a library with latest reference material, ICT and internet availability should be availed in the clinical learning environment to allow the make references on the patients' conditions where they are not sure of. The majority of them indicated that they should be provided with transport to and from their clinical placements sites and when they are placed in health facilities far away from the university, they should be provided with accommodation to ensure their welfare when rotating the clinical placement sites. The responds also indicated that the mentors and clinical instructors should be available more to supervise them during their clinical placements (n = 24; 13.9%). Approximately 16 (9.24%) of the respondents said that the universities and health facility management should liaise and take care of their welfare to reduce anxiety among undergraduate nursing students during their clinical learning.

4.7.2 Strategies identified by nurse preceptors to improve clinical learning environment

Nurse preceptors also gave input to how to improve clinical learning environment for undergraduate nursing students by saying that clinical instructor should be proactive and avail themselves in the clinical learning environment to help them supervise students (n = 71; 50.7%). Other than this, approximately 36 (25.7%) of the nurse preceptors said that adequate supplies and resources for learning as well as appointment of specific nurse

models should be done to mentor students adequately. This would mean there are individuals whose work specifically is to ensure that nursing students learn effectively in the clinical learning environment. Approximately 33 (23.6%) of the respondents said that a learning resource centre with reference books and internet including conference rooms should be provided. This enables the mentors and clinical instructors to hold pre and post conferences with students while in the clinical sites. Approximately 25 (17.8%) said that increasing the number of nursing staff in the clinical learning environment would enable the staff to care for patients and more so closely monitor the students. Approximately 20 (14.3%) of the nurse preceptors were concerned with the current space available in the clinical learning environment hence mentioning the expansion of wards and other clinical learning sites to accommodate the number of nursing students comfortably.

4.7.3 Strategies identified by nurse educators to improve clinical learning environment

Approximately 12 (52.2%) of the nurse educators said that provision of adequate supplies and resources for learning that includes a creation of learning resource centre with reference books and computers as well as internet connectivity should be provided to help the students put theory into practice effective and refer to patient care when in doubt. Approximately 6 (26.1%) of the respondents said that the number of trained mentors and clinical instructors should be increased to monitor and supervise nursing students very closely as well as increasing the number of staff in the wards to prevent using students to cover shortages in the clinical learning environment. Moreover, approximately 2 (8.7%) of the respondents said that students should oriented upon arrival to the ward to reduce confusion and maladjustment to the clinical learning environment. They also said that

nursing students should assigned patients upon reporting to clinical learning environment as per objectives and assisted to connect theory to practice using those patients.

4.7.4 Strategies identified by administrators to improve clinical learning environment

The researcher sought to determine the strategies to improve the clinical learning environment for undergraduate nursing students. After analysis of the interviews with the participants regarding the strategies to improve the clinical learning environment for undergraduate nursing students, three main themes emerged. The findings obtained from the study demonstrated that staff involvement, resource availability and administrative participation the strategies to improve the clinical learning environment for undergraduate nursing students.

Theme 1: Staff Involvement in Clinical Learning Environment

Faculty in health professions education are expected to be explicit and detailed in their instruction, addressing measurable learning outcomes that are directly related to professional standards. The administrators in the hospitals and universities are supposed to ensure smooth running of the activities going on in the clinical learning environment. For effective clinical learning for nursing students the number of nurses working in the ward should be adequate to allow nurse preceptors to spend time with the students. An adequate number of nurse educators ensure adequate monitoring, supervision and evaluation of nursing students in the clinical learning environment. All participants gave strategies related to staff active involvement as follows:

Two participants said: *"... the hospital management should ensure that there are enough mentors to mentor nursing students in the wards." (Admin 6, Admin 7).* Apart from ensuring adequate number of mentors another participant said*: "mentors should be*

assigned to students as soon as they report to the wards." (Admin 2). And another one said: *"these staff should preferably have different specializations." (Admin 1).*

Them 2: Resource Availability in Clinical Learning Environment

Because nursing students work with people, it is crucial to provide them with the greatest possible clinical training. Availability of supplies and equipment for patient care is very necessary. The majority of participants who said:

"the hospital management should ensure that resources are available for students to use in their clinical experience." (Admin 1, Admin 4). "Space should be created to house learning resource centre in the hospital." (Admin 1, Admin 5). "the universities should provide support to the hospitals in term of resources, for example building of a ward or even the learning resource centre." (Admin 3).

Theme 3: Administrative Responsibilities in Clinical Learning Environment

One participant said: *"there should be a minimum of three clinical preceptors or mentors in the hospital to be able to hand the number of students who are in the clinical areas to provide constant mentorship." (Admin 4).* While another one said: *"... proper orientation of students should be done to minimize confusion in the clinical areas. Proper means of communication between students and supervisors would minimize frustrations and misunderstandings that can hinder smooth learning in the clinical areas." (Admin 2). Admin 1 added by saying that: "This may also help to improve discipline of the students due to close monitoring." (Admin 1).*

Majority of the participants in relation to this said:

"the universities should ensure that clinical instructors come to the hospital to supervise students, collaborating with nurse preceptors to ensure students receive adequate instruction." (Admin 1, Admin 3, Admin 4, Admin 5, Admin 7).

Majority of participants said:

"... regular meetings with stakeholders should be organized and held by the hospital and the hospitals, encouraging more interaction between the hospitals and the universities." (Admin 1, Admin 2, Admin 3, Admin 5).

CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of the study was to analyze the situation in the clinical learning environment for undergraduate nursing students at selected health facilities in Central and Eastern Kenya. The discussion of the findings is done as per the objectives of the study. The conclusion reached from analysis of the data is presented and the recommendations are offered.

5.2 Discussion of the Findings

The findings of this situational analysis reveal crucial information on the roles, opportunities, challenges and strategies that promote clinical learning in the clinical learning environment for undergraduate nursing students. The findings provide valuable insights into the current state of clinical learning environment and highlight areas of improvement to achieve expected learning outcomes.

5.2.1 Roles of stakeholders in clinical learning environment

This mixed-methods study explored the clinical learning environment in selected hospitals in Central and Eastern regions of Kenya, shading light on how roles of stakeholders, available opportunities, challenges encountered, and strategies that can improve clinical education interact. Clinical nursing education is a key component of professional nursing student training, allowing students to apply theoretical knowledge in real-world patient care situations. It is critical in developing nursing students who are knowledgeable, confident, and safe enough to provide high-quality healthcare services once they graduate.

The findings highlight the importance of stakeholders in determining nursing students' clinical educational outcomes. The findings revealed that stakeholders like as students, nurse preceptors, nurse educators, and administrators have an important role in determining the quality of the clinical learning environment. In line with recent research by Tadesse et al. (2024) and Pittsburg (2023), successful stakeholder engagement was linked to increased student confidence, skill acquisition, and professional socialization.

However, the study also identified deficiencies in role definition and coordination, which resulted in inconsistent monitoring and fragmented learning experiences. This highlights the necessity for established communication channels and clearly defined roles to ensure that all stakeholders contribute optimally to student development.

The stakeholders in the study were nursing students, nurse preceptors, nurse educators and administrators of selected hospitals and universities who are directly involved with student clinical learning. Stakeholders play a crucial role in the clinical learning environment. When the roles of each stakeholder are clear, collaboration and teamwork will produce effective results. In the current dynamic and complex healthcare landscape, effective inter-professional education focuses on building essential skills like clear role understanding, effective communication, teamwork and patient centered care. These competencies lay the groundwork for a collaborative workforce equipped to handle the evolving demands and challenges of modern healthcare as stated by World Health Organization (WHO) (2020).

5.2.1.1 Role of Nursing Students in the Clinical Learning Environment

The majority of nursing students demonstrated a high awareness of their roles in the clinical learning environment. They pointed out completion of assignments, provision of patient care, and application of theory to practice as the key roles. This was a notable finding where

there is a shift in student positioning from passive observers to active learners in the wards. The findings in this study are in line with University of Pittsburgh (2023), which stated that nursing students are expected to actively participate in safe provision of nursing care to the patients learn in variable and constantly changing situations. Bradshaw et al (2021) supported by stating that nursing students should provide care to the patients by carrying out procedures like assisting with baths, feeding them and making their beds to ensure that the patient is comfortable. Quite a number of training institutions and regulatory bodies outline the expectations for nursing students in the students' clinical logbooks and training files as per the Nursing Council of Kenya (NCK, 2022).

This shows that nursing students are aware of those roles that would enhance adequate nursing experience leading to a competent nurse after finishing their training.

5.2.1.2 Role of Nurse Preceptors in the Clinical Learning Environment for Undergraduate Nursing Students

According to the findings of this study, the majority of the respondents mentioned welcoming and orienting nursing students as they report to the placement, induction of new students and supervision. It is very important that during the first meeting between the preceptor and the nursing students, goals and expectations for the experience should be discussed and worked out into a mutually agreed-upon plan with a time range for completion as stated by Woo et al., 2020. This enables the students to become acclimated to working in and adjusting to the clinical learning environment hence reducing anxiety and confusion.

5.2.1.3 Role of Nurse Educator in the Clinical Learning Environment

The study findings indicated that the majority of nurse educators were aware of their roles including solving any issues arising in the clinical learning environment, assessing students at the end of the placement, and teaching them in the clinical learning environment. These findings are supported by Bradshaw et al., (2021) who stated that the nurse educators oversee the clinical instruction of students using their practical experience of teaching. They translate didactic content into applications for healthcare aiding nursing students in putting theory into practice as well. They plan and select the clinical learning activities. The study finds on assessment of nursing students and in line with Nursing Council of Kenya, which states that students' clinical competencies are often assessed at the conclusion of each semester in the clinical learning setting, utilizing standardized evaluation instruments. Undergraduate nursing students should be assessed by two people, one from the training institution and the other from the health facility at the end of each semester in the clinical learning environment using standardized evaluation tool. This is to minimize biases and unfairness (NCK, 2022).

5.2.1.4 Role of Administrators in the Clinical Learning Environment for undergraduate Nursing Students

The researcher sought to determine the role of administrators in the clinical training of undergraduate nursing students in the clinical learning environment. The majority of the administrators indicated that they are responsible for assigning the people who will oversee students' activities in the clinical learning environment. When clinical learning experience is done away from the university and this needs transportation to and from the hospitals, they organize for the transportation as required. One participant said:

"I plan and organize transport for university staff who are going to the clinical placement to supervise and assess students." (Admin 2).

According to a study done by Davenport et al. (2024), practice education facilitators, practice educators and universities should make use of reasonable adjustment plans to include placement travel and accommodation needs.

One participant said:

"I call for meetings with the nurse educators to discuss the progression of student learning in the clinical placement." (Admin 2). This was mentioned by Mothiba, Bopape and Mbombi (2020) who argue that nursing education institutions should create and conduct clinical learning activities that would allow student nurses to obtain the necessary professional skills and clinical competence. Bradshaw et al., (2021), further stated that organizations that offer clinical placement to students should have preceptors who are familiar with their job, course objectives, clinical teaching methodologies, conflict resolution strategies and student assessment and evaluation protocols. Such assistance can be provided on a regular basis during the preceptorship through direct discussion as well as through text messages, phone calls or e-mail when particular issues or inquiries arise.

Theme 3: Financial responsibilities

Funds are needed to facilitate achievement of learning objectives in the clinical learning environment. According to Bayram et al. (2022), financial competencies help the nursing profession to grow by increasing its chances to participate and implement decisions geared towards protection of the quality of care effectively. One participant said:

"I verify the clinical budget done by the clinical coordinators and forward to the university management for approval."(Admin 2). According to Bradshaw et al. (2021), nursing

training administrators need to organize for funds to fund clinical activities, which include transportation of students and clinical educators to the clinical sites.

Theme 4: Administrative responsibilities

Two participants said:

"I call for meeting with stakeholders to plan the distribution and mentorship of students prior to their placement. In this stakeholders' meeting we discuss the successes and failures of the previous student placements" (Admin 1, Admin 5). This is supported by the findings of Bradshaw et al. (2021) which mentioned that a robust partnership between academic faculty and service providers is vital to ensure successful clinical experience for nursing students.

5.2.2 Opportunities available in the Clinical Learning Environment

5.2.2.1 Opportunities Identified by Stakeholders in the Clinical Learning Environment

Nursing is a practice-based profession that necessitates extensive clinical training and positive practice experience to prepare nursing students for their professional duties. The finds obtained from the student showed opportunities from the stakeholders' point of view. The summary mean Likert score for nursing students, nurse preceptors and nurse educators for the opportunities in the clinical learning environment indicators were respectively, indicating that the respondents' opinion oscillated between neutral and agree.

Opportunities identified from respective categories of stakeholders in clinical learning environment at $p = 0.05$ showed that there was no significant difference between the indicator responses. This is reinforced by Bsharat et al. (2025), who found that educational atmosphere and supervisor connections were the most significant predictors of learning

experiences. The availability of several departments such as pediatrics, maternity, medical/surgical, and community health broadens students' clinical perspectives and helps them choose areas of interest for future specialization (Hammad et al., 2024). This diversity also guarantees that students graduate with a more competent and comprehensive skill set. Majority of the stakeholders agreed that the preceptor is aware of the relevant learning opportunities available. This was supported by Motsanaka et al. (2022) who stated that the clinical learning environment should be planned in a way that nursing students get a conducive and dynamic clinical practice environment that promotes and develops good interactions with learning experiences.

5.2.2.2 Opportunities Identified by Administrators in the Clinical Learning Environment

The researcher sought to determine the opportunities that administrators found in the clinical learning environment for undergraduate nursing students. The participants consisted of seven administrators: three from the health facilities and four from universities. The findings obtained from the study demonstrates that approval of clinical learning environment, availability of adequate experiences in the clinical learning environment and adequate preparation of students, preceptors and clinical instructors are the opportunities available in the clinical learning environments for undergraduate nursing students.

Theme 1: Approval of clinical learning environment

Clinical learning environment is very crucial in preparation of competent nurses. Health facilities and training institution must be inspected and accredited by the Nursing Council of Kenya (NCK). It is the mandate of the NCK to establish and improve the standards of

nursing and midwifery and of health care through regulation of nurses and midwives training syllabi and institutions under the Nurses Act, Cap 257 of the Laws of Kenya. (Nurses Act Cap 257 (No. 5), 2019). The majority of the administrators boasted of the fact that the health facilities and universities have been approved and accredited by the NCK to train undergraduate nursing students, as one participant said:

"The clinical sites for training of my nursing students are enough."

And two others said:

"It is a good thing that Nursing Council of Kenya has approved my hospital for training of BSc nursing students." (Admin 1, Admin 3).

The also reported that training policies are in place to reinforce the approval and accreditation for training. Training policies are crucial because they ensure students receive adequate preparation, develop essential skills and navigate the complexities of healthcare settings, ultimately leading to improved patient care and student outcomes. Majority of respondents said:

"... there are policies and guidelines for clinical learning of undergraduate nursing students in the hospitals." (Admin 4, Admin 5, Admin 6, Admin 7).

Theme 2: Adequacy of experiences in the clinical environment

For the nursing students to get meaningful learning experiences, the clinical learning environment must be adequate. Participants further described that there are adequate experiences in the clinical environment. They said:

"…the goals for clinical training are in line with the Nursing Council of Kenya and that means we have no problem with the regulatory body as far as clinical learning is concerned." (Admin 2, Admin 3, Admin 4, Admin 6, Admin 7).

To foster adequate learning experiences in a clinical learning environment, prioritize a supportive, stimulating and diverse environment that encourages interprofessional collaboration, critical thinking and problem-solving skills, while also addressing student expectations and experiences. Universities and teaching hospitals are only allowed to train undergraduate nursing student after they have been accredited by the Nursing Council of Kenya. Upon receiving application for accreditation, NCK appoints a team who will visit the site, and collect information about general academic, administrative and social affairs of the institution and any relevant investigation (Nurses and Midwives Act, 2023). They further said:

"….the clinical experience in the hospital is appropriate enabling the nursing students to get adequate experiences." (Admin 1, Admin 4, Admin 6, Admin 7)

Theme 3: Adequate preparation of students, preceptors and clinical instructors

According to Mothiba, Bopape and Mbombi (2020), nursing training institutions should create and conduct clinical learning activities that would allow student nurse to obtain the necessary professional skills and clinical competence. Nursing students will be confident in their ability to give and accomplish great healthcare for patients (Al-Harahsheh et al., 2020). Implementing clinical learning objectives and activities will help increase the quality of clinical education for nursing students, preparing them for 21st Century practice (Modarres et al., 2021). This supports one participant who said:

"Some universities give us adequate support towards the clinical training." (Admin 3)

Three administrators said:

"... the availability of clinical log books, Nursing Council of Kenya manuals, MOUs, assessment tools and policies on conduct enable students to learn appropriately." (Admin 1, Admin 2, Admin 5)

5.2.3 Challenges Encountered in the Clinical Learning Environment

5.2.3.1 Challenges Identified by Stakeholders in the Clinical Learning Environment

The study explored the challenges experienced encountered by stakeholders in the clinical learning environment for nursing students. Statements were given denoting challenges encountered in the clinical learning environment where stakeholders were to respond and indicate whether they agreed to, not sure or disagreed to. While clinical learning experiences are crucial to nursing education, they are complex and difficult to navigate due to their unpredictability.

The study findings on the challenges encounter by stakeholders included lack of learning resource centre, ICT and internet connectivity, no close supervision for nursing students and lack of transport and accommodation for nursing students who have to undertake their clinical placement away from the university.

The mean Likert score indicators indicated that the respondents' opinion oscillated between disagree and neutral. Analysis of variance indicated that there was not significant difference between the indicator responses from the nursing students, nurse preceptors, and nurse educators on the challenges identified from the respective categories in clinical learning environment at $p=0.05$. The findings mirrored a situational examination of the clinical learning environment for nursing students in Africa that regularly revealed a severely damaged training landscape. Research in nations such as Ghana, Ethiopia, and

South Africa faces widespread problems, including as acute resource shortages, overcrowded wards, inadequate preceptorship models, and persisting gaps between classroom theory and clinical practice (Ayalew, 2025). A study in Uganda discovered 73.4% incidence of clinical problems, indicating that teacher shortages and a lack of clinical resources are widespread issues in East African nursing programs (Quayson et al., 2024).

These impediments can impede skill development, limit learning satisfaction, and increase student stress. The continuation of these issues indicates a systemic issue within clinical education frameworks, such as poor integration of academic courses and clinical site operations.

5.2.3.2 Challenges Identified by Administrators in the Clinical Learning Environment for Undergraduate Nursing Students

The researcher sought to determine the challenges encountered by administrators in the clinical learning environment for undergraduate nursing students. After analysis of the interviews with the participants regarding the challenges encountered in the clinical learning environment for undergraduate nursing students, four main themes emerged. The findings obtained from the study demonstrated that staff related challenges, student related challenges, resource related and other challenges like collaboration between stakeholders and transportation of students from the universities to the hospitals for clinical experience were the challenges in the clinical learning environment for undergraduate nursing students.

Theme 1: Staff related challenges

Administrators face a challenge in recruiting and keeping talented workers. Heavy patient loads leave hospital nurses with little time to supervise trainees, causing administrators to deal with substantial staff turnover (Panda et al, 2021).

Nursing instructors and learners require adequate, appropriate, and relevant physical facilities, such as classrooms, offices, libraries, skills labs, furniture, instructional materials, and clinical facilities such as wards, clinics, and rural health centers. Rural health facilities include NCK-approved teaching hospitals, rural health training units, and health centers (Tadesse et al., 2024).

This echoed what majority of participants said. Two participants said:

"… we do not have enough clinical instructors to help students in the hospital." (Admin 1, Admin 4). Another two participants said: *"Clinical instructors do not consistently come to supervise students in the wards." (Admin 3, Admin 5).* Another administrator said: *"we do not have enough staff to appoint some to be mentors to students. And even if the staffing is adequate most of the staff nurses are registered community health nurses yet Nursing Council of Kenya requires that a mentor for undergraduate nursing students should have a minimum of bachelor's degree or had a higher diploma in an area of specialization" (Admin 1).* All these responses indicates that student supervision is at jeopardy and may compromise student clinical performance and patient safety. Effective supervision is critical to ensuring patient safety, student learning and professional development in clinical settings. Proper oversight helps students apply theoretical knowledge, develop clinical skills and adopt professional behavior while minimizing risks.

One participant said:

"... the clinical supervisors are also classroom teacher, so time is not enough to be with nursing students in the hospital because they have to hurry back to the university to teach." (Admin 2). Bradshaw et al. (2021) mentioned that a negative experience with a mentor or preceptor who is overwhelmed, unpleasant or disengaged might impede the clinical learning process. Limited time for clinical instruction is also a challenge because there may be insufficient time for teaching and feedback in busy situations.

One of the participants said:

"Negative attitude nurses have towards nursing students has made students fear seeking guidance from nurses in the hospital." (Admin 2). This is supported by Amoo et al. (2022) who stated that poor staff attitude is one of the challenges encountered in the clinical learning environment.

Theme 2: Student-related challenges

A positive attitude in nursing students during clinical learning experience significantly impact their learning and career development. The right attitude fosters competence, confidence and ethical practice, while a negative attitude can hinder progress and even compromise patient safety. One of the participants said:

"Some students and equally nurses have negative attitude toward each other or toward the clinical learning environment and activities going on there." (Admin 1). This becomes a challenge because it demands the nurse administrators' effort to deal with disciplinary issues related to negative attitude in students. The university administrators put a lot of effort to mentor and counsel the students to help them change their attitude towards clinical nursing. Amoo et al. (2022) in their study identified a negative student attitude as one of the difficulties in the clinical learning environment.

Another administrator said this:

"… the number of nursing students using a clinical site is too large leading to congestion in the clinical areas." (Admin 2, Admin 6). Another administrator said: *"mentorship is not possible because students are too many compared to the number of staff available in the ward. In that case nurses choose to provide nursing care and ignore nursing students leading to minimal supervision or no monitoring at all. In the long run there is increased number of indiscipline cases. " (Admin 3).* She further stated that *"Too many students make planning difficult in the ward. Some nurses are willing to mentor students but the number of students is overwhelmingly huge." (Admin 3)*. Another participant said: *"the universities do not provide adequate support to use in the hospitals. They do not even communicate; they only send students to the ward without prior communication." (Admin 5).*

Motsaanaka, Makhene & Ally (2020) mentioned that there is overcrowding in the public academic hospitals as a result of the placement of students from various nursing training institutions as well as students from other health disciplines. This is supported by Mbakaya et al. (2020) who stated that overcrowding cause inadequate clinical learning objective achievement by nursing students, resulting in an inability to integrate theory into practice, poor development of critical skills and clinical competencies and a lack of professional growth.

Theme 3: Resource-related challenges

One participant who said:

"resources in the ward are inadequate for students to get good learning experience. For example, in pediatric ward with only one nebulizer and ten nursing students who required an experience on nebulization of children. This may not be possible at a time

unless they take turns with few chances of doing that." (Admin 3). The clinical learning environment is a multifaceted social phenomenon that influences student learning outcomes in clinical settings. The quality of practice placement is critical to the development of competent and confident professional nurses. Managing competition among several nursing schools for the same authorized clinical locations is a challenge for administrators. This causes severe overcrowding in wards, jeopardizing student safety and reducing hands-on learning opportunities.

Even in countries where nursing is a well-developed profession, there are few efficient clinical settings. Poor clinical conditions and strained resources prevent students from improving their nursing skills (Panda et al., 2021).

The clinical site for clinical learning should have an appropriated physical environment to promote competency development, including teaching and learning opportunities, space and equipment, and competent people. This supports majority of participants who said: *"…. The clinical sites are not adequate in number and also too small in size to accommodate all the nursing students sent by the university." (Admin 1, Admin 4, Admin 5, Admin 6).* Another administrator said*, "we lack approved clinical sites for students' placement." (Admin 7)*

According to a survey conducted by Tedasse et al. (2024), nearly all respondents agreed that there is a lack of committed effort or attention from government organizations in providing adequate funding to purchase instructional equipment in universities in accordance with curriculum requirements. They also noted an uneven distribution of instructional materials across regions and a lack of priority from higher authorities in purchasing medical equipment required for demonstrations.

This in turn, causes challenges in student learning. This supported majority of the participants who said:

"... the institutional budget allocated for clinical training of nursing students not adequate." (Admin 4, Admin 6, Admin 7). There is no budgetary allocation for clinical training in the hospital. We depend on mentorship and facilitation fee paid by the universities to ensure learning takes place effectively (Admin 1, Admin 3, Admin 5). One of the participants said:

"... The approval of the budget takes so long to an extent where the hospitals threaten to send away students from these clinical areas." (Admin 2)

Theme 4: Other challenges

Inadequate number of patients can be challenging for students who anticipate to have a large number of clients for their experience. Many nursing students are apprehensive about patient reactions. The reaction of patients and their willingness to collaborate while receiving care from nursing students influence student's level of comfort. This supports majority of participants who said:

"Clients are important for effective clinical learning. However, in some situations nursing students are not able to get the required number of clients for their learning objectives (Admin 1, 2, 3, 4, 5, 6, 7). The patient's brief hospital stays and the heightened emphasis on health promotion make this difficult.

Transportation of students to the clinical learning environment is very crucial. It is not only providing the bus to transport but it is also important that the students arrive punctually.

"… the university does not provide transport for students going to the ward every day. The nursing students look for their own means of transport and many a times they report to the ward late and too tired to meet the expected objectives." (Admin 2).

Financing student transportation, clinical evaluation logistics, and personal protective equipment while rigorously adhering to Nursing Council of Kenya mandates creates budgetary and regulatory difficulties (Afaya et al., 2026).

5.2.4 Strategies to Improve Clinical Learning Environment

Participants advocated mentorship programs, increased academic-clinical collaboration, and regular stakeholder review sessions. These proposals are compatible with clinical education best-practice models that promote formal mentorship, constant feedback, and shared governance between educational institutions and healthcare facilities. Implementing these tactics could address both highlighted difficulties and underutilized potential, resulting in a more equal and effective learning environment.

Overall, the findings highlight the importance of stakeholder interaction, opportunity utilization, and obstacle reduction in designing the learning environment. Addressing these elements holistically may improve nursing students' preparedness for professional practice, patient care outcomes, and the link between theory and practice in nursing education.

5.2.4.1 Strategies Identified by Stakeholders to Improve Clinical Learning Environment for Undergraduate Nursing Students

The majority of stakeholders indicated that the universities in collaboration with hospitals should arrange for the transportation and accommodation of students in the clinical areas especially if they are far apart. For those hospitals closer to the hospital the universities should provide buses to transport students daily to the clinical areas and on time. This

enables nursing students to report to the clinical learning environment on time when they are well rested and with clear minds. When they get assistance from the hospitals and universities to get accommodation, they are assured of secure placed to live in. Algunmeeyn et al. (2025) recognized transportation and accommodation issues as well. The participants claimed that universities do not provide transportation to clinical learning environments, nor do they care to provide housing for nursing students who must remain away from campus. This lowers training opportunities, which has a detrimental impact.

A study done by Chiamaka et al. (2021) revealed that there were instances where students arrived late for their scheduled shifts. This supported the fact that they were left alone to find accommodation of which most of the time they found in places which are not safe. Other times they find accommodation far away from the health facility making it difficult for them to commute to and from their clinical learning environment.

Majority of the stakeholders also mentioned the need for a learning resource centre with reference books and internet services to enable students, preceptors and educators to make references in relation to patient care. Provision of adequate supplies and resources should be provided to help the students put theory into practice effectively and refer to patient care when in doubt. Conference rooms should be part of the learning resource centre to enable mentors and clinical instructors to hold pre- and post-conferences with students while in the clinical learning environment.

Majority of the stakeholders agreed that nurse preceptors and nurse educators should be proactive and avail themselves in the clinical learning environment to help supervise students. This was supported by Bradshaw et al. (2021) who stated that faculty availability and interest are crucial in creating a pleasant clinical learning environment. Stakeholders

also mentioned liaison between universities and health facilities as a strategy that can be used to improve clinical learning environment. This is supported by Adam et al. (2021) who said that to improve the quality of clinical learning environments, higher education institutions must give adequate support to the practicing nurses who mentor these nursing students. Improved communication strategies between faculty and students are required to ensure that students feel supported despite the challenges of distance. This will take care of student welfare hence reducing anxiety during their clinical learning.

Other than this, the majority of stakeholders said that adequate supplies and resources for learning as well as appointment of specific nurse models should be done to mentor students adequately. This would mean there are individuals whose work specifically is to ensure that nursing students learn effectively in the clinical learning environment. This is supported by Jacob et al. (2023) who stated that nursing programs have been challenged to hire and retain qualified nursing faculty because shortage directly impacts the clinical learning environment. Stakeholders said that increasing the number of nursing staff in the clinical learning environment would enable the staff to care for patients and more so closely monitor the students.

Majority of stakeholders said that wards and rooms for special clinics where students are expected to rotate should be expanded or new ones be constructed to comfortably accommodate more clients as well as the nursing students who participate in the clinical experience. Ayalew (2025) identified congestion as one of the challenges to clinical learning and proposed that hospitals and training schools collaborate to alleviate overcrowding.

Majority of the stakeholders said that the number of trained nurse preceptors and nurse educators should be increased to monitor and supervise nursing students very closely as well as increasing the number of staff in the wards to prevent using students to cover shortages in the clinical learning environment. Bradshaw et al. (2021) urged that advisors must seek to expand their understanding and professional behaviour in response to student needs in clinical learning environment.

Nurse preceptors and nurse educators should be mindful of students' increased anxiety level in the clinical learning environment. Some respondents said that students should be oriented to the clinical learning environment and objectives of the rotation upon arrival to the ward to reduce confusion and maladjustment to the clinical learning environment. This is supported by Bradshaw et al. (2021) who said during the first meeting with the students, objectives and expectations for the experience need to be openly discussed and modified as necessary, leading to a shared agreement on a plan that includes specific time frames for completion. Adam et al. (2021) further said that a good learning environment is formed by student orientation to the workplace to make the atmosphere supportive, respectful and encouraging in order to help the grasp clinical practical skills.

5.2.4.2 Strategies Identified by Administrators in the Clinical Learning Environment for Undergraduate Nursing Students

The researcher sought to determine the strategies to improve the clinical learning environment for undergraduate nursing students. After analysis of the interviews with the participants regarding the strategies to improve the clinical learning environment for undergraduate nursing students, three main themes emerged. The findings obtained from the study demonstrated that staff involvement, resource availability and administrative

participation the strategies to improve the clinical learning environment for undergraduate nursing students.

Theme 1: Staff Involvement in Clinical Learning Environment

Nurse preceptors and nurse educators are expected to be explicit and detailed in their instruction, addressing measurable learning outcomes that are directly related to professional standards. The administrators in the hospitals and universities are supposed to ensure smooth running of the activities going on in the clinical learning environment. For effective clinical learning for nursing students the number of nurses working in the ward should be adequate to allow nurse preceptors to spend time with the students. An adequate number of nurse educators ensure adequate monitoring, supervision and evaluation of nursing students in the clinical learning environment. All participants gave strategies related to staff active involvement as follows:

Two participants said: *"... the hospital management should ensure that there are enough mentors to mentor nursing students in the wards." (Admin 6, Admin 7).* Apart from ensuring adequate number of mentors another participant said*: "mentors should be assigned to students as soon as they report to the wards." (Admin 2).* And another one said: *"these staff should preferably have different specializations." (Admin 1).* This is supported by Bradshaw et al. (2021) who stated that practical learning in health-related education is the most effective when there is constant engagement between students and a clinical instructor regularly who then guides students to continue theoretical knowledge with actual practice. This is in line with a study done by Ziba et al. (2022) which revealed that frequent contact between students and supervisors lead to successful supervision that is associated with better rating of clinical experience among undergraduate nursing students.

Them 2: Resource Availability in Clinical Learning Environment

Because nursing students work with people, it is crucial to provide them with the greatest possible clinical training. The quality of the clinical learning environment is crucial to the development of competent and confident professional nurses as pointed by Bradshaw et al. (2021). This is in line with the majority of participants who said:

"the hospital management should ensure that resources are available for students to use in their clinical experience." (Admin 1, Admin 4). "Space should be created to house learning resource centre in the hospital." (Admin 1, Admin 5). "the universities should provide support to the hospitals in term of resources, for example building of a ward or even the learning resource centre." (Admin 3).

Theme 3: Administrative Responsibilities in Clinical Learning Environment

One participant said: *"there should be a minimum of three clinical preceptors or mentors in the hospital to be able to hand the number of students who are in the clinical areas to provide constant mentorship." (Admin 4).* While another one said: *"... proper orientation of students should be done to minimize confusion in the clinical areas. Proper means of communication between students and supervisors would minimize frustrations and misunderstandings that can hinder smooth learning in the clinical areas." (Admin 2). Admin 1 added by saying that: "This may also help to improve discipline of the students due to close monitoring." (Admin 1).* Bradshaw et al (2021) mentioned that when students in the clinical learning environment work closely with nurse preceptors and nurse educators, they gain a genuine understanding of how professionals hand team responsibilities and difficult situations.

According to Zhang et al. (2022), structured mentorship programs are frequently suggested for providing students with regular assistance and role modeling. This is to provide nurse preceptors and nurse educators with formal teaching and mentoring skills through ongoing professional development.

Nursing practice competency necessitates clinical judgement, critical thinking, decision making, motor skills and problem-solving where preceptorship and guidance is needed. Clinical preceptorship is a collaborative effort between students, nurse preceptors and nurse educators to help students build or strengthen competencies and safe practice (Bradshaw et al., 2021). Majority of the participants in relation to this said:

"the universities should ensure that clinical instructors come to the hospital to supervise students, collaborating with nurse preceptors to ensure students receive adequate instruction." (Admin 1, Admin 3, Admin 4, Admin 5, Admin 7).

Majority of participants said:

"… regular meetings with stakeholders should be organized and held by the hospital and the hospitals, encouraging more interaction between the hospitals and the universities." (Admin 1, Admin 2, Admin 3, Admin 5). This is supported by SoFoush et al. (2021) who stated that clinical teaching innovations show potential in facilitating dialogue between academic and practice about clinical requirement, expectations and new graduate preparation. The quality of clinical learning environment and clinical learning experience for undergraduate nursing students, requires the universities to support hospitals where students are placed. The support provided range from finances to students' instruction and discipline.

5.3 Conclusion

The study's goal was to assess the clinical learning environment for undergraduate nursing students at several health institutions in Central and Eastern Kenya. This was done to provide useful insight into the existing situation, which can be used to make educated decisions that will drive success and fulfill the strategic goals of clinical training. The study looked at the clinical learning environment through the lens of stakeholder roles, available opportunities, current difficulties, and realistic improvement options.

The clinical learning environment is shaped by a complex interaction of stakeholders, opportunities, obstacles, and solutions for improving clinical education. The findings demonstrate that stakeholders like as students, nurse preceptors, nurse educators, and administrators have an important role in moulding students' learning experiences. Understanding their roles is critical for improving nursing education and, eventually, increasing the quality of healthcare services provided to patients and nursing graduates upon completion of the training.

A multidisciplinary and collaborative effort is required to overcome the difficulties.

Opportunities such as adequate preparation, an adequate number of patients to learn from, welcoming staff, and effective communication were evident, but these were frequently hampered by challenges such as a lack of a learning resource centre, a lack of ICT connectivity and accessibility, a lack of close supervision, and a lack of accommodation for students who were not attending university.

Strategies found, such as structured mentorship programs, improved communication between academic and clinical settings, and targeted resource allocation, provide a road to a more supportive and successful learning environment. As a result, improving these areas

will not only improve student competence but will also help to improve the overall quality of nursing education and service.

5.4 Recommendations

1. Stakeholders are aware of their roles within the clinical learning environment. However, this study recommends that Deans of Nursing Schools and Chairmen of Departments in universities, as well as Nursing Services Managers and nursing officers in charge of wards, plan and organize regular continuing medical education and induction sessions to keep stakeholders informed about their roles in the clinical learning environment. A collaborative framework should be built to identify stakeholders' roles in supporting student learning.

2. Hospital and university administration should ensure that experiential learning possibilities are maximized by providing students with access to different clinical situations, interprofessional teamwork, and simulation-based preparatory sessions.

3. Hospital and university management should address issues such as uneven supervision, resource scarcity, and excessive task expectations through targeted interventions such as increased staff-student ratios and the provision of suitable learning materials.

4. The administration of hospitals and universities should make sure that tactics like organized mentorship programs, frequent stakeholder meetings, and integrated feedback systems are institutionalized to guarantee ongoing enhancement of the clinical learning environment. All of these actions will improve nursing education and help produce graduates who are capable, self-assured, and caring.

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APPENDICES

APPENDIX I: Research Budget

S/No.	Item	Details	Cost (Kshs)
1.	**Working Tools**		
a.	Lab Top	1HP intel Core i7	60,000
b.	Operating System Installation Kit	1@ 15,000	15,000
c.	Anti-virus	1 @ 6,000	6,000
d.	Printer	Hp Laser Jet	25,000
e.	Printer tonner	2 pieces @ 10,000	20,000
f.	LCD projector	1 @ 65,000	65,000
	Sub-Total (Ksh)		**191,000**
2.	**Proposal writing**		
a.	Printing papers	4 reams @750 Ksh	4,500
b.	Binding of proposal (for IREC)	5 copies @ 300 Ksh	1,500
c.	Binding Proposal for Presentation (School of Medicine)	8 Copies @ 300 Ksh	2,400
d.	Travel Costs – To Moi University	3 @ Ksh 4,000	12,000
e.	Subsistence – At Moi University Eldoret	6 @ ksh 5,000	30,000
f.	Courier Charges	10 @ Ksh 1000	10,000
	Sub-Total (Ksh)		**60,400**
3.	**Data Collection**		
a.	Travel Costs – KEMU to Clinical areas	3 x 24 @ Ksh 600	43,200
b.	Subsistence – Visits to Clinical areas	3 x 24 @ Ksh 5,000	360,000
c.	Travel Costs – Research & Assistants to Universities	3 x 32 @ Ksh 6,000	576,000
d.	Subsistence – Visits to Universities	3 x 32 @ Ksh 5,000	480,000
e.	Researcher Stipends	1 x 64 @ Ksh 2,000	128,000
f.	Research Assistants Stipends	2 x 64 @ Ksh 1,000	128,000
	Sub-Total (Ksh)		**1,715,200**
4.	**Data analysis & Report Writing**		
a.	Purchase of SPSS Software	1 @ Ksh 20,000	20,000
b.	Researcher Stipends	1 x 6 @ Ksh 2,000	12,000
c.	Research Assistants Stipends	2 x 6 @ Ksh 1,000	12,000
d.	Binding of Draft Research Report	10 @ Ksh 1,000	10,000
e.	Binding Final Research report	10 @ Ksh 1,000	10,000
	Sub-Total (Ksh)		**64,000**
5.	**Research Report Defense**		

a.	Travel to Moi University Eldoret	3 @ Ksh 4,000	12,000
b.	Subsistence – At Moi University	6 @ Ksh 5,000	30,000
	Sub-Total (Ksh)		**42,000**
6.	**Contingency (10%)**		**207,260**
	Grand Total (Ksh)		**2,279,860**

APPENDIX II: CONSENT FORM

Study title: Situational Analysis of Clinical Learning Environment for Undergraduate Nursing Students in Kenya.

Introduction: I am a postgraduate student at Moi University, Faculty of Health Sciences and I am doing a study entitled **Situational Analysis of Clinical Learning Environment for Undergraduate Nursing Students in Kenya**. The purpose for the study is to analyze the clinical learning situation for undergraduate nursing students. You are invited to kindly participate voluntarily in this research.

Procedure: It will involve completion of questionnaires by the nursing students and nurses and interviews for the key informants. **Benefits**: There will be no direct benefit for participants in the study. However, your contribution will be essential for accurate analysis of the situation in the clinical learning environment. This will contribute to curriculum development and review, clinical training and standard setting for quality clinical training of undergraduate nursing students.

Risks: The study will have no known risks to respondents and their institutions as it has no repercussion on your jobs, study or otherwise. **Confidentiality**: I wish to assure you that the information you will provide will be used for academic purposes and treated with total confidentiality. All questionnaires will be kept under key and lock. The names will not be linked to data or publication of result. Participation is voluntary and one is free to choose to take part or withdraw at any stage of the study without any consequences.

If you agree, kindly sign: _____ Date: _____

Researcher: Millicent J. Kapigen mkapigen@yahoo.com

THANK YOU FOR YOUR PARTICIPATION

APPENDIX III: QUESTIONNAIRE FOR STUDENTS ON SITUATIONAL ANALYSIS OF CLINICAL LEARNING ENVIRONMENT FOR UNDERGRADUATE NURSING STUDENTS AT SELECTED HEALTH FACILITIES IN CENTRAL AND EASTERN KENYA

The purpose of this study is to carry out a situational analysis of clinical learning environment for undergraduate nursing students.

You are requested to provide data that may be used for making decision on appropriate interventions to enhance the clinical learning for undergraduate nursing students.

You are NOT required to indicate your name, registration number or index number anywhere in the questionnaire.

Information that will be obtained will be held confidential and will only be used for the purpose of this study.

Provide the information required by ticking (√) in the boxes or by providing the information in the space provided.

Section I – Personal Data

1. Name of university

_____

2. Indicate your age.

(a) 18-20 ☐

(b) 21-24 ☐

(c) 25-28 ☐

(d) 29+ ☐

3. Gender.

(a) Male ☐

(b) Female ☐

4. Year of training

(a) 2nd year ☐

(b) 3rd year ☐

(c) 4th year ☐

(d) Other: specify _____

Section II – Roles in clinical learning environment

5. Outline your roles in clinical learning environment as undergraduate nursing students

_____

_____

_____

_____

_____

_____

Section III – Opportunities and challenges in clinical learning environment for undergraduate nursing students

Indicate your degree of agreement on opportunities and challenges in clinical learning environment for undergraduate nursing students

KEY: SA – Strongly agree; A – Agree; N – Not sure; D – Disagree; DS – Strongly disagree

S/No.	Item	SA	A	N	D	SD
Opportunities in clinical learning environment						
1.	All necessary paperwork for practice, assessment, logs or learning agreements were issued					
2.	There are adequate and functional equipment and supplies in the clinical learning environment					
3.	I was given orientation on the type of clinical placement and told what was expected of me					
4.	I was allocated a preceptor within the first week of clinical placement					
5.	The preceptor is aware of the relevant learning opportunities available					
6.	Clinical instructors were visible and supported preceptors within the clinical learning environment					
7.	The number of patients for learning were enough					
8.	Patients stay long enough to allow clinical learning objectives to be met					
9.	Hospitals were notified and were expecting us in the clinical learning environment					

10.	The practice placement has a favorable culture for learning					
11.	There is effective interpersonal/communication between team members and nursing students					
Challenges in the clinical learning environment						
1.	There is a learning resource centre or library within the clinical learning environment where I can use					
2.	ICT resources are available and accessible to me					
3.	Appropriate references and research materials are available for me					
4.	I got to work with my preceptor for a minimum of three shifts each week					
5.	Contact details and visiting times of the clinical instructors was clearly displayed on a noticeboard in the resource centre or practice area					
6.	Accommodation for short or long placement where students were located away from the university was offered					
7.	Other health care professionals/team members were informed of my learning needs					
8.	I was encouraged to ask questions on practices that I was not sure of or were unsafe or not research based					

Section IV – Strategies used to improve clinical learning environment for undergraduate nursing students

Highlight strategies that can be used to improve clinical learning environment for undergraduate nursing students

_____

_____

_____

_____

_____

_____

_____

Thank you for your cooperation

APPENDIX IV: QUESTIONNAIRE FOR NURSE PRECEPTORS AND NURSE EDUCATORS ON SITUATIONAL ANALYSIS OF CLINICAL LEARNING ENVIRONMENT FOR UNDERGRADUATE NURSING STUDENTS AT SELECTED HEALTH FACILITIES IN CENTRAL AND EASTERN KENYA

The purpose of this study is to carry out a situational analysis of clinical learning environment for undergraduate nursing students.

You are requested to provide data that may be used for making decision on appropriate interventions to enhance the clinical learning for undergraduate nursing students.

You are NOT required to indicate your name, or PF number anywhere in the questionnaire.

Information that will be obtained will be held confidential and will only be used for the purpose of this study.

Provide the information required by ticking (√) in the boxes or by providing the information in the space provided.

Section I – Personal Data

1. Name of university

_____

2. Gender.

(a) Male ☐

(b) Female ☐

3. What position do you hold in your place of work?

(a) Head of Department ☐

(b) Subject teacher ☐

(c) Clinical instructor ☐

(d) Other: specify _____

Section II – Roles in clinical learning environment

5. Outline your roles in clinical learning environment for undergraduate nursing students

_____

_____

_____

_____

_____

_____

Section III – Opportunities and challenges in clinical learning environment for undergraduate nursing students

Indicate your degree of agreement on opportunities and challenges in clinical learning environment for undergraduate nursing students

KEY: SA – Strongly agree; A – Agree; N – Not sure; D – Disagree; DS – Strongly disagree

S/No.	Item	SA	A	N	D	SD
Opportunities in clinical learning environment						
1.	All necessary paperwork for practice, assessment, logs or learning agreements were issued					

2.	There are adequate and functional equipment and supplies in the clinical learning environment for students to use					
3.	Students are given orientation on the type of clinical placement and told what was expected of them					
4.	Students are allocated a preceptor within the first week of clinical placement					
5.	The preceptor is aware of the relevant learning opportunities available for student clinical objectives					
6.	Clinical instructors were visible and supported preceptors within the clinical learning environment					
7.	The number of patients for learning were enough for student clinical objectives					
8.	Patients stay long enough to allow clinical learning objectives to be met					
9.	Hospitals were notified and were expecting students in the clinical learning environment					
10.	The practice placement has a favorable culture for learning					
11.	There is effective interpersonal communication between team members and nursing students					
Challenges in the clinical learning environment						

1.	I was inducted on teaching of undergraduate nursing students in the clinical learning environment					
1.	There is a learning resource centre or library within the clinical learning environment where students can use					
2.	ICT resources are available and accessible for students to use					
3.	Appropriate references and research materials are available for students to use					
4.	Students got to work with their preceptor for a minimum of three shifts each week					
5.	Contact details and visiting times of the clinical instructors was clearly displayed on a noticeboard in the resource centre or practice area					
6.	Accommodation for short or long placement where students were located away from the university was offered					
7.	Other health care professionals/team members were informed of students' learning needs					
8.	Students are encouraged to ask questions on practices that they were not sure of or were unsafe or not research based					

Section IV – Strategies used to improve clinical learning environment for undergraduate nursing students

Highlight strategies used to improve clinical learning environment for undergraduate nursing students

_____

_____

_____

_____

_____

_____

_____

Thank you for your cooperation

APPENDIX V: KEY INFORMANT INTERVIEW GUIDE FOR ADMINISTRATORS

SECTION I – Personal Data

1. Name of Institution/facility

_____

2. Position held

_____

SECTION II – Roles in the clinical learning environment for undergraduate nursing students

1. What is your role in the clinical learning environment for undergraduate nursing students?

2. Who is responsible in allocation and coordination of undergraduate nursing students in the clinical learning environment?

SECTION III- Opportunities in the clinical learning environment for undergraduate nursing students

3. What opportunities are there in clinical learning environment for undergraduate nursing students?

SECTION IV - Challenges in the clinical learning environment for undergraduate nursing students

4. What challenges do you encounter in clinical learning environment for undergraduate nursing students?

5. How many nurse preceptors/clinical instructors do you have in clinical learning environment for undergraduate nursing students?

6. Is the number adequate to ensure clinical learning for undergraduate nursing students?

7. Are there policies and guidelines in place to facilitate clinical learning for undergraduate nursing students in the clinical practice area?

SECTION V – Strategies used to improve clinical learning environment for undergraduate nursing students

8. What strategies should be used to improve clinical learning environment for undergraduate nursing students?

APPENDIX VI: IREC LETTER

INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)

MOI TEACHING AND REFERRAL HOSPITAL
P.O. BOX 3
ELDORET
Tel: 33471//2/3

MOI UNIVERSITY
COLLEGE OF HEALTH SCIENCES
P.O. BOX 4606
ELDORET
Tel: 33471/2/3

Reference: IREC/2016/93
Approval Number: 0001932

23rd January, 2019

Millicent Jemesunde Kapigen,
Moi University,
School of Medicine,
P.O. Box 4606-30100,
ELDORET-KENYA.

INSTITUTIONAL RESEARCH & ETHICS COMMITTEE
23 JAN 2019
APPROVED
P. O. Box 4606-30100 ELDORET

Dear Ms. Kapigen,

RE: CONTINUING APPROVAL

The Institutional Research and Ethics Committee has reviewed your request for continuing approval to your study titled:-

"Situational Analysis of Clinical Learning Environment for Nursing Students in Kenya".

Your proposal has been granted a Continuing Approval with effect from 23rd January, 2019. You are therefore permitted to continue with your study.

Note that this approval is for 1 year; it will thus expire on 22nd January, 2020. If it is necessary to continue with this research beyond the expiry date, a request for continuation should be made in writing to IREC Secretariat two months prior to the expiry date.

You are required to submit progress report(s) regularly as dictated by your proposal. Furthermore, you must notify the Committee of any proposal change (s) or amendment (s), serious or unexpected outcomes related to the conduct of the study, or study termination for any reason. The Committee expects to receive a final report at the end of the study.

Sincerely,

DR. S. NYABERA
CHAIRMAN
INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE

cc: CEO - MTRH
Principal - CHS
Dean - SOM
Dean - SPH
Dean - SOD

APPENDIX VII: NACOSTI PERMIT

THIS IS TO CERTIFY THAT:
MS. MILLICENT JEMESUNDE KAPIGEN
of MOI UNIVERSITY, 0-60200 MERU,has
been permitted to conduct research in
Meru , Nairobi, Nyeri , Tharaka-Nithi
Counties

on the topic: *SITUATIONAL ANALYSIS OF CLINICAL LEARNING ENVIRONMENT FOR NURSING STUDENTS IN KENYA*

for the period ending:
11th July,2019

.....
Applicant's
Signature

Permit No : NACOSTI/P/18/71046/22658
Date Of Issue : 12th July,2018
Fee Recieved :Ksh 2000

.....
Director General
National Commission for Science,
Technology & Innovation

APPENDIX VIII: PLAGIARISM REPORT

SR895

ISO 9001:2019 Certified Institution

THESIS WRITING COURSE

PLAGIARISM AWARENESS CERTIFICATE

This certificate is awarded to

MILLICENT JEMESUNDE KAPIGEN

SM/PhDME/03/15

In recognition for passing the University's plagiarism

Awareness test for Thesis **entitled: SITUATIONAL ANALYSIS OF CLINICAL LEARNING ENVIRONMENT FOR THE UNDERGRADUATE NURSING STUDENTS AT SELECTED HEALTH FACILITIES IN CENTRAL AND EASTERN KENYA with** similarity index of 18% and striving to maintain academic integrity.

Word count:53501

Awarded by

Prof. Anne Syomwene Kisilu
CERM-ESA Project Leader Date: 01/07/2025