FACTORS INFLUENCING STUDENT CLINICAL TEACHING BY MIDWIFERY EDUCATORS IN NORTHERN MALAWI

BETTY CHIPHAKA

MScNECT0220

Dissertation submitted to the Faculty of Health Sciences, Department of Nursing and Midwifery in partial fulfilment of the requirements for the degree of Master of Science in Nursing Education (Clinical Teaching).

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By

BETTY CHIPHAKA

MSCNect 0220

Supervisors

Dr.PRISCILLA FUNSANI (PHD)

MRS FLORENCE LUNGU (MSc)

Dissertation submitted to the Faculty of Health Sciences, Department of Nursing and Midwifery in partial fulfilment of the requirements for the degree of Master of Science in Nursing Education (Clinical Teaching).

April, 2025

DECLARATION

I, Betty Chiphaka , declare that this thesis on Factors Influencing Student Clinical Teaching by Midwifery Educators in Northern Malawi is my original work and it has not been presented for any other awards at Mzuzu University or in any other University.

Student

Betty Chiphaka

Signature Date----------

Main Supervisor

Priscilla Funsani, PhD (Senior lecturer)

Signature**……** Date…….

Second Supervisor

Florence Tamanda Lungu` (Senior lecturer)

Signature ---------- Date----------

CERTIFICATE OF APPROVAL

The undersigned certifies that this thesis represents the student's work and effort and has been submitted with our approval.

Signature ---------- Date----------

Priscilla Funsani, PhD (Senior lecturer)

Main Supervisor

Signature**……** Date…….

Florence Tamanda Lungu` (Senior lecturer)

Second Supervisor

Signature ---------- Date----------

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DEDICATION

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LIST OF ABBREVIATIONS AND ACRONYMS

DRC	**:**	Democratic Republic of Congo
ICM	**:**	International Confederation of Midwives
NEPI	**:**	Nurse Education Partnership Initiative
NMCM	**:**	Nurses and Midwives Council of Malawi
SSA	**:**	Sub-Saharan Africa
SDG	**:**	Sustainable Development Goals
WHO	**:**	World Health Organization
MZUNREC	**:**	Mzuzu University Research Ethics Committee

CONCEPTUAL DEFINITION

Midwifery Clinical Educator:	A qualified midwife with current practice experience, who has completed a programme of study and/or demonstrated competence in teaching that includes curriculum development; use of instructional strategies; as well as measurement and evaluation of student learning (ICM, 2021).
Clinical Teaching:	Deliberate actions taken by an educator to facilitate students' learning (Gaberson et al,2015).
Midwifery Clinical Education:	This is the process of obtaining and developing professional skills by the students through interaction with their teachers to be used in providing midwifery clinical care to patients (Abedian et al., 2022).

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ABSTRACT

There is a global outcry that newly graduating midwives lack skills in providing midwifery care to women of reproductive age. Interventions have been implemented to ensure an enabling clinical environment for midwifery students. However, fewer mechanisms have been put in place to support the educators who are key people in teaching skills to the students. This study aimed to assess factors influencing student clinical teaching by midwifery educators in Northern Malawi. A qualitative exploratory descriptive study design was employed .Mzuzu University Research Ethics Committee (MZUNREC) approved the study (MZUNIREC/DOR/23/76). The data was collected by the researcher from 13 participants from the midwifery colleges and their training hospitals in Northern Malawi.

The study used a purposive sampling technique and participants gave consent for the study. A semi-structured interview guide was used to collect data. Participant's responses were transcribed verbatim. The data was manually analysed using content analysis from where categories, subthemes and themes derived. Themes which emerged under facilitating factors were: clinical preparation, allocating prescribed number of students in the clinical area, and availability of clinical teaching resources.

Theme which emerged under barriers to student clinical teaching were: negotiating multiple roles, negligent supervision, and students with challenging behaviour. The following themes emerged on strategies used in solving the challenges faced by midwifery clinical educators: cost sharing and creation of more opportunities.

The study results indicate that midwifery clinical educators are experiencing a lot of challenges during clinical teaching which has the potential to reduce the acquisition of skills among students. Addressing the challenges in midwifery education can help in the attainment of required skill competences and improve the self-efficacy of the graduates being produced. Quality graduates have the potential to help the country achieve sustainable development target goal 3.1 of reducing maternal mortality ratio to less than 70 per 100,000 live births by 2030 thereby improving the life expectancy of women at reproductive age.

Key words: Clinical educators, high student ratios, resources, students, clinical accompaniment.

CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.0 Introduction

Clinical teaching is defined as a step-by-step deliberate action done by an educator to guide students in their achievement of clinical competency (Hassan & Elsharkawy, 2017; Gaberson et al., 2015). Through the educator's role, midwifery students are helped to translate what they learned in class during theory into practice when they are in the clinical area or skills laboratory (Amro et al, 2018). This has made clinical teaching a key in midwifery education through its ability to equip students with knowledge, skills, attitude, and professional values for patient care (Anarado et al., 2016; Hassan & Elsharkawy, 2017). Midwifery being a practicum-based profession has made clinical practice more important compared to classroom learning (Arkan et al., 2018; Flott & Linden, 2016). This is so because clinical practice gives students real-life experiences and opportunities to translate their knowledge, skills, and attitudes into practice (Gaberson et al., 2015). Furthermore, clinical teaching has barriers and facilitators that are different from classroom teaching and the control of its teaching lies in the real environment not in the hands of the educators. This calls for clinical teaching to be looked into as separate entity (Rajeswaran, 2017).

Clinical teaching in midwifery programmes accounts for 60% of students' midwifery practicum (Borneskorg et al., 2023; Phuma-Ngaiyaye et al., 2017; Puspita & Utami, 2020). Students spend more time in the clinical area to learn, observe, and practice the skills they learned during theory in the classes into practice without harming the patient (Amoo & Ebu Enyan, 2022). The process of helping students successfully translate the theory into practice is done by midwifery educators from both training colleges and clinical areas (Phuma-Ngaiyaye et al., 2017). Besides educators from the training institutions, in Malawi and other countries, midwifery students are also being taught in the clinical area by clinical nurses (Hoebes & Ashipala, 2023). These nurses are called clinical mentors/preceptors as the words are being used interchangeably besides being different. The NMCM defines a clinical mentor as a registered nurse who has undergone a mentorship programme after one year of clinical experience in the field she is working in (Nurses and Midwives Council of Malawi, 2013). In addition to experience the mentor is required to be licensed to practice as a mentor. These

mentors also plays a role of helping students to translate what they learned in class to practice. This is achieved through presence of educators in the clinical area, where teaching, supervision, role modelling, and assessments are used to help students gain the necessary competencies (Needham et al., 2016). In addition to teaching students, these clinical mentors are responsible for patient care. As a result, they are subjected to a high workload. This limit, their, involvement in clinical teaching which has affected student acquisition of competency in the practice area. ICM provides global standards that midwifery training institutions are required to follow for their midwifery education. The standards include the education qualification of faculty members; admission and responsibility of students; content of the curriculum; and enabling environment to teach the students (ICM, 2021). Unfortunately, not all midwifery training institutions are operating according to global standards stipulated (Barger et al., 2019).

Global report has also acknowledge that midwifery education is facing challenge. Evidence in the State of World's Midwifery Report of (2021), indicates presence of poor student 'accompaniment in clinical areas globally. The report found that this is as a result, of shortage of midwifery educators; high student ratios; inadequate resources; and a lack of skills among educators (International Confederation Of Midwives, World Health Organization, & United National Population Fund 2021). Studies done in developed countries have also being reporting of facing challenges in its midwifery education. A study done in Australia about recognition of registered nurses supporting students in the hospital placement reported that nurses complained that teaching students was extra work in their role of caring for patients. Furthermore, the nurses complained that they were already understaffed and they found it difficult to teach students (Anderson et al., 2020) .This leaves midwifery students in the practice area unattended as the number of educators from training institutions are not enough to teach students in the practice area. Inadequacy in their numbers also subject them to have limited time to spend in the clinical practice. In addition to clinical teaching, they are also responsible for classroom teaching and other school-related administrative positions too. (Anderson et al., 2020). This makes it difficult for them to divide their time due to multiple roles. This has led to their detachment from the hospital setting, reducing the time they spend with the students in the hospital area. As a result, their skills keep on decreasing due to the limited time they spend in the practice area (Asegid et al., 2023). Evidence in studies indicates that there is poor quality of midwifery education in most countries which affects the competency of graduating

midwives (McFadden et al., 2020). These challenges might affect students' attainment of midwifery skills in the clinical area.

Global evidence indicates that midwifery training institutions are faced with negative and positive factors that impact the students' clinical teaching process (Kitaba et al., 2021; Bogren et al., 2020; Gurková et al., 2016; Talato & Ngangue, 2022). This has led to midwifery students graduating with inadequate skills. As a result, newly graduating students fail to offer the expected standard of care they are supposed to provide to women of reproductive age (Mramel et al., 2024). In developing countries like South Africa, turkey and Malawi inclusive the challenges faced by midwifery education has been reported to impact on newly qualified midwives' perceptions of their level of midwifery clinical competence. The graduates were reported to lack confidence in working alone after graduating, as they preferred working under maximum supervision. The graduates complained that they had poor preparation during preservice education, nurses are faced with work overload, high student numbers, inadequate number of educators and inadequate space in the clinical area (Ngcobo et al., 2021. Gül et al., 2022. Mbakaya et al., 2020. & Middleton et al, 2014). This affects their ability to offer quality learning opportunities to students hence student's acquire inadequate skills in the clinical area.

Amidst these challenges, training institutions in Malawi are also commencing on new midwifery programs and increasing their midwifery intakes to meet the country's need for more midwives (Nove et al., 2018). Like in other countries this has put pressure on both educators from the college and nurses in the clinical area as the challenges are similar. According to the study done by the White Ribbon Alliance, Malawi has a higher need for qualified midwives (20,814) to meet its population demand (A count of bedside midwives in Malawi, 2017).These are the same nurses required to take part in teaching students. As a result students spend much time in the clinical area without support from the clinical nurses or their educators, hence they find it difficult to transfer what they learn in classroom teaching into practice (Mramel et al., 2024). Most of these challenges have been found in studies done among students, few were done to hear the views of educators. Amidst increased need to recruit more midwives to meet the demand for skilled assistance which has led to an increase in midwifery student enrollment by various training institutions students have reported of inadequate skills among new midwifery graduates. This study was conducted to explore from educators on factors

influencing student clinical teaching by midwifery educators in Northern Malawi in order to improve their competency.

1.1 Background

To fight the global burden of maternal mortality, the Human Resources for Health made a political declaration recommending an increase in nurses and midwives including also other cadres responsible for giving care to women of child bearing age (Sharma et al., 2019). Nursing and midwifery, being one of the largest cadre responsible for providing maternal health services in the health system, have taken the declaration on board. Evidence indicates that nurses and midwives account for more than 50% of health workers in the system (Nzengya et al., 2023). Globally, nurses and midwives are the key people in providing maternal care services. They are the first point of contact women meet whenever they come to the hospital. In addition they are known to provide almost 90% of patient's basic care if trained to international standards (Nzengya et al., 2023).As a result they are key to the global reduction of maternal mortality rate (Nove et al., 2021).

Globally, the world requires more than 900,000 midwives to meet its population demand (Nove et al., 2021). Increasing the number of midwives graduates can help in meeting the demand their by reducing maternal mortality rate. Countries with low social economic status are the ones that have the highest shortage of midwives. Furthermore, these regions account for more cases of global maternal mortality rate (Sangy et al., 2023). In meeting the need for more midwives, training institutions in these regions have embarked on new midwifery programmes to meet the demand. In addition, they have also increased intakes for already existing programs to meet the needs of its growing population in maternal health services (Nove et al., 2018).

Since institutions has respond the need for more midwives by increasing students intakes an impact in quality of midwifery education has been noted as recent studies have reported congestion of nursing and midwifery students both at the classroom level and in the hospital area (Gemuhay et al., 2019; Mbakaya et al., 2020. Mtegha et al., 2022; Panda et al., 2021). This increase in student intake in training institutions has happened globally regardless of countries social economic status. A report from the American Association of Colleges of Nursing reported that for the past 10 years, they have seen an increase of 56% in nursing and midwifery

student's intake (Bakewell-Sachs et al., 2022). Though increasing the student's intake has been seen as an immediate solution to meet the demand for more midwives, midwifery education has reported facing challenges which needed to be addressed first before institution increases their intakes. Most of these challenges are more in countries with low and middle- social economic status yet, they are the regions which are much affected with the inadequate number of midwives and their quality of midwifery education was been reported in studies not to be according to international standards. These regions were reported to be faced with inadequate resources, poor and inadequate infrastructure, and a shortage of midwifery educators both from the college and nurses working in the clinical area (Ahmady & Sadati, 2016; Bogren et al., 2022; Sharma et al., 2019).

A study that was done in the United States of America on a rapid assessment tool for affirming good practice in midwifery education programming `reported that training institutions are faced with inadequate material resources and human resources. The few human resources available lack formal qualifications in education (Fullerton et al., 2016). The strategy to increase the student intake as a solution to a global shortage of midwives was supposed to also look at the challenges current midwifery education is facing and find solutions.

To concur with the above the WHO report of (2016) stated that the positive pressure from the government to produce more midwives was supposed to also come with additional financial support in midwifery education. This would have helped to enhance the continuity of quality of midwifery education (Sidebotham et al., 2018). However, this is not the case in most developing countries as midwifery education is being underfunded (World health organization, 2019; Mumbo & Kinaro, 2015). As a result, the development of increasing student intake has come with a negative effect on the quality of midwifery education being offered in various training institutions. The high student intakes have put pressure on the already existing problems that midwifery education faces (Baloyi et al., 2020; Nove et al., 2018). Recent studies being done are still reporting challenges being faced by midwifery education in different countries. A study that was done in Comoros, Trinidad and Tobago on the development of a global Midwifery Education Accreditation Programme reported similar challenges (Nove et al., 2018). The study found that midwifery education is operating with inadequate human and material resources used in teaching students in both clinical areas and classrooms (Nove et al., 2018). This has negatively affected the excellence of midwifery education being offered.

Students fail to follow the procedure guidelines as they lack resources and are full of improvising. As a result, they fail to gain the required skills (Mbakaya et al., 2020).

A survey conducted among 73 World Health Organization's country members on key data on the quality of education from WHO global midwifery educators revealed that 100% of educators are faced with challenges (International Confederation Of Midwives, World Health Organization, & United National Population Fund,2021). The study found shortage of teaching equipment and supplies in classrooms, skills labs, and clinical settings (International Confederation of Midwives, World Health Organization, & United National Population Fund, 2021). Furthermore, despite that over half of the educators were midwives by profession, less than half of the midwives were not trained as midwifery educators. As a result, they depend on their clinical experience skills to train others (International Confederation of Midwives, World Health Organization, & United National Population Fund, 2021).

Midwives working in hospitals who also work as clinical midwifery educators in their work environment (hospital) also experience challenges with student clinical teaching. A study done in Australia on recognition for registered nurses supporting students on clinical replacement showed that the registered nurse educators regarded the students as extra workload (Broadbent, 2020). Furthermore a qualitative study done in Estonia on midwife students and hospital mentors' satisfaction with professional practice reported similar challenges. The mentors complained of lacking time to teach the students in the clinical area and also provide care to patients at the same time (Sildver et al., 2022). This has caused registered nurse educators to put much emphasis on patient care, leaving students unattended (Broadbent, 2020).

The quality of education in low- and middle- social economic countries is the one that has been much affected by the shortage of midwifery educators. The State of Midwifery Report 2021 results indicated that in low-income countries, only 53% of educators teaching midwifery have midwifery qualifications, while the rest of the educators are not midwives. The middle-income countries have 55% of midwife educators compared to 96% in high-income countries, which affects their delivery of the required competencies to midwifery students (International Confederation of Midwives, World Health Organization, & United National Population Fund, 2021). Furthermore, if educators teaching midwifery are not midwives themselves, they have poor midwifery skills and they are not able to impart the required skills to the students (Kitaba et al., 2021). These results indicated that in high-income countries, midwifery educators are

more competent as compared to other regions. This can be one of the reasons that the death of women at reproductive age in these regions is on the lower side compared to the developing countries. However, both developed and developing countries still experience challenges in their midwifery education besides that some regions are not much affected.

In a mixed method study that was done on descriptive analysis of midwifery education, regulation, and association in 73 countries: the baseline for a post-2015 pathway reported some challenges. The study found that 77% of the countries reported having an inadequate number of educators, lack of basic equipment and inadequate opportunities for students learning. This has limits the quality of their nursing education (Castro Lopes et al., 2016). Furthermore, a study conducted in the America on knowledge and use of the ICM global standards found similar results. The study found that there is a shortage of faculty members with a heavy workload to teach students both in the clinical area and the classroom (Barger et al., 2019). The results demonstrated that 60% of the faculty members held leadership positions in their institutions, which limited their time spent with students.

Similarly, a study conducted at Eastern Mediterranean University in Turkey on the difficulties faced by nursing clinical educators in their clinical environment found that 41% of participants complained of a heavy workload and 64% complained of high student numbers (Dağ et al., 2019). This shows that the number of educators and teaching resources in these countries is not enough. As a result, student midwives are graduating with inadequate competencies. Studies done in India and Turkey also reported similar challenges. In addition a descriptive qualitative study design that was done in Turkey on undergraduate nursing students' experience related to their clinical learning environment and factors affecting their clinical learning process reported similar findings (Arkan et al., 2018). The study found that congestion in the practice area and inadequate of resources that affected their learning in the allocated practice areas (Arkan et al., 2018). The students complained that what they learn in theory and practice in the simulation room is not what they experience in the practice area (Arkan et al., 2018). As a result, they find it had to relate the too and adjust (Arkan et al., 2018). A study done in India on challenges faced by midwifery facilitators in providing midwifery education showed that inadequate resources and lack of competencies among clinical educators were some of the challenges that affect them during student teaching in the hospital setting (Mahadalkar et al., 2020).

Similarly, a qualitative study that was done in Turkey on difficulties in clinical nursing education: views of nurse educators reported that educators are meeting challenges in the hospital setting. The study found that forty-two per cent, thirty-three per cent and sixty-seven per cent reported experiencing too much work, inadequate clinical sites and being unable to meet course objectives respectively (Dağ et al., 2019). In addition a qualitative study done in Southeast Asia on facilitators of and barriers to providing high-quality midwifery education reported that midwifery educators had no formal qualification in education. They lacked pedagogical skills to be used in teaching students which has resulted in their inadequate hands-on experience (Bogren et al., 2022).

Similarly, studies in Sub-Saharan Africa (SSA) have also been reporting that midwifery education is faced with challenges and efforts have been taken to develop the quality of clinical education though the impact is at a slow pace. A study done in the Democratic Republic of Congo on barriers to delivering quality midwifery education programmes reported challenges (Bogren et al., 2020). The study found that 10 out of 22 educators lacked pedagogical skills and only 5 educators had the proper academic qualification to teach the midwifery program being offered (Bogren et al., 2020). Another study conducted in Ethiopia on how well pre-service education prepares midwives for practice reported that 79% of students were not supported by midwifery educators (Yigzaw et al., 2015). This has reported to affect the students' clinical skill acquisition (Yigzaw et al., 2015). Similar observations have been reported in South Africa, where students felt that they were well-equipped theoretically but they lacked adequate skills to perform some procedures in the clinical area (Ngcobo et al., 2021). They admitted that the educators did not put much effort into supervising them during clinical placement (Ngcobo et al., 2021). The presence of educators in the practice area gives students chances to ask their educators where they don't understand. Educators also can be aware of the challenge's student's face in the clinical area.

A cross-section survey done in Zimbabwe on student midwives' self-assessment of factors that improve or reduce confidence in clinical practice reported similar challenges (Mudokwenyu-Rawdon et al., 2020). The survey found that students are faced with a shortage of educators and basic resources to be used in the attainment of their clinical skills. As a result, they lack confidence in providing or learning to provide care to patients (Mudokwenyu-Rawdon et al., 2020). In addition, a study done in Zambia on factors influencing student nurses' clinical

learning during their clinical practice at Rusangu University, Monze campus, reported that 40% of the students had average clinical experience. The study found that this was due to a shortage of equipment and a shortage of educators in the practice area, which led to poor support (Kaliyangile, 2020).

Malawi is one of the countries in the SSA region faced with similar challenges in midwifery education, especially with inadequate skills acquisition among new graduates (Bvumbwe & Mtshali, 2018; Mtegha et al., 2022). Efforts that have been made to improve the quality of midwifery education has proven to have minimal impact, as complaints of inadequate skills from midwifery students and new graduates are still being reported. Furthermore, the country reported a high maternal mortality rate projected at 381 per 100000 live births amidst the country making efforts to reduce it (Riches et al.2022).

A mixed study done at three nursing and midwifery colleges in Northern Malawi found that students lacked clinical accompaniment, teaching and learning resources, and educators rarely supervise them in the clinical area (Mbakaya et al., 2020). These findings are also similar with other studies done in the country from the perspective of midwifery educators. The studies reported that educators a lack of resources and fewer opportunities to further their education, as well as difficulty in maintaining their clinical skills (Bvumbwe & Mtshali, 2018). Midwifery, being a practice-based profession, requires students to have support from educators in the clinical area. This helps to guide them on the competency they are supposed to acquire. In addition, both the students and the educators require resources to practice. However, with the shortage of resources some procedures are done using shortcuts and students find it hard to relate to what they learned in class. As a result, they fail to grab the competency.

Furthermore, a mixed study done on exploring pre-registration nursing and midwifery students' clinical practice in Malawi, reported that 75% of the students who were among the study participant received supervision from a clinical educator in the clinical area. However, they felt that the supervision was inadequate (Kaphagawani & Useh, 2018). The challenges, in the end, have the ability to affect the overall quality of midwifery education the country is offering. The impact on midwifery education will make midwifery training institutions graduate nurses who lack skills in the midwifery profession. This has the potential of just increasing their numbers on paper, but they will be providing poor midwifery services. This will make our maternal mortality rate to remain high beside efforts being done to reduce it. Although studies

have been conducted with the effort of understanding and improving student's clinical learning environment in SSA, few studies have focused on the educators' teaching environment. The growing student-educator ratio and challenges students face in the clinical area raise questions about the quality of midwifery clinical education students are offered by midwifery educators. Therefore this study explored factors influencing student clinical teaching by educators in order to improve the quality of midwifery education outcomes among new graduates. .

1.2 Problem Statement

Several studies and anecdotal notes have reported of poor clinical skills among newly graduated midwives (Bradley et al., 2015; Bvumbwe & Mtshali, 2018; Mbirimtengerenji & Adejumo, 2015; Mtegha et al., 2022). These concerns persist despite recent effort to expand midwifery training in Malawi in response to the global and country shortage of midwives (Baloyi et al., 2020; Bweupe et al., 2018; WHO, 2016). While some interventions have explored how the clinical environment affects students, few studies have examined the experiences of midwifery educators who are directly responsible for clinical teaching. In addressing the global and countries need for more midwives training institutions in Malawi have increased student intake by 119% while educators by 26% (Malata et al., 2013). This in proportion increase has put pressure on training institutions hence compromising its educational standards. In addition, the Malawi Health Strategic Plan 2017-2022 reported that for the past three years, the government has reduced its funding to preservice education with midwifery education inclusive in both government and Christian Association of Malawi institutions. The strategic plan further reported that there is a poor quality of pre-service education with the Christian Association of Malawi being more affected besides being the one producing more midwives in their institutions compared to government institutions. This has further worsened the already existing challenges faced by midwifery education. This study therefore aims to explore factors influencing clinical teaching by midwifery educators in Malawi.

1.3 Broad objectives

The broad objective of this study was to explore factors influencing student clinical teaching by midwifery educators.

1.4 Specific objectives

Specifically, the study aimed to:

- To describe factors that facilitate clinical teaching by midwifery educators.
- To explore barriers to clinical teaching faced by midwifery educators.
- To describe strategies used by midwifery clinical educators to overcome the factors that hinder clinical teaching.

1.5 Research question

- What are the factors that facilitate student clinical teaching by midwifery clinical educators?
- What are the barriers faced by midwifery clinical educators in clinical teaching?
- What strategies do midwifery clinical instructors utilise in the clinical area to overcome the challenges?

1.6 Significance of the Study

Studying the factors that influence midwifery clinical teaching by midwifery educators is very important in helping meet the global sustainable development goal number 3 target 3.1 of reducing maternal mortality rate of less than 70/ 100,000 live births by 2030.

Malawi's maternal mortality rate estimated at 381/100,000 live births is rated one of the highest (Riches et al, 2022). One of the major contributions to this has been the lack of basic skills among midwives due to poor pre-service education. Studying the factors that influence midwifery students' clinical teaching by midwifery educators will expose both positive and negative factors. This may help the government to work on them thereby improving the skills of newly graduating midwives entering the health system.

In addition, policymakers need to be aware of issues that are happening for them to make strategies that may help to solve problems being experienced in their country. Studying the factors that influence midwifery students' clinical teaching may expose important issues that midwifery education is meeting, and if policymakers deliberate on them and come up with different strategies may improve the quality of midwifery education.

Similarly, as training institutions, their goal is to produce quality midwifery graduates that will make a positive impact on mothers of reproductive age in their community. Results from this study may help training institutions to find and report gaps and challenges that affect students' clinical teaching and learning. This may improve the quality of graduates produced in different colleges at different levels thereby improving the quality of nursing and midwifery education in Malawi. In turn, the study may help to improve the clinical teaching and learning environment of nursing students in attaining clinical competencies. Furthermore, the study results may act as a baseline for further studies on improving midwifery clinical teaching and learning in the country.

Conceptual model-Donabedian Model

This is a model used to assess the quality of care. The model was developed in 1997 and modified in 2005 and it was defined by Avedis Donabedian. The Model comprises three important elements structure, process, and outcome (Ibn et al., 2013). The elements interact together for them to produce results whether positive or negative.

Structure

According to the Donabedian Model, this refers to the attributes of the service providers and the setting where care is being offered (Ibn et al., 2013).

Process

Process refers to what and how the providers provide the intended services (Ibn et al., 2013)

Outcome

Outcome refers to the intended result that is supposed to be achieved. This is assessed by comparing to indicators (Ibn et al., 2013).

Diagrammatic presentation of the Donabedian Model

Figure 1: Diagramatic presentation of the Donabedian Model

(Ghofran et al., 2024)

Application of the Donabedian Model to factors influencing students' clinical teaching by midwifery educators

The Donabedian Model is used when there is a need to improve the quality of care being provided. This model is being borrowed in this study of factors influencing midwifery clinical teaching by midwifery educators because the study want to improve the quality of midwifery education. In this study the hospital setting will be replaced with the clinical area setting, the providers of patient care will be replaced with educators and the patients will be replaced with the students and the intended results will be issues of quality midwifery education.

Structure

According to the Donabedian Model, this refers to attributes of the personnel and the setting where care is being offered (Ibn et al., 2010). In this study, the structure setting will be a nursing college and the structure personnel will be midwifery clinical instructors. The researcher will look into the structural challenges in the colleges such as the availability of clinical sites, and among instructors' factors that can affect students' clinical teaching such as the skills of clinical instructors.

Process

What and how clinical teaching is being provided to the students. This study looked into challenges that clinical instructors face when teaching students in the clinical area such as high workload, high student ratios, lack of resources, students with challenging behaviour and poor communication between clinical and training institutions.

Outcome

Donabedian defines outcomes as the results of the service or the health care received**.** If the intended result has been achieved can be assessed by comparing it to indicators which means the goal has been achieved. This model has helped the researcher to find out from midwifery clinical instructors the results of the challenges they have been facing in teaching students by midwifery such as poor student skills and improvising of resources to use for students' clinical teaching.

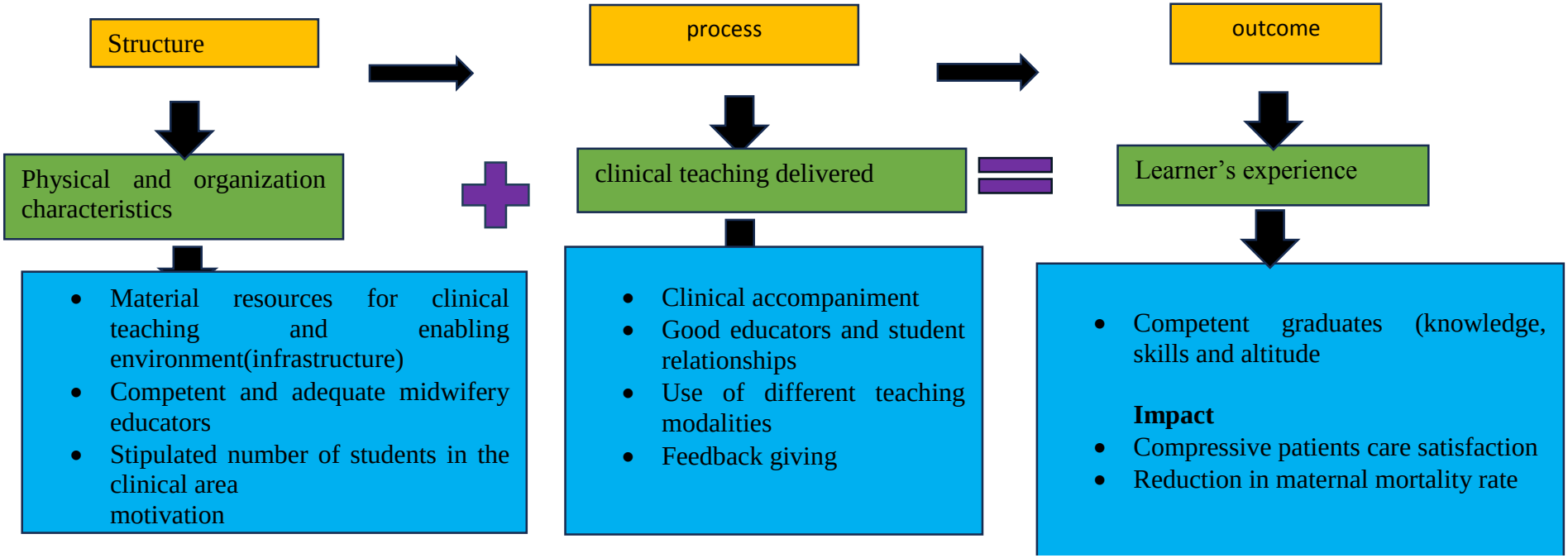

Figure 2: Diagrammatic application of the Donabedian Model to factors influencing midwifery clinical educators in students' clinical teaching

(Ghofran et al., 2024)

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

A literature review is a comprehensive search of what has been written about the topic of interest. This is very important as it helps the researcher to know the recent, relevant studies that have been done on the issue to be studied. Furthermore, the researcher can know also what the literature says about the problem to be studied. The literature review also helps to uncover areas that are under-researched or need to be further researched (Trancy, 2020). This chapter contains what other researchers have written on factors influencing students' clinical teaching by midwifery educators. The researcher read peer-reviewed journals that were related to the topic. All information that seemed to be similar to the topic was summarised. Some of the peer-reviewed journals used in this study were from sub-Saharan Africa and a few from other parts of Africa and America.

The information has been taken from the following search engines: PubMed, Research Gate, Sage journals, Science Direct, Google Scholar, and Research for Life. The researcher used studies from within 10 years with many studies from a period of five years. Other articles were also obtained from the reference list of the articles found in the search engines.

2.1 Midwifery clinical educators

The International Confederation of Midwives (ICM) defines a midwifery educator as a professional midwife who has current clinical knowledge and competence in teaching students in the clinical area. They achieve this through the use of instructional strategies, measurement, and assessment. (ICM, 2021). Similarly, in Malawi the Nurses and Midwives Council of Malawi (NMCM) defines a midwifery educator as a professional midwife who has expertise in midwifery and has two years prior clinical experience before joining the teaching profession, possesses a qualification that is above the level of the programmes being studied. In addition the educator need to have a formal qualification in midwifery education (Nurses and Midwives Council of Malawi, 2013). The clinical experience before joining the teaching role is very important as it helps educators to have enough skills for students' clinical teaching. (Teferra &

Mengistu, 2017). To concur with the above, evidence in the literature indicates that educators joining teaching roles without prior clinical practice experience have inadequate skills. Furthermore, they are reported to lack confidence in helping students in the practical area (Asegid et al., 2023). However, against the stipulation some educators have joined the teaching institutions without two years' experience. As a result, they find difficulties in helping students acquire competency for providing midwifery care as they are responsible for teaching the students in the practical area (Panda et al., 2021). These educators can either be based in the training institutions or they can be based in the practical site (Panda et al., 2021). Midwifery educators based in the clinical site are called preceptors and mentors. A preceptor as a registered nurse, or midwife who has undergone a 6-day certification mentorship program (Nurses and Midwives Council of Malawi, 2021). Other studies have also defined the term midwifery educator. West et al (2016) defined a midwifery clinical educator as a midwife who is teaching midwifery students. However Professional bodies in most countries regard all professional registered nurses as being responsible for student clinical teaching in the clinical area. Studies has reported that their preparation for this role and their numbers compared to the number of students remains in question (Rebeiro et al., 2017). The ratio of teacher to student is estimated at 1:10-15 against the stipulated ratio of 1:5 (Middleton et al., 2014). In Malawi, the Nurses and Midwives Council of Malawi in its scope of practice stipulated that professional registered nurses are required to play the role of educator in the clinical area (Nurses and Midwives Council of Malawi, 2021). The definition of who is midwifery educator at the institutions is very crucial. This is so as it determines the quality of midwifery educators the institutions will employ to be teaching its students. Evidence in the literature indicates that midwifery educators with high qualifications and experience provide effective clinical teaching to students (Kitaba et al., 2021). Evidence in literature indicates that most of educators that are teaching students does not meet the professional stipulated standards For example the state of worlds midwifery report (2021) found that out of 70 countries that took part in the study only 46% reported that all their midwifery educators are midwives themselves .In addition 49% reported that not all midwifery educators teaching midwifery are midwives. While 6% reported that none of their educators teaching midwifery are midwives themselves (Nove & Homer, 2021). Similarly, in Malawi midwifery students are being taught by whoever is providing care at the hospital including nurses at diploma level. This is against the NMCM and ICM stipulation and has a negative impact on midwives student skill and knowledge acquisition.

2.2 Roles of midwifery clinical educators

The midwifery clinical educator plays the role of transforming midwifery students into a professional midwife through clinical teaching in the clinical area. Quinn and Hughes (2013) define clinical teaching as a series of deliberate actions on the part of the teacher to guide students in their learning. To achieve these roles midwifery clinical educators, teach, supervise and assess, students in the practice area (Quinn& Hughes, 2013). Furthermore, the midwifery educator acts as a role model to the students through the way they conduct themselves in the clinical area (Adnani et al., 2022). Midwifery clinical roles are the ones that help students to be able to translate their theory into practice (West et al., 2016). However, evidence in the literature indicates that most educators have a bias toward the roles they perform when they have gone to the clinical area. Midwifery educators usually spend less time teaching the students in the clinical area, usually they go to the clinical area for students' assessments (Mbakaya et al., 2020). Spending less time in the clinical area makes educators not to perform their roles effectively. Furthermore, when they teach the students evidence has indicated that they cling to the traditional mode of providing information to the students. In a systematic review that was done on faculty development programs based on the Harden teachers role framework model reported that most educators are still using the traditional methods of teaching students instead of facilitating students (Kohan et al., 2023). Educators complained that they are failing to embrace new teaching methods due to shortage of resources, as a result, they ended up using the traditional methods (Kohan et al., 2023). Midwifery being a practicum-based professional, educators also need to make sure they are facilitating student learning other than concentrating on assessing students only.

Clinical supervision

Clinical supervision is the help that a student receives in terms of support, guidance, and feedback in the clinical area from a competent professional (Mudokwenyu et al., 2020). This is done to help student acquire knowledge, skills, and altitude for patient-professional practice (Mudokwenyu et al., 2020). Midwifery clinical educators due to their expertise in the field have a major role in supervising the students in the practical area. This helps students in the clinical area to achieve their objectives at a particular practical site. The presence of educators in the clinical area is key in students' clinical supervision. This helps the supervisor spends more time

with the student and can observe if the student is achieving objectives or not (Mselle et al., 2022).

A qualitative study that was done in Sweden on developing confidence during midwifery training reported that presence of educators in the clinical area enhance students supervision. (Bäck & Karlström, 2020). These midwifery clinical instructors also help the midwifery students in the clinical area transform theoretical knowledge into practical skills. Besides its significance in student clinical teaching supervision of students in the clinical area is meeting with a lot of problems. Midwifery educators from the college are not enough to perform this role. In addition those based in the clinical area regard supervision of students as an extra burden. This happens due to the high workload and lack of monetary motivation as their primary role is patient care (Malwela et al., 2016). Evidence in the literature has indicated that most student midwives are not satisfied with the supervision they receive in the clinical area (Malwela et al., 2016; Mbakaya et al., 2020). To concur with the above a qualitative study that was done in Nigeria on the experiences of nursing /midwifery students in the clinical learning process reported that students were not satisfied with the clinical supervision they received in the clinical area (Jafaru et al., 2022). Students reported that they were only supervised during the first two weeks of their allocation then they were left alone without any guidance (Jafaru et al., 2022). In the clinical area, qualified midwives usually orient students for the first one to two weeks. They usually do that to let the students get oriented to the ward routine so that they can use them as a pair of hands due to high patient numbers compared to available staff (Jafaru et al., 2022). The high workload for clinical staff has been a great challenge as educators from the college also are not usually available in the clinical area to teach the students. 'Evidence in the literature has indicated that the midwifery educators themselves have also accepted that the supervision they provide to students is inadequate.

A study that was done in Zambia, Lusaka on clinical supervision of midwifery students at the university teaching hospital of nursing and midwifery reported that student experienced poor supervision (Bweupe et al., 2018). The study found that only 30 % of the participants had adequate supervision and 94 % had inadequate supervision (Bweupe et al., 2018). In addition 90% of the educators supervising the students admitted that they have never been trained in clinical supervision (Bweupe et al., 2018). Furthermore, a cross-section study that was done in Bangladesh on findings from a context-specific accreditation assessment at 38 public midwifery education institutions reported similar findings (Bogren et al., 2021). The study

found that only 34% of the educators regularly visit the students in the clinical area while 66% reported not being available to students in the clinical area (Bogren et al., 2021). Poor student's supervisions affects student's skill acquisitioning in the clinical area.

Student's clinical supervision needs to be taken seriously as it plays a role in helping student acquire adequate skills during the time they are allocated in the clinical area. Even students themselves they have admitted gaining adequate skills when they are properly supervised in the clinical area

To concur with the above sentiments a qualitative exploratory study done in Pakistan found that students reported that they had a positive clinical learning environment due to availability of educators in the clinical area which helped them gain them adequate hands-on skills in midwifery care (Lakhani et al., 2018). Furthermore a systematic review and meta-thesis that was done in India on challenges faced by student nurses and midwives in clinical learning environments reported that availability of instructors and the supervision they offer facilitate clinical teaching and learning (Panda et al., 2021).

Role model

Midwifery educator has the role of developing midwifery students into professional midwives through their professional attitudes and behaviour and skills. (Ashipala & Shaluwawa, 2021; Nieuwenhuijze et al., 2020). This calls for educators to uphold the nursing standards in the clinical area so that students should be learning the ideal (Ashipala & Shaluwawa, 2021).Clinical teachers need to be aware that whatever they are doing in the clinical area has an impact on the professional development of their students. To be a role model midwife needs to have vast experience in the profession and be able to deliver the required skills to the students in a professional manner without intimidating the students. These attributes of a clinical educator motivate students as they have someone to look up to in the professional.

A good example is from an Iranian study done on barriers to practical learning in the field which reported that students regard instructors who are kind and have competency in the field as their role models (Jahanpour et al., 2016). . As a result, they look up to them and wish to be like them when they complete their studies (Jahanpour et al., 2016). This calls for midwifery educators to create a conducive environment and a good relationship with the students. This conducive environment helps the two to be able to interact with each other without fear in the

clinical area. Albert Bandura in its social learning theory stated that students learn by attention, retention, motivation, and production. In the clinical area midwifery students observe what clinical instructors are doing, they relate it to what they learned in class then they practice it later on they become competent in what they observe.

A study that was done in Indonesia on social learning theory in clinical settings: connectivism, constructivism, and role modelling approach reported that those students who take their instructors as role models reported having effective clinical teaching (Nieuwenhuijze et al., 2020). Furthermore, a qualitative study that was done in the Netherlands on midwifery students' perspectives on how role models contribute to becoming a midwife on students' perspectives reported similar findings (Nieuwenhuijze et al., 2020) . The study found that having people they can learn from in the clinical area facilitates their learning as they put a figure to what they are learning already (Nieuwenhuijze et al., 2020).

However educator's role as a role modeling has been neglected as educators concentrate on other roles even their institutions mentor them in other roles like supervision and clinical teaching. Evidence in a systematic review of faculty development programs based on the Harden teacher's role framework model reported that out of 119 articles that were reviewed only 4.2% of them concentrated on programs that develop faculty members as a role model (Kohan et al, 2023). The percentage is significant as it will make faculty members forget that one of their roles is act as role models to students. Needham (2016) reported that professional role modelling of educators is a facilitating factor in student clinical teaching as students emulate their educators in knowledge, skills, and altitude.

However a few studies have recommended that some educators remembers that role modelling is significant in students learning. In addition a study done in Ethiopia on knowledge and attitude towards nursing clinical preceptorship among Ethiopian nurse educators found that 48% of educators knew their role of modelling in the clinical area (Teferra & Mengistu, 2017).. Midwifery clinical educators need to act professionally in the clinical area if they want to produce graduates who will also be professional midwives. Issues of professional conduct are very crucial in midwifery.

However a challenge have been also observed as students are not only being taught by educators in most settings, and these nurses sometimes they do not act as role model and

students learn some of the un professional behaviour from them. Evidence in a qualitative study that was done in southeast Asia on Facilitators and barriers to providing high-quality midwifery education reported that students were supervised by whoever was at the clinical sites (Bogren et al., 2022). Even studies done among students, unprofessional conduct of qualified staff has been reported. In a qualitative study that was done in Tanzania on experiences of clinical teaching-learning among medical and nursing students during their internship reported some unprofessional behaviour (Mselle et al., 2022). The student reported that they emulated their professional dressing from their instructors who did not follow the clinical dressing code. The students further reported that they observed some instructors treating patients bad which they took it as normal since they are their role models (Mselle et al., 2022).

Unavailability of professional educators in the clinical area compromise the role of role modelling to the students. Evidence in a study conducted in Malawi has confirmed this.

The study that was done on undergraduate students' perceptions of the role of the nurse educator during clinical placements at Kamuzu College of Nursing, students reported that instructors rarely supervise them in the clinical area. (Msiska et al, 2014). They also reported that they usually spend more than two weeks without a supervisor (Msiska et al, 2014). The students further complained that when they visit them, their approach is also poor; among others including shouting at them in the presence of patients (Msiska et al, 2014). The absence of midwifery educators in the practical area limits the time they spend with the students. As a result, students learn from whoever is available in the clinical area. This has an impact on the way students conduct themselves in the clinical area. The study was conducted to look into the factors that influence midwifery clinical teaching by midwifery educators.

Clinical assessor

Midwifery educators are required to assess students in the practical area to ascertain if learning is taking place. Students are required to be assessed in terms of skill knowledge and altitude. Time educators spend with the students in the clinical area gives them an opportunity to effectively assess the students. However, midwifery educators in the clinical area face challenges in assessing students due to high patient workload and failure to fail students. A study that was done in Ireland on Factors Affecting Preceptor Midwives Experiences of Competency Assessment Failure among Midwifery students reported that preceptors feel sorry

for fail Students (Bradshaw et al., 2019). The preceptors fear to disappoint student and also to avoid work overload as they are supposed to assess the student again (Bradshaw et al., 2019).

Clinical teaching

The clinical area is the only place where students will meet the patient in a real setting. Clinical educators play a very critical role in teaching students to attain competence in knowledge, skill, and attitude toward the profession. Educators after teaching the students expect them to practice in the clinical setting. However, educators are complaining that students are faced with inadequate opportunities in the clinical area. A qualitative study that was done in Iran on exploring the barriers to utilizing theoretical knowledge in clinical settings reported that some clinical sites had few cases where students could learn (Hashemiparast et al., 2019). . This is due to high student rations, as compared to the number of patients. Since their no other sites educators were forced to send these students to these areas (Hashemiparast et al., 2019).

Clinical evaluator.

Midwifery educators after teaching students have a role to assess if students learning has taken place. This role allows educators to know how far the student has gained the knowledge, skills, and attitude toward the set objectives. However, midwifery educators usually fail to evaluate students due to workload and lack of resources to be used (Bweupe et al., 2018). An integrative review done on barriers to clinical education from the perspective of nursing students in Iran reported that students were not evaluated in the clinical area (Amini & Amini, 2020). This cause educators to find it difficult to know if they have grasped the skills before going to another complex skills.

2.3 Factors that facilitate clinical teaching by midwifery clinical educators.

The clinical midwifery environment is important to both the midwifery student and midwifery clinical educators. This is so as it determines the quality of midwifery education being offered by an institution. Midwifery educators as key people in providing midwifery education to midwifery students require a conducive environment for effective midwifery education. It is the responsibility of the institution's management to make sure its educators have a conducive environment for clinical teaching. The following factors have been found in the literature to facilitate clinical teaching.

Provision of objective clinical learning tool

The clinical objectives tool is a stipulated guideline that contents competencies students are required to achieve at a particular allocation in the clinical area. The tool acts as a guideline both to the students and the educators at the end of the allocation. In addition both students and educators can assess themselves on their achievements in that allocation. Having objectives in the clinical area has proven to be a key to achieving skill-based learning. Boucetta et al (2023) define competency-based learning as the skills achievement of students at a particular clinical placement as stipulated in the student objectives. Before competency-based learning was introduced it was difficult for educators to track what competencies students were supposed to achieve. This happened because students could choose to learn some skills and ignore other skills. Furthermore teachers too could just teach students skills, they feel comfortable teaching and ignore the rest (Mselle et al., 2022). It is the duty of the clinical educators to make sure midwifery students when going to the clinical area are provided with a document that stipulates the desired competency to be achieved by the end of that allocation (Bweupe et al., 2018). This helps to guide their learning in terms of the competencies they are required to achieve and the assessment they are supposed to undergo at the end of the clinical allocation (Abouzaj, 2019). The competency-based tool also helps to guide educators on which area they should concentrate on when teaching the student and it guides students on which competencies they are supposed to improve on at a particular clinical allocation. In addition it also helps in continuously assessing the student's progress (Abouzaj, 2019). As a result, the availability of students' objectives has proven to facilitate their acquisition of clinical skills in the clinical area.

Evidence in literature have also supported the importance of clinical objectives in students clinical teaching and learning

An institution-based cross-section study that was done in Ethiopia on effective clinical teaching among midwifery educators in public universities found that if students are given clinical objectives in written form their learning is effective (Kitaba et al., 2021). Similarly, a descriptive cross-sectional study that was done on clinical learning experiences of nursing and midwifery students reported that the availability of objectives helps to guide students in their practice (Amoo & Ebu Enyan, 2022). As a result, students achieve the set objectives for that allocation (Amoo & Ebu Enyan, 2022)**.** Furthermore, a survey that was done in the United

States on incentives and barriers to precepting nurse practitioners' students in the clinical area reported similar findings. (Webb et al., 2015). The study found that the availability of students' objectives and other clinical-related information facilitates and motivates them to teach the students in the clinical area (Webb et al., 2015).

However, though students carried their objectives to the clinical area, not all objectives were met as students faced challenges in meeting some of the objectives. The challenges were reported to be due to poor supervision and availability of clinical resources (Kaphagawani & Useh, 2018). The student usually achieves the objectives through observation and demonstration from their educators and clinical nurses. If these people are not there to demonstrate to students or for students to observe them performing a procedure, learning cannot take place though the students are carrying their objectives.

Studies done in some countries have proved that not all objectives students are given at a particular clinical allocation area met. This implies that sometimes students move from simpler level to complex without achieving objectives at the previous level. This affects the achievement of student's competency in the clinical area. Evidence of not achieving clinical competency was reported in a study done in a descriptive cross-sectional study done in Ghana on the clinical learning experience of nursing and midwifery students found students were unable to complete their Objectives (Amoo & Ebu Enyan, 2022). The study found that out 6.2% of the participants were not able to achieve their objectives, while 85% stated that they sometimes achieved their objectives. Furthermore the study reported that 8.1 % of the students confirmed to always have achieved their objectives in the clinical area (Amoo & Ebu Enyan, 2022). Achievement of a student's clinical objectives at a particular allocation indicates that the student has gained the necessary skills and learning has taken place and they can move to another advanced level.

However educator's needs to make sure that the students are achieving their objectives according to set standards .This can be achieved if they are also provided with guidelines on how to achieve the objectives. Studies have mentioned availability of procedure manuals and clinical logbooks as other tools that facilitate student's achievement of objectives. An exploratory qualitative study that was done in Tanzania on experiences of clinical teaching-learning among medical and nursing graduates during internship reported on its Importance (Mselle et al., 2022)**.** The study found that the availability of clinical logbooks guides them on

what to teach students and students are guided on what to achieve at that particular allocation (Mselle et al., 2022). In addition an interpretive case study that was done in Australia on best practices in the clinical facilitation of undergraduate students emphasizes on the availability of policies and procedure manuals in the clinical area. This calls for institutions offering midwifery education to make sure that students and educators going to the clinical area are given objective and procedure manuals to facilitate their leaning (Needham et al., 2016).This also can help to make sure that students are being taught ideal procedures in the clinical area as whoever is teaching them will have a document for reference (Needham et al., 2016).

A partnership between the hospital and the college.

Midwifery education being a practicum-based profession happens in both classroom and clinical areas (Folkvord & Risa, 2023). The classroom area is managed more by the training institutions and the clinical area is managed by the hospitals. This calls for a good relationship and communication between the two institutions to ensure the smooth running of clinical midwifery education. Evidence in the literature indicates that the relationship that exists between the hospital where students are sent and the college helps to facilitate clinical teaching and students' acquisition of competencies (Hashemiparast et al., 2019). This happens because students have a conducive clinical environment and they are free to ask where they don't understand. Furthermore, the conducive environment helps both the instructors from the college and the hospital to be able to help the students attain clinical skills.

Studies done in developed countries has also pointed on the need for good relationship among the two institutions. A systematic qualitative review that was done at Norway University of Stavanger on factors that enhance midwifery students' learning and development of self-efficacy in clinical placement also found similar results (Folkvord & Risa, 2023). The study found that the relationship that exists between students, educators from both college and hospital helps them to find solutions to problems that arise in the clinical area (Folkvord & Risa, 2023). This helps to promote effective clinical learning. Similar results were also found in a qualitative study done in Iran on the development of accreditation standards for midwifery education. The study participants reported that a good relationship between the educational and the clinical is very important as it can facilitate clinical teaching (Abedian et al., 2022). This happens as staff from the clinical area are well experienced in the clinical area and they can effectively teach the students compared to their lectures (Abedian et al., 2022). Furthermore,

when the clinical staff has a good relationship with the educators from the college, they create a good learning environment for students and this facilitates students' acquisition of skills as they learn without fear and they can comfortably ask the clinical nurses for help. In addition the clinical nurses can willingly teach the students (Abedian et al., 2022). The involvement of clinical staff in student teaching helps them to take responsibility for making sure that the students are attaining competency, but if they are not involved, they leave the students to do whatever they want in the clinical area.

In concurring with the above,a qualitative study that was done in Iran on exploring the challenges of clinical education in nursing and strategies to improve it reported that when clinical nurses are involved in student teaching, they also take the responsibility for looking after the students and making sure that their learning is taking place and this help to facilitate their learning (Farzi et al., 2018). A good relationship between the two institutions also facilitates communication on issues about clinical teaching, student assessment, and feedback giving. A qualitative study done in Bangladesh on capacity building of midwifery faculty to implement a 3-year midwifery diploma curriculum: A process of evaluating a mentorship program reported that communication between the clinical sites and the training institutions in terms of their learning outcomes facilitate the students' clinical learning (Erlandsson et al., 2018).

Amod and Mkhize (2023) in their systematic review on supporting midwifery students during clinical practice reported that the relationship between the college educators and clinical educators helps educators from the college to have confidence and ownership of teaching students in the clinical area. Similarly, a qualitative study was done on capacity building of midwifery to implement a 3-year midwifery diploma curriculum in Bangladesh: a process evaluation of the mentorship programme reported that a good relationship between the faculty members and clinical site staff is one of the major facilitating factors in student learning (Erlandsson et al., 2018). This relationship also has helped educators from the college to feel that they are part and parcel of the clinical team and this helps them to comfortably teach the students. Studies has been reporting of the importance of this relationship (Erlandsson et al., 2018). A qualitative study that was done in Taiwan on clinical nursing instructors' perceived challenges in clinical teaching reported that clinical staff need to take instructors as colleagues not as strangers in the clinical area (Yang & Chao, 2018). . This help the educators to be mentoring each other and teach the students (Yang & Chao, 2018).

Furthermore a good relationship between the educators from both institutions helps in the continuity of the duty of teaching and guiding of students in the absence of educators from the college. To concur with above a study done in India on challenges faced by student nurses and midwives in the clinical learning environment reported that if staff in the clinical area have a positive attitude towards students learning it facilitates their acquisition of competency (Panda et al., 2021).In addition , a qualitative study that was done in Iran on exploring the challenges of clinical education in nursing and strategies to improve it reported that good relationship between the clinical and training institutions facilitates students' clinical teaching (Farzi et al., 2018). This happens because good relationship creates a conducive environment for students' learning as they learn without fear and blame (Farzi et al., 2018).

Studies done in Africa has also acknowledged the significance of good relationship between the two educators. A systematic scoping review that was done at the South African University of KwaZulu-Natal on supporting midwifery students during clinical practice reported that a good relationship between the two institutions promotes effective clinical teaching (Amod & Mkhize, 2023).

Other studies also noted that if educators from the college are working with clinical nurses, their morale and confidence to teach the students are boosted as a result student get supported fully in the clinical area in the absence of educators from the training institutions (Amod & Mkhize, 2023). Usually educators from the hospital regards teaching students in the practical area as an extra duty and most of the times they are afraid to teach the students to avoid giving them wrong information. However when they work together with their colleagues from the college, they are able to be mentored and they become confidence in teaching the student even in the absence of their fellow educators from the college.

Studies done in Malawi has also reported on the significance of the good relationship among these educators. A study done on enhancing nursing education via academic clinical partnership reviewed that the interaction between the academia and hospital can help to reduce the theory-practice gap (Bvumbwe, 2016). This happened as educators are able to discuss the learning objectives before the student's placement thereby promoting effective clinical teaching (Bvumbwe, 2016). Mostly the academic area is good at theory since they are involved in teaching the students in the classroom while those based in the hospital are always doing the

hands-on own. As a result, when they are working together, they complement each other and this helps the students to attain the skills quickly.

Availability of resources

The availability of resources in the clinical area helps educators to be able to demonstrate skills to the midwifery educators and for the students also to be able to practice the skills (Malwela et al., 2017). This has made the availability of resources one of the facilitating factors in student clinical teaching. According to the International Confederation of Midwives global standards which stipulates that for effective clinical teaching to take place educators should have material resources, including physical space in the clinical area for students' effective clinical teaching and learning (ICM, 2021). Similarly, findings from a systematic review study that was done in Sub-Saharan Africa on barriers and facilitators of the effectiveness of the clinical pedagogical supervision of nursing and obstetric students found that the availability of materials and infrastructure to be used for students" clinical supervisors can facilitate clinical teaching (Talato & Ngangue, 2022). When resources are available educators can teach students according to what they learned in class but when resources are not there, they use improvision and shortcuts. As a result, students find it hard to link the theory learned in class and the practice.

A study that was done in Iran on the development of accreditation standards for midwifery clinical education reported that the availability of resources such as well-equipped skills laboratories is a facilitating factor in student clinical teaching as it helps students to practice and gain confidence before they touch real patients (Abedian et al., 2022). In addition, a qualitative study done in Congo on barriers to delivering quality midwifery education an interview with educators and clinical preceptors reported that educators stated that the availability of reference material and low and high-fidelity models in the skills laboratories facilitate their clinical teaching as they can be able to demonstrate to student and able to refer when they are stuck (Bogren, et al., 2021).

Competency of the clinical educators

Clinical educators' competence is very crucial in student learning as it determines the quality of students to be produced (Salminen et al., 2021; Shayan et al., 2019). Clinical educators have the role of helping students translate theory knowledge into practical knowledge (Malwela et al., 2016). To achieve this educator, demonstrate, teach, supervise, assess, and evaluate

students in the clinical area (Kaphagawani & Useh, 2018). In a cross-section study design done in Finland on the competence of nurse educators and graduating students, results found that the competence of nurse educators is related to the quality of the graduates the institutions can produce (Salminen et al., 2021). However, most clinical educators' competency is not measured on the performance of their procedure in the clinical area but on the quantity of research papers being written.

In a qualitative study that was done in Iran on challenges of clinical education in midwifery and strategies to improve it instructors reported that most of the educators are busy with writing papers as it is a measure of their performance instead of improving the clinical skills (Shayan et al., 2019). The support that educators give to students through their competency enables them to practice with confidence when they graduate from training institutions. Even clinical instructor themselves recognizes competence as a characteristic of an effective midwifery instructor. A qualitative study done on clinical nurses' opinions on the education of nursing students reported that educators who have the required knowledge, skills, and attitudes help students narrow their theory into practical gaps (Gül et al., 2022). In addition, the educator's knowledge should also be based on up-to-date information. Studies are being done and new information is being added so educators need to consciously update themselves. A study that was done in Iran on the development of accreditation standards for midwifery clinical education reported that clinical instructors need to have current evidence-based skills to be able to teach the students (Abedian et al., 2022).

In addition, an institutional-based cross-sectional study done in Ethiopia on knowledge and attitude toward nursing clinical preceptorship among Ethiopian nurse educators reported that 71% of the participants mentioned that knowledge is one of the requirements for someone to be a preceptor (Teferra & Mengistu, 2017). Furthermore, a qualitative study done in Arabia on clinical nursing teaching in Saudi Arabia and challenges and suggested solutions reported that an educator needs to have knowledge and skills of the particular course he would like to teach (Al Mutair, 2015). Similarly, a cross-sectional study done in Egypt on undergraduate nursing students and clinical instructors' perception of the characteristics of effective clinical instructors at the faculty of nursing, at Cairo University reported that the ability of the instructors to teach students is one of the major factors perceived by both students and faculty as a facilitating factor for effective clinical teaching (Hassan & Elsharkawy,2017). Furthermore, a Phenomenological study that was done in Malawi on nursing and midwifery

students' perspectives of faculty caring behaviour reported that students were having effective clinical teaching when their educators supervised and demonstrated skills to them in the clinical area (Chipeta et al., 2022).

Student's willingness to learn

Students need to have a positive attitude and be eager to learn in the practical area. Educators should be available to teach the students in the clinical area but if they are not prepared to learn they will take time to capture the skills. A study that was done in Australia on factors influencing nursing students learning during clinical placement reported that student readiness to learn facilitates their acquisition of skills in the clinical area as they have positive attitudes and are willing to participate in patient care as a result of learning can easily take place (McTier et al., 2023). Similarly results from a descriptive study done in Turkey on identifying hinders to clinical nurses' participation in the training of nursing students reported that 48% of them failed to teach students in the clinical area because students lacked interest and did not make any effort to learn some procedures (Sahan & Guven, 2020. A clinical area it's an area where the main purpose is providing patient care. Training institutions take the opportunity of the presence of patients in the clinical area to train their students. As a result, students need to show their willingness to learn for staff nurses to teach them. If students do not show interest the qualified nurses will concentrate on their role of caring for patients only.

Furthermore, a qualitative study that was done in Iran on exploring challenges of clinical education in nursing and strategies to improve it reported that student readiness and willingness to learn facilitate clinical Teaching (Mohebi et al., 2018). This helps students to have the confidence to practice procedures when they are available but when they are not willing their confidence is low as a result learning does not take place (Mohebi et al., 2018). The willingness of students to learn in the practical area determines their professional behaviour. Students who are willing to learn will be in the clinical area in good time and they are always knowledgeable, they usually consult when they don't understand. This helps them to gain the required skills and also motivates instructors and nurses to teach them. A study was done in the same country Iran on the state of clinical education and factors affecting effective clinical education from the point of view of nursing and midwifery students reported that the individual characteristics of the students determine the effectiveness of their clinical learning and have an impact on student knowledge acquisition (Asadi et al., 2023).

In addition, a study done in India on student perceptions of clinical instructor characteristics affecting clinical experiences reported that knowledge of the instructor and their availability in the clinical area are the main characteristics they need in their instructors (Reising et al., 2018). Furthermore, a qualitative study that was done at Addis Ababa University on nursing students' challenges towards the clinical learning environment at the School of nursing and midwifery reported that when students are not prepared for clinical practice they lose interest and motivation to practice procedures in the clinical area (Berhe & Gebretensaye, 2021). Students tend to be unready for clinical areas due to poor theoretical preparation, low interest and motivation in the profession, and also poor relationships with the instructors (Berhe & Gebretensaye, 2021).

Similarly, a study done in Rwanda on clinical supervision of nursing students: challenges and alternatives reported that students need to be well prepared and ready for clinical practice at their institutions before they join the real clinical environmental (Habimana et al., 2016). As educators have no time to teach students who are blank both in theory and practical. In addition, a qualitative study done in Malawi on factors affecting the acquisition of psychomotor clinical skills by student nurses and midwives in the Christian Association of Malawi Nursing College reported students' motivation to learn in the clinical area as a facilitating factor (Mwale & Kalawa, 2016) . Students who are motivated to learn always take responsibility to make sure they have grabbed a skill (Mwale & Kalawa, 2016). However, most studies have been reporting of unreadiness of students in the clinical area. Qualitative study that was done in Iran on exploring the challenges of clinical education in nursing and strategies to improve it participants reported that some students are not well prepared theoretically, in the skills lab and they lack the confidence to work in the clinical area and this affects the way clinical educators can deliver the competency to them (Farzi et al., 2018).

2.4 Barriers faced by clinical educators in the clinical area

Midwifery clinical education is meeting with challenges that affect the quality of graduates. We would like to look at studies that have been reporting midwifery challenges from educators.

Shortages of Midwifery Clinical Educators

Midwifery educators are key in the production of competent midwives and graduates from midwifery training institutions. Competent midwives are significant to maternal and child

health as they can provide 90% of sexual and reproductive health services (State of midwifery report, 2021). To produce competent midwives' institutions, need to have enough midwifery educators both in the classroom and clinical area. However, evidence in the literature indicates that the number of Midwifery clinical instructors globally is not enough to meet the needs of midwifery education as a result instructors are subjected to work overload (Gazza, 2019). In addition, the number of midwifery educators is very crucial as it determines the amount of time educators spend with students when they go to the clinical area. Usually, students go to the clinical area as novices, they depend on the instructors to teach them skills in the clinical area. When their numbers are not enough students find it hard to learn the skills on their own or with limited support.

The shortage of midwifery educators is critical in developing countries as compared to developed countries because the number of midwives in developing countries is not enough to meet the population demand. As a result, developing countries are still increasing the student intake regardless of the number of educators. However, developed countries, are experiencing a shortage of educators due to an increase in student intake which is not proportional to the number of educators leaving the faculty. A study done in the United States of America reported that they are experiencing a shortage of educators that made them leave 56397 qualified applicants in their nursing schools in the year 2017 (Gazza, 2019). Evidence in the literature reports that more midwifery educators in developed countries are reaching the retirement age and new midwife graduates pursuing other pathways due to low salaries in the faculty career (Royal College of Midwives State of Midwifery Education, 2023).

Students are pursuing midwifery programming as a pathway to other health-related programs other than specializing in midwifery education as a result the number of educators teaching midwifery students keeps on decreasing (Royal College of Midwives, 2023). The State of Midwifery Report 2021 reported that 91% of the countries that took part in the study offered midwifery programs at the bachelor level but only 2/3 of the educators in their institutions are midwives themselves according to international standards (International Confederation Of Midwives, World Health Organisation,& United National Population Fund,2021). The shortage of educators in the training institutions is forcing most of the educators who are near retirement to retire early as they find it hard to cope with the pressure of work. The State of Midwifery Report 2023 found that in the United Kingdom, almost 23% of educators were ready to leave the institutions of teaching due to a shortage in their numbers that has subjected them

to the pressure of work (Stern et al., 2020). The shortage of midwife educators has both affected the clinical area and the classroom teaching but the clinical area is much affected as educators tend to concentrate on classroom teaching leaving the clinical area in the hands of qualified midwives.

In a cross-sectional exploratory descriptive qualitative study that was done among 145 midwives using focused group discussion and one-to-one interviews from 61 countries on Knowledge and use of the ICM global standards for midwifery, education participants reported a shortage of qualified midwifery educators, both for the classroom and the clinical area (Barger et al., 2019). Similar results on the shortage of educators were also reported in a two-way workshop that was conducted by the International Confederation of Midwives on factors affecting the quality of midwifery students' learning in the workplace (Bharj & Embo, 2018). As a result, student supervision in the clinical area is limited as educators have work overload and also due to financial constraints there are too poor work logistics for them to be able to go to the clinical area and spend time with students due to their numbers (Bharj & Embo, 2018). This has affected the quality of students learning as they usually spend time with ward nurses who are also subjected to workload as a result they do not have time for the student. Studies have reported that educators prefer classroom teaching compared to clinical teaching when they occur at the same time. This leaves the students in the clinical area with ward nurses, who usually concentrate on patients other than students as a result students do not acquire the necessary skills (Hill & Abhayasinghe, 2022).

Literature in low and middle-income countries has also been reporting of shortage of midwifery educators as one of the challenges faced by midwifery education. The State of the World's Midwifery 2022: East and Southern Africa also reported that midwifery education in the region is faced with an inadequate number of educators which affects the quality of midwifery education (UNFPA, 2022). The report further stated that the quantity of midwives is significant if their quality is also good. An adequate number of educators has a direct impact on the acquisition of skills among midwifery students. Similar results on the shortage of midwifery educators were reported in a qualitative study done in Iran at Shahid Beheshti University of Medical Sciences on exploring the midwifery training challenges in Iran from the viewpoint of faculty members and graduates of this field (Ahmad et al, 2016). The participants in the study reported that the number of educators at the institutions is not enough as a result the quality of students' learning is affected (Ahmad et al,2016).This results in educators failing to supervise

and support students in the clinical area. In addition, a qualitative study done in Bangladesh on social economic, and professional barriers influencing midwives' realities among educators preparing midwifery students for clinical reality reported facing a shortage of clinical educators, mentors, and preceptors in, the clinical area leaving students to teach skills themselves (Byrskog et al., 2019).

Even students themselves have been complaining about the shortage of midwife educators in the clinical area and this has greatly affected the attainment of knowledge and skills as they have little support. A qualitative study done in Botswana on clinical experiences of nursing students at the selected institute of health sciences reported that students lacked support from their lectures and when the lectures came they just shouted them in the presence of Patients (Rajeswaran, 2017). As a result, students learn with fear and they lack the confidence to practice the skills. However, educators complained that sometimes they give feedback to students in front of patients due to the lack of private space for learning in the clinical area which sometimes makes students lose confidence (Hill & Abhayasinghe, 2022). Similarly, a study that was done in Tanzania on factors affecting performance in clinical practice among preservice diploma nursing students reported that the shortage of educators was a major factor that affected the students in the clinical area (Gemuhay et al., 2019). The study reported that almost 60% of the participants mentioned the shortage of educators as a major factor causing students not to have effective clinical teaching (Gemuhay et al., 2019). In addition, in a descriptive qualitative study that was done in Turkey on undergraduate nursing students' experience related to their clinical learning process, students reported that their supervisees rarely supervise them in the clinical area and they have time to knock off earlier without their notice (Arkan et al., 2018). Furthermore, a qualitative study done in Zambia on factors influencing student nurses' clinical learning during their clinical practice at Rusangu University in Monze reported that 27% of the participants experienced average support in the clinical area due to a lack of midwifery educators (Kaliyangile, 2020). .

In Malawi, the shortage of midwifery instructors is also a big challenge. In a concurrent triangulation mixed methods research design that was conducted among 126 nursing and midwifery students on experiences and perceptions of their clinical learning environment in Malawi, reported a lack of clinical accompaniment due to a shortage of clinical instructors in the clinical area which negatively affects the acquisition of their skills (Mbakaya et al., 2020). Another study done in the country on registered nurses' experiences with clinical teaching

environments reported similar findings. The study found that the country has a shortage of educators as a result student support in the clinical area is limited, and students are being observed coming to the clinical area without educator accompaniment (Bvumbwe et al., 2015). This is against the country nurses and midwives' guidelines which state that the midwifery faculty should be adequate to be able to prudence students who will be meeting the Nurses and Midwifery Council standards for practice (Nurses and Midwives Council of Malawi, 2021).

High student ratios

Global demand for midwifery services has increased, and countries have responded by instructing training institutions to increase their intake to meet population demand. The increased number of students has increased the ratio of students to educators in both classroom and clinical teaching (Bweupe et al., 2018). This has put pressure on both the educators in the college and the clinic staff who are already facing shortages in their numbers (Habimana et al., 2016). The State of Midwifery Report 2023 reported that in the past 13 years, the United Kingdom has increased its students by 68% which does not match the number of educators available (Stern et al., 2020). Similarly a study that was done at the University of British Columbia and Ontario on midwifery education in Canada reported that the number of midwifery programs has increased by 100% from 2002 to 2012 in British Columbia while in Ontario it has increased by 400% from 1993 to 2015 (Butler et al., 2016). Furthermore, the study found that the number of places in the midwifery program in British Columbia increased from 10 in 2002, to 20 in 2012 while in Ontario, the midwifery program has expanded from 20 entrants in 1993 to 90 in 2015. This has an impact as the number of educators is not enough and besides clinical teaching, midwifery educators are also involved in other academic responsibilities (Butler et al., 2016).

WHO in its paper on the guide to nursing and midwifery education standards recommended a ratio of 1:8 in the clinical area and 1:15 in the skills laboratory (World health organization, 2015). This has not been the case in most countries. Barger et al., (2019) in a cross-sectional exploratory descriptive qualitative study that was done among 145 midwives using focused group discussion and one-to-one interviews from 61 countries on knowledge and use of the International Confederation of Midwives global standards reported noncompliance of most institutions in meeting the regulatory stipulated standard ratio in clinical and theory midwifery education.

Additionally, a discussion paper based on an exemplary done in Thailand among midwifery educators in nine health science schools in Laos on looking toward 2030: Strengthening midwifery education through regional partnerships reported that educators have having high student ratio of 1:10 in the clinical area which affects the quality of clinical education offered to them (Srisaeng &Upvall,2019).The high student ratios have also put pressure on the resources to be used in teaching the students. In 2018-2019, the World Health Organization conducted a survey on global midwifery educators in its six regions, excluding Europe. The survey found that educators have inadequate resources to use in classrooms, clinical sites, and skill laboratories. Similarly, in a qualitative study that was done in Turkey on difficulties in nursing clinical education: perspectives of nurse educators reported that 65% of the study participants had challenges with the number of students available in the clinical Area (Dağ et al., 2019). The study further reported that in a space of 20 years from 1996 to 2016 the study reported that the student numbers increased from 644 to 14048 with a student ratio of 1:30 in the clinical area which is far away from the WHO stipulated ratio (Dağ et al., 2019). This increase in student ratio has also congested the clinical area as the clinical Sites have not been increased besides increasing the number of students.

Furthermore, a study that was done in Rwanda on clinical supervision of nursing students: challenges and alternatives reported that educators complained of high student rations in the clinical area making it hard for the educators to fully teach and supervise them in the clinical area (Habimana et al., 2016). Similarly, a descriptive study done in Turkey on identifying hinders to clinical nurses to participation in the training of nursing students reported that 61% of the clinical nurses failed to teach the students in the clinical area due to students' high rations in their departments (Sahan & Guven, 2020). Since there are more students to be taught educators also workload increases as a result educators prefer to use group teaching methods rather than individual ones. A study done in Ethiopia on trainers' perception of the learning environment and student competency: a qualitative investigation of midwifery and anaesthesia training programs reported that high student numbers subjected the instructors to work overload and congestion in the clinical sites (Kibwana et al., 2017). Sub-Saharan Africa has also been affected by the high student ratios.

A qualitative study done in South Africa Addis Ababa on nursing students' challenges towards the clinical learning environment at the schools of nursing and midwifery reported congestion due to a large number of students from both private and public universities (Berhe &

Gebretensaye, 2021).Similarly, a qualitative exploratory descriptive contextual design study that was done in South Africa on the effects of limited midwifery clinical education and practice standardization of student preparedness reported that a large number of students which is not proportional to the number of midwifery educators have affected the quality of midwifery newly graduating students (Vuso & James, 2017). In a systematic review that was done in sub-Saharan Africa on barriers and facilitators of the effectiveness of clinical pedagogical supervision of nursing and obstetric students, results stated that students have few patients in the clinical area as a result they scramble for patients and students fail to achieve the set competence (Talato & Ngangue, 2022). This has resulted in the use of skills laboratory for students learning however others have complained that on top of the skills laboratory, they still need to have contact with real patients. A qualitative study was done in South Africa on the experiences of nurse educators regarding the use of the skills laboratory at the school of nursing in the free state province stated that the current increase in the number of students has become a barrier as it has affected the existing clinical sites and institutions are resulting in the use of skills laboratory (Madlala & Mvandaba, 2023). Kitaba et al, (2019) also reported that 42% of educators in the study reported working in clinical sites that are congested with their students and other medical disciplines.

In addition, a qualitative study done in South Africa on nursing students' challenges towards the clinical learning environment at the School of Nursing and Midwifery in Addis Ababa University reported an increase of students in the clinical area from other disciplines that hinders nursing and midwifery students learning (Berhe & Gebretensaye, 2021).The large number of students in the clinical area limits their exposure to patient care as a result their clinical competency attainment is reduced. Dawson et al (2015) in its study reported that students had poor clinical supervision due to their large numbers in the clinical area against clinical staff who were responsible for teaching them. Another study done on incentives and barriers to precepting nurse practitioner students reported that the high number of students and congestion in the clinical area were some of the major barriers they experienced in precepting students (Webb et al., 2015).This has caused students to have reduced opportunities to practice hands-on skills on patients due to the increased number of students as a result students are reported to be reaching senior classes with gaps in skills competency which reduces their confidence to practice senior competencies (Ahmadi et al., 2018).The congestion of students has been seen from both midwifery students and medical students who congest the labour ward

in looking for cases hence reducing the opportunities for midwifery students (Abraha et al., 2023; Bharj & Embo, 2018).

In addition, a qualitative study that was done at Addis Ababa University on nursing students' challenges towards the clinical learning environment at the School of Nursing and Midwifery reported that students were having poor clinical experience due to congestion in the clinical sites due to a large number of students (Berhe & Gebretensaye, 2021).

Furthermore a qualitative study done in Malawi on perspectives of teaching and learning in clinical skills laboratories in the developing world reported that educators have a large number of students leading to high student rations which makes it difficult for them to effectively teach them in the skills lab and watch each student doing return demonstration to make sure learning has taken place (Msosa et al., 2022). Malawi as a country with a high maternal mortality ratio and shortage of midwives also increased the student intake to meet its population demand. Studies indicate that Malawi increased its student intake by 119% over the past years while instructors have only increased by 26 %. At the moment no research has been done to look into what clinical educators are going through with these high intakes. A qualitative study design that was done in Malawi on a middle-range model for improving the quality of nursing education results indicates that the increased number of students is affecting the quality of midwifery education (Bvumbwe & Mtshali, 2018).

Poor relationship with the ward nurses and clinicians

Midwifery instructors' relationships with ward nurses are difficult because instructors are perceived as outsiders in the clinical area. In a descriptive study done among 199 nurse academicians in Turkey, the Eastern Mediterranean University Nursing Department on Difficulties in Clinical Nursing Education found that 30% of instructors had encountered difficulties with healthcare team members (Kitaba et al., 2021). In addition, a descriptive qualitative study was done among 35 nursing students and 5 clinical educators in Iran on the challenges of clinical education in nursing and strategies to improve reported that students and instructors were left unattended in the ward, and nurses could come and do their duties without acknowledging the presence of the students and their instructors (Mohebi et al., 2018). This has an impact on student learning as in the absence of educators from the college student's acquisition of skills is compromised.

A qualitative study done in Ethiopia on trainers' perception of the learning environment and student competency found that 90% of the participants complained of the poor relationship between academic and clinical sites (Kibwana et al., 2017). This has caused educators to find it hard to match the number of students in an allocation to the cases available and this limited student experiences (Kibwana et al., 2017). The poor relationships between the two sites have also resulted in poor communication about issues to do with clinical teaching. Midwifery educators from the clinical; side also complained that they are never communicated with when students are coming to the clinical area. Students come with objectives and guidelines which were never discussed with them before the students have arrived at the clinical area or on the first day of their orientation (Kibwana et al., 2017).

Furthermore, a qualitative study done in Ghana on assessing challenges of clinical education in a baccalaureate nursing program reported that participants complained of a lack of collaboration between the academic staff and clinical sites which affects the transition of students' theoretical knowledge to practical (Asirifi et al., 2017). As a result, what students learn in theory it's not exactly what they find in the clinical area as mostly educators from clinical sites teach students their ways which are full of shortcuts and improvision but if there is a good relationship they could be mentoring each other (Asirifi et al., 2017). Ward nurses in Malawi are subjected to high work overload due to a shortage of staff. Their relationship with midwifery clinical instructors is uncertain and this study would like to hear from instructors if they encounter any challenges with the ward nurses.

S*hortage of resources*

Resources are one of the key factor in student’s attainment of clinical competency. Educators are able to use to teach the students and students are able to practice what they are taught. Lack of resources in the clinical area hinders both educators and students to practice their roles.

Clinical practice allows students to practice what they learned in class in a real environment. The shortage of resources in the clinical area hinders students' learning and educators' clinical teaching (Byrskog et al., 2019). Studies have reported that underfunding of midwifery education globally has been the main reason for the shortage of resources in clinical areas. Midwifery education is being underfunded besides evidence indicating that investing in midwifery education can improve the global challenge of increased maternal mortality rate by improving the skills of midwives who are key in providing sexual and reproductive health care

services (Smith et al., 2023). Due to underfunding midwifery education is reported in studies to be faced with a shortage of resources and infrastructure to be used in teaching the students (Filby et al., 2016; Smith et al., 2023). This limits the exposure of students to various procedures as a result their skills are limited. This inadequate of resources have also being pointed out in various studies. The World State of Midwifery 2021 reported that midwifery education in the region is faced with inadequate resources and infrastructure International Confederation Of Midwives, World Health organisation, & United National Population Fund 2021). Furthermore, a survey that was done from 2018 to 2019 by the World Health Organization among its 6 regions except Europe reported that 100 % of the participants reported a shortage of resources and inadequate infrastructure as one of the challenges they are experiencing in midwifery education (International Confederation Of Midwives, World Health Organisation,& United National Population Fund, 2021).

The shortage of resources has been reported in different countries regarding of their financial abilities, only the extent of the problem differs. A qualitative study done in Iran on challenges of clinical education in midwifery and strategies to improve it reported that both students and instructors admit to facing a shortage of resources in the clinical area that hinders their teaching and student practice (Shayan et al., 2019). In addition, a descriptive study done in Turkey on identifying hindrances to clinical nurses' participation in the training of nursing students reported that 36% of the nurses failed to teach the students in the clinical area due to inadequate infrastructure (Sahan & Guven, 2021). Educators in the clinical area sometimes need a separate room to demonstrate skills to the patient before they do it to the real patient. Most of the clinical sites lack these areas.

Studies done in Low and middle-income countries have also reported of shortage of resources to be used in teaching students in these regions. A systematic review that was done on what prevents quality midwifery care, and systematic mapping of barriers in low and -middle-income countries from a provider perspective reported that out of 82 professional barriers identified in the paper, 72 barriers were professional with underfunding of midwifery education in low and middle countries (Filby et al., 2016). Similarly, a study that was done in India on facilitators and barriers for clinical preceptors in midwifery education: A review of the published literature reported that lack of resources was one of the major barriers that studies reported to be faced by educators (Upadhyaya et al., 2021).

Sub-Saharan African countries are also much affected by the shortage of resources in their midwifery training institutions. A qualitative study done in the Democratic Republic of Congo on barriers to delivering quality midwifery education programs among educators and students reported that the education is subjected to inadequate equipment and resources to use for student teaching and learning (Bogren et al., 2021). A few available educators lack knowledge in clinical teaching due to inadequate experience as those who are experienced have moved out to other countries on sabbatical leaves (Ahmady & Sadati, 2016).

In addition, participants from a qualitative study done in Ghana on assessing the challenges of clinical education in a baccalaureate nursing program reported that shortage of resources was a major problem that affected both the educator's clinical teaching and students' learning and though they opted to force the students bring some of the basic equipment such as gloves and vital sign materials it was also inflicting on students financial problems which further put stress on them and affect their learning (Asirifi et al., 2017). Furthermore, a systematic review and a meta-synthesis on challenges faced by student nurses and midwives in clinical learning environments reported that they lack resources to use in clinical teaching as a result they improvise a lot (Panda et al., 2021).

In addition, a qualitative exploratory descriptive study that was done in South Africa on the availability of resources as a factor influencing the integration of midwifery theory with clinical practice at training institutions of Vhembe district among educators and midwives found similar results (Malwela et al., 2017). Both participants complained of a shortage of medical equipment and poor infrastructure to use in teaching students and for students to practice what they have learned from the educators. The study further reported that if the equipment is available, they are incomplete as a result educators fail to teach the students how ideal things instead, they use shortcuts. (Malwela et al., 2017).

African countries due to their already exsting financial challenge have also been much affected with the shortage of resources. This is very unfortunate as the countries has also high maternal mortality rate. In a study done on the assessment of the quality and relevance of curricula development in health training institutions in Kenya reported that most of the institutions lack resources and infrastructure to be used for students learning and teaching (Mumbo & Kinaro, 2015). Even studies done on assessing the clinical environment according to students' perspectives have also mentioned a lack of resources as a barrier to their learning (Hill &

Abhayasinghe, 2022, Mukamana et al., 2015). In a qualitative study that was done in Sri Lanka on factors that influence the effectiveness of clinical supervision for students' nurses reported that the students experienced poor supervision due to lack of resources in the clinical area. Educators can be available in the clinical area to teach students if resources are not their learning will not take. Educators in the clinical area are supposed to demonstrate, teach, and observe different skills to students but if resources are not available educators will not be able to teach the students as a result the theory-practical gap will be wider (Hill & Abhayasinghe, 2022).

Another qualitative study done in Rwanda on nursing and midwifery education: telling a Story reported that the shortage of midwifery educators and clinical nurses to teach the students was the major challenge reported to be faced by the educational system (Mukamana et al., 2015). Similarly, a study done in Malawi on registered nurses' experiences with the clinical teaching environment reported a lack of resources for student clinical teaching as a major factor affecting their clinical teaching environment (Bvumbwe et al., 2015). This study would like to understand midwifery educators' experience in Malawi with the shortage of resources.

Inadequate professional development programs

Professional development is very crucial to midwifery faculty as it helps to update their skills and also helps them to be aware of new evidence-based information (World Health Organisation, 2016). However, evidence in the literature reports inadequate opportunities for educators to professional development. A review of literature that was done in Australia on building midwifery educator capacity in teaching in low and middle-income countries reported that educators had inadequate knowledge due to a lack of professional development programs (West et al., 2016). As a result, midwifery clinical instructors are teaching students using the knowledge they learned in school, and also most of them show little interest in going to the clinical area. In line with this, a survey of educators conducted by the World Health Organization in its five regions reported that educators lack clinical skills, as a result, they express a preference for theory over clinical teaching (World Health Organization, 2017).

Educators in sub-Saharan countries have also similar experiences. A key study done in nine NEPI sub-Saharan supported countries on Innovations in Nursing and Midwifery Education reported that educators have less opportunity for continuous professional development (Middleton et al., 2014). This affects the quality of knowledge they have as things keep on

changing hence a need to be updated so that students are being taught up-to-date information (Middleton et al., 2014). Most professional development training is organized by non-governmental organizations and their interest is more focused on bedside midwives. As a result, midwifery educators are left behind in new updates, they lack knowledge (Shikuku et al., 2024). A study that was done in Kenya on improving midwifery educators' capacity to teach emergency obstetrics and newborns in its university reported that 91% of the participants stayed for two years since the last time they had similar training (Shikuku et al., 2022). This makes educators lack this knowledge as a result they fail to provide up-to-date information to the students and new graduates who are entering the healthcare system. Even students have also complained that educators rarely use new innovative models of teaching them in the clinical area because they have not been trained in those methods.

A quantitative descriptive study done in South Africa on nursing students' perception of the clinical learning environment reported that 33% of the students did not observe educators employing new ideas in the clinical area and 44% of educators were teaching them using the old methods (Jagannath et al., 2022). Educators blame the Ministry of Health for not including them in most of the in-service training happening in clinical settings. In a phenomenological study that was done in Ethiopia on nurse educators clinical skill competence study results reported that educators in the training institutions were not included in most of the training happening in the clinical area as a result they lack new evidence-based information in teaching the students (Asegid et al., 2023) This also has contributed to a lack of knowledge among the educators that studies have been reported in studies. An inductive exploratory qualitative study conducted in the Democratic Republic of Congo on barriers to delivering quality midwifery education programs among 85 instructors reported that one of the reasons for the lack of skills has been the lack of continuous professional development among the instructors in the system (Bogren et al., 2021). Midwifery educators need to have current evidence-based up-to-date skills both in theory and practical to be able to transfer them to students (Shikuku et al., 2024).

Use of students as staff

Students are allocated to the clinical area to implement what they learn in class into practice. However, due to the shortage of midwives in the clinical sites qualified nurses treat students as a pair of hands, as a result, students are subjected to midwives' routine work instead of concentrating on their clinical objectives (Malwela et al., 2016). This has impacted their

competency achievement. In qualitative phenomenological study design that was done in India on challenges faced by midwifery facilitators in providing midwifery education reported that an inadequate midwife workforce in the clinical area has made students work as staff and this has impacted their objective achievement (Mahadalkar et al., 2020).

Similarly in other studies, students have complained of the attitude of other qualified midwives when they have seen students. A qualitative study done in South Africa on the experiences of undergraduate nursing students during clinical practice at health facilities in western Cape Town reported that students were left alone to do all their work by nurses in the ward as nurses were telling them that they could not work while they have students it's their time to rest (Fadana & Vember, 2021). A similarly qualitative study done on the clinical experiences of nursing students at a selected institute of health in Botswana reported that qualified nurses were leaving their role of providing direct patient care to students as a result students failed to achieve their clinical objectives as they were overburdened with the routine nursing work (Rajeswaran, 2017). Furthermore, a qualitative study done in Taiwan on clinical nursing instructors perceived challenges in clinical teaching complained that students were being given roles by ward nurse managers the same as qualified due to a shortage of ward nurses as a result they failed to concentrate on their objectives (Yang & Chao,2017). In addition, a qualitative study done in Zambia on clinical supervision of midwifery students at the university teaching Hospital School of Nursing and Midwifery in Lusaka reported that they stay in the clinical area not to learn but to accomplish the roles that are given by qualified staff (Bweupe,2018).

Inadequate competency among clinical facilitators

Students in the clinical area are supposed to be taught by professional educators both from the clinical area and the clinical sites. However, the presence of these educators in the clinical area is not enough as a result students are taught by whoever is available. In addition, those who have the required competencies have no time to spend in the clinical area as a result they lose most of their skills which leads to a lack of confidence to teach students as a result they prefer classroom teaching (Mahadalkar et al., 2020). In a study done in the democratic republic of Congo on barriers to delivering quality midwifery education programs: an interview study with educators and preceptors reported that 10 out of 22 educators had no pedagogical skills and no chances of continuous professional development (Bogren et al., 2021). Educators also are

reported to lack formal qualifications in teaching students as a result they lack pedagogical skills for handling midwifery students.

An exploratory qualitative study that was done in South Africa among experiences and mentoring needs of novice nurse educators at a public nursing college in the Eastern Cape reported that novice nurse educators were not competent to teach the students as they lacked orientation in teaching methodology and how to handle students in the clinical area (Sodidi & Jardien-Baboo, 2020). Most of these novice educators are registered nurses who usually spend most of their time with the students in the clinical area. A cross-section descriptive study that was done in southeastern Nigeria on factors hindering the clinical training of students in selected nursing training institutions reported that 45% of students were supervised by ward nurses while 21% were supervised by their instructors from the college (Anarado et al., 2016). Even students further complained that whatever they learned in the classroom it's different from what they found in the clinical area and they found it had to transfer the theory knowledge into practice (Mwale & Kalawa, 2016). In some studies, it was noted that the qualifications of the instructors are the same or even lower than the students they are teaching. In a mixed method study done in the democratic republic of Congo on midwifery education, regulation and association: current state and challenges reported that instructors were unable to teach students due to a lack of knowledge in teaching methodology and also most of them had similar education level to the students they were teaching (Bogren et al., 2020). Some were reported performing procedures in a wrong way different from the guidelines and what the students learned in class (Yang & Chao, 2018). Students have even complained that some educators fail to perform the procedure when students ask them.

In a descriptive qualitative study done in South Africa on undergraduate nursing students' experience of clinical supervision students complained that when they asked their supervisor to demonstrate some procedures to them, they failed (Donough & Van der Heever, 2018). Some midwives deliberately denied the responsibility of teaching students for the fear of being known to lack clinical skills they always leave the role of teaching students to their; lecture (Malwela et al., 2016). An exploratory qualitative study that was done in South Africa on the effects of limited midwifery clinical education and practice standardization of student preparedness reported that educators from the college complained that what they taught in class was different to what students learn in class as qualified staff do not want to follow the guidelines as the result students do not get the ideal competencies (Vuso & James, 2017).

In addition, a cross-section study that was done in Iran among 163 nursing educators and students on investigating the challenges of clinical education from the viewpoint of nursing educators and students reported that 78% of educators lack evidence-based knowledge and experience from the viewpoint of educators themselves (Hakim, 2023). . The students found that 82% of the educators have inadequate skills in teaching the students (Hakim, 2023). Even students in other studies have complained about the theory-practice gap in the clinical area as what they learn in class is different from what they find in the clinical area. A qualitative study that was done in Iran on barriers to practical learning among nursing students reported that students complained that ward nurses who were teaching them were not following what they learned in class. This has caused students to fail to relate what they learned theoretically and what they found in the clinical area (Jahanpour et al., 2016).

Similarly, an explorative qualitative study done on challenges in neonatal nursing clinical teaching to nurse midwife technicians in Malawi reported that qualified staff fail to demonstrate skills correctly to the students as a result the students learn incorrect things (Phuma-ngaiyaye et al., 2017).

2.5 Strategies used by clinical educators to overcome the challenges

Educators have been using different strategies to overcome the challenges they are facing in students' clinical teaching. Literature has reported the use of evidence-based teaching methods such as the use of pedagogical skills, simulation, nursing process, and peer teaching to help educators effectively teach students in the clinical environment (Mohebi et al., 2018).

Simulation

Simulation is defined as the creation of a patient-like real environment where students can practice different skills. Furthermore, apply their knowledge in patient care in readiness for real patient care or cases of infrequent patient scenarios (Sigalet et al., 2017). Evidence has indicated that simulation helps to build confidence in students and reduces chances for detrimental mistakes students can make before their actual contact with patients in a real setting (van Vuuren, 2016). Simulation of recent has become one of the options in health education. This has been due to increase of students in the clinical area, short stay of patients in the hospital as a result of improved health care services. In addition, inadequate infrastructure that limits space for student's practicals has also made simulation helpful (Gaberson et al., 2015). During

the simulation the educators create a real -patient-like environment by creating real-life patient scenarios. The student's puts own clinical dressing and are taught to treat the models as real patients (Gaberson et al., 2015). This has helped to improve students' competencies as they can start the process of translating the theory into practical rights in their training institutions.

Besides improving students' skills simulation has also been proven to change students' attitudes and communication with patients before they have gone to the clinical area (Tjoflåt et al., 2021). In addition, Due to an increase in student numbers, which has also put pressure on the already inadequate clinical sites, simulation has been chosen as an alternative teaching strategy in clinical education (Bvumbwe, 2018). Simulation has also provided students a chance to perfect their skills before they touch a real patient. This has enhanced patient safety, as students perfect their skills before performing them on real patients, also it provides a room for educators to teach students cases that are rarely found in the clinical area (Lendahls & Oscarsson, 2017).

In an experimental design conducted among third-year and second-year students on Simulation Learning from Simple to Complicated Clinical Situations at Hassan First University of Setta, Morocco 28 students reported that simulation is beneficial. The study found that students who did stimulation sessions after a pre-test performed well in their posttest as compared to those who did not undergo stimulation (Changuiti, 2021). Educators also have recommended that simulation helps the students to be able to transfer their theoretical knowledge into practical before they go to the clinical sites. In a study that was done in Madagascar and Tanzania on simulation-based education as a pedagogic method in nurse education programs in sub-Saharan Africa: perspectives from nurse educators' similar benefits (Tjoflåt et al., 2021). The study reported that educators in both countries regarded stimulation as one of the best methods in enhancing students' skills in the clinical area. However, the educators mentioned time factor as a limitation in practicing the method. This was so as simulation requires much time which was not included in the student's curriculum (Tjoflåt et al., 2021).

In addition, Mahadalkar et al, (2020) reported in their study conducted in India Bharati Vidyapeeth Deemed University on Challenges Faced by Midwifery Facilitators in Providing Midwifery Education reported facing challenges with simulation. The institutions complained of limited space, and that most mannequins are not working as institutions are failing to maintain them, making simulation learning a challenge. Evidence in the literature indicates that most of the simulation equipment in midwifery training institutions is donated from high-

income countries. The donations have disregarded other important issues like the capability of the institution's infrastructure to run the model in terms of electricity and training the faculty members on how to use them. As a result, most training institutions have labs with models but they are not effectively being used (Baayd et al., 2023).

A study done by Madlala and Mvandaba (2022) also reported that most educators were not competent in using the high-fidelity model. Similarly, a cross-section study that was done in Bangladesh on findings from a context-specific accreditation found some challenges. The study reported that 26% of the participants did not have adequate knowledge and skills to do simulation-based teaching (Bogren et al., 2021). However, the developed world has complained of over-dependency from the developing countries. A scorpion review that was done in Australia on common, content, delivery modes, and outcomes measures for faculty development programs in nursing and midwifery reported of other challenges. The study found that local institutions do not embrace the technology that they have made in their institutions. They observed that besides training them they still depend on them for maintenance and continuous use of the equipment (Smith et al., 2023). In Malawi, it is not known if instructors are also using simulation as an alternative to the shortage of clinical sites.

Incorporating ward nurses in clinical teaching

Ward nurses have been given the responsibility of teaching students due to a shortage of midwifery clinical instructors. However various studies have found that ward nurses do not teach these students. This is as a result of large number of patients for whom they are responsible. According to a study conducted in 2014 and 2017 at Leeds University in the United Kingdom on factors affecting the quality of midwifery students' learning in the workplace, reported that they stopped using educators in clinical teaching. This was due to work overloads, instead, they use midwives in clinical areas. However, these clinical midwives have little knowledge of clinical teaching, compromising the quality of education (Bharj & Embo, 2018). Furthermore, relying on clinical nurses to teach the students has also it's on challenge as their numbers are not adequate compared to the number of patients they have in their wards. As a result, they are also subjected to work overload. Evidence in literature has indicated that ward nurses find it had due to pressure of work to combine students teaching and routine patient care.

A good example is a qualitative, explorative, descriptive study done in South Africa on improving clinical preparedness of basic midwifery students, discovered that ward nurses regard students as extra hands. As a result, they tend to assign them responsibilities outside their scope rather than teaching them (Vuso, 2016). Another study done in South Africa also reported that midwives deliberately refused to teach a student in the clinical area. They left that for their lectures while others were not confident in their skills as a result, they shun away from teaching students (Malwela et al., 2016).

Similar results were also found in a qualitative study that was done in Sri Lanka on factors which influence the effectiveness of clinical supervision for students' nurses. The study reported that ward nurses were not able to supervise students in the ward. This happened due to patient workload and understaffing their side furthermore some ward nurses also were not interested in teaching students (Hill & Abhayasinghe, 2022). In addition, instructors also have complained that ward nurses do not teach the students correctly how to perform procedures. They usually teach them shortcuts. Due to work overload clinical nurses have found their own shortcuts in providing patient care ,which if teaching responsibility have been left in their hands ,students learns these shortcuts. These shortcuts compromises the quality of care patient's receives and may affect their healing.

Evidence in a qualitative study that was done in Taiwan on clinical nursing instructors' perceived challenges in clinical teaching reported that instructors complained that what their students learn in the class were different from what the nurses were doing in the clinical area. This made it hard for them to narrow the theory-practice gap (Yang & Chao, 2018).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the methodological techniques that were used to conduct the research study on factors influencing student clinical teaching by midwifery educators in Northern Malawi. This includes study approach, research design, study setting, study population, sampling and sample size selection, inclusion and exclusion criteria, data collection and management, data analysis, and ethical consideration.

3.1 Study design

The study employed a qualitative approach with exploratory descriptive as a design. Creswell and Creswell (2018) define a qualitative approach as an approach used to understand the meaning that an individual or a group attach to a social problem they are experiencing in their society, while Gray et al (2017) define qualitative research as a scholarly approach used to describe life experiences, culture, and social processes from perspectives of the person involved. This study employed a qualitative approach as it seeks to understand the midwifery educators' experiences in student clinical teaching. Gray et al (2017) stated that the qualitative approach collects its data from the viewpoint of the people experiencing it .That was why in this study the experience were collected from the educators themselves. This approach was the best for this study as the researcher explored factors that influence midwifery clinical educators in student clinical teaching. Evidence in literature has described the qualitative approach as an approach used to find a solution to a problem or an issue faced in society. Furthermore, the approach also helped to uncover issues in the society that the researcher would not have discovered if she had not interacted with the minds of the people experiencing the problem. This also gave an insight for areas for further studies which also helped to better solve the problem at hand (Trancy, 2020). Furthermore, this approach helped the researcher and other readers of this research to deeply understand the issues of midwifery education which will help them to effectively work in their field and be the providers of quality midwifery education (Trancy, 2020). In addition the exploratory design was used in this study because the researcher wants to conduct a study to understand the topic of interest (Mabbott, 2013). This design is

usually used in medicine and nursing research to solve an issue or a problem in need of a response (Mabbott, 2013). In this study, this design was used to find a solution that would help to improve the skills of newly graduating midwives.

3.2 Study site

The study setting refers to the location and circumstances in which data are collected (LoBiondo-Wood & Haber, 2014). Three training facilities and their teaching hospital in Northern Malawi hosted the study. The training institutions included Mzuzu University, St. John's Institute for Health, and Ekwendeni College of Health Sciences. The teaching hospitals were; Mzuzu Central Hospital, St John's Mission Hospital, and Ekwendeni Mission Hospital. The three training institutions were chosen because they were the only ones offering midwifery education in northern Malawi at the time of the study and they have recently increased their student intake and have also introduced new programmes at a high level in response to the global and country need for more midwives. In addition, the training hospitals were chosen because of their capability to offer emergency obstetric care services. The data was collected from participants in their respective institutions. This was so as the qualitative study design collects their data in a participant's natural setting. This has helped the researcher to interview or interact with the participants as they usually behave in their natural environment (polit& Beck, 2014; Trancy, 2020).

Characteristics of the study setting

Mzuzu University

Mzuzu University is one of the public universities that is located in the Northern Region along the M1 Road in Lubinga. The Nursing and Midwifery Department at the university was established in 2006 and belongs to the Faculty of Health Sciences. The university is headed by the deputy vice chancellor and the department of health sciences is headed by the dean of faculty. In the past years, the nursing department was offering a 4-year bachelor of science in nursing and midwifery degree but in recent years the department has added a 3-year bridging course for nurse midwife technicians to the degree and in 2021 they introduced a master's program in nursing clinical education. The nursing and midwifery department has 16 lectures of which 5 teach midwifery.

St John Institute for Health

St. Johns College of Health Sciences is a Christian Association of Malawi College under the Catholic Diocese of Mzuzu. In Mzuzu, the college is situated along Chimaliro Road opposite St John's Mission Hospital. The college was founded in 1963. In the past, the institution was producing nurses and midwives at the diploma level, but recently it has added a bridging advanced diploma programme. The Nursing and Midwifery Department has 19 lectures of which 4 teach midwifery.

Ekwendeni College of Health Sciences

Ekwendeni College of Health Sciences is a Christian Association of Malawi College under the Church of Central Africa Presbyterian Synod of Livingstonia, which is situated in Northern Malawi along the M1 Road but outside the city of Mzuzu. The college was founded in 1946, In the past, the institution was producing nurses and midwives at the diploma level, but recently, it has added an advanced diploma programme, an e-learning advanced diploma bridging program, and a certificate course in community midwifery. The nursing and midwifery department has 24 lectures of which 5 teach midwifery.

Mzuzu Central Hospital

Mzuzu Central Hospital is one of the referral hospitals located in the Northern Region of Malawi. It was opened in the year 2000. The hospital has a bed capacity of 400. It is one of the centers for training professionals in the nursing and medical field. It also has different departments such as medical, surgical, and obstetric departments making it an ideal place for training midwifery students.

Ekwendeni Mission Hospital

Ekwendeni Mission Hospital is a Christian mission hospital under the Synod of Livingstonia. It is located 20km from Mzuzu city. It has a bed capacity of 200. The hospital has both medical surgical and obstetric departments. The hospital is near Ekwendeni College of Health Science which trains nursing and midwifery students. This proximity and services offered make it the immediate training hospital for Ekwendeni College of Health Sciences nursing and midwifery students.

St Johns Mission Hospital

St John Mission Hospital is a Christian mission hospital under the Mzuzu Diocese. The hospital is located in Mzuzu City along Chimaliro Road. It has a bed capacity of 220. The hospital has all departments including medical, surgical, and obstetric departments. Its proximity to St John's Institute for Health makes it the training institution for nursing and midwifery students.

3.3 Target population

The target population is defined as where the study participants are selected from or the entire population meeting the study criteria. Midwifery educators working in the midwifery department and deans of the faculty of nursing and midwifery were the potential participants in the training institutions. Midwifery educators from the teaching hospitals, particularly labour ward in-charges, were also among the study participants. Deans of nursing and midwifery from training institutions were included in this study as key informants. Mabbott (2013) recommended that a researcher can get leaders in the field to be studied to answer some of the questions as experts and also, they can orient you to some of the cultures at the institutions. In this study, the dean of students was included to confirm some of the information participants were providing, and also, they helped the researcher in getting hold of the potential participants for the study. Further perspectives of information from participants with different responsibilities help to enrich the collected data.

3.4 Sampling

Sampling is the act of selecting part of the population to represent the entire population (Lobiondo-Wood & Haber, 2014). Mabbott defines sampling as a group of selected people, events, behaviours, or other elements with which a study can be conducted. In this study, a purposive sampling method was used. Purposive sampling is a non-probability method of selecting study participants based on their ability to provide the necessary information (Lobiondo-Wood & Haber, 2014). This method is usually used when the researcher is looking for participants who are experts in the area of study and have the potential to provide information that helps in answering the research question (Trancy, 2020; Polit &Beck,2014). This was a method of choice as the study wanted to have participants who have rich experience in teaching midwifery students through their stay in the midwifery department. Educators who

were teaching midwifery students in the training institutions, their respective deans of faculty, and the labour ward in charge who were involved in students' clinical teaching were selected.

3.5 Inclusion and exclusion criteria

The study's inclusion and exclusion criteria were obtained based on the literature review, the aim for conducting the research and the conceptual model used. The researcher used criteria that enabled her to find the required and appropriate sample size that helped the researcher to collect data that answered the study's research objectives. The researcher also considered that the inclusion criteria and the exclusion criteria should not be the opposite of each other.

3.5.1 Inclusion

These are the characteristics that study participants have to be a potential candidate for the study (Gray et al., 2017). All midwifery educators whose responsibility was to teach students in the clinical area were included as potential participants in the study. Educators who were on holiday during the time the researcher was collecting the data were not included.

- Midwifery educators who have two years of experience from both the college and hospitals were included in the study.
- Deans of nursing faculty from the training institution who have worked for more than a year were included as key informants. This was to make sure that the participants chosen had enough experience with the students' clinical teaching.

3.5.2 Exclusion

These were characteristics that caused some participants to be excluded as potential study participants (Gray et al, 2017).

- Educators teaching midwifery on a part-time basis.
- Educators who are in permanent managerial positions.
- Educators who are not involved tin teaching only do classroom work.

3.6 Sample size

This study had a sampling frame of 20 participants. A sampling frame is the act of making sure that all the persons in the target population have been sampled for the research study. Having a sampling frame is crucial in research as it helps a researcher not to be biased in the selection of the study participants**.**

In this study, 13 participants were interviewed, including 10 educators and three key informant's (Deans) one from each training institutions. The 10 educator two were from St Johns institute for health, one from St Johns mission hospital, one from Ekwendeni mission hospital, 3 from Ekwendeni College, two from Mzuzu University and one from Mzuzu central hospital. Those from the hospital were labour ward in charges and those from the college were educators. Initially, the study planned to interview 16 midwifery educators, but on the 8th educator' saturation was reached as no new information was coming out and two educators were just added to confirm if no new information would still not come out. Polit and Beck (2014) stated that during data collection, saturation is reached when no new information is coming out from the participants and redundancy has also been achieved. In addition, this sample size was enough as qualitative studies are flexible on the sample size as there is no guiding rule as the sample size depends mostly on the quality of the information being collected from the participant, hence data saturation stands as the major guiding rule (Malterud et al., 2016).

Further, the additional rate for this study was 100% as no participants withdrew in the process of data collection. Mabbott (2013) defines sample attrition as the withdrawal of participants before the completion of the study. The study sample size of 13 falls within the range (Hennink & Kaiser, 2022). The study also included 3 key informants to help in triangulating the data collected from the midwifery educators. Genot (2018) defines triangulation as the application and combination of multiple approaches in the study of the same phenomena, this has the potential of helping to assure the validity and reliability of research. Furthermore, triangulation helps to avoid data bias as information is obtained from more than one source (Genot, 2018; Noble & Heale, 2019). In addition, Polit and Beck (2014) state that triangulation serves the purpose of ascertaining the integrity of the data collected and also acts as an extra knowledge source from the participants, which helps the researcher to have the required data that helps to find the factors influencing midwifery educators in student clinical teaching (Genot, 2018).

3.7 Data collection and management

Data collection, according to Gray et al (2017), is the systematic gathering of information relevant to the research purpose or specific objectives, questions, or study hypothesis. Data collection for this study was done between July 2023 and September 2023 and the data was collected by the researcher herself. This was in line with the method chosen for the study as one of its features is that the researcher acts as the data collection tool (Trancy, 2020). .

The data collector travelled to all study sites institutions to get permission from the director of the institution who is also the institution's gatekeeper before data collection. When the institutions granted permission, the data collector booked appointments with the institutions' dean of nursing and midwifery faculty who were also study key informants.

The Dean of Nursing and Midwifery referred the data collector to the Head of the Department in the Midwifery Department. In the department, the data collector booked appointments with educators who met the study inclusion criteria upon their consent after being given study information for an interview. Besides getting permission from the get-keepers, permission was also obtained from the participants individually (Trancy, 2020). Polit and Beck (2014) state that in qualitative studies, the primary method of collecting information from participants is by interviewing them.

The data for this study was collected using an in-depth semi-structured interview guide with open-ended questions. Interviews allowed the participants to narrate their experience or knowledge on the matter they are being interviewed (Trancy, 2020). Nursing research and other health disciplines use open-ended or semi-structured methods to gather data from potential participants (Mabbott, 2013). Interviews can be conducted using different forms such as face-to-face, telephone and online (Genot, 2018).

In this study, a face-to-face structured interview was conducted and this was the best as it allowed the interviewer to observe non-verbal cues from the respondents. Furthermore, the semi-structure allowed the interviewer to probe more from the participants and get answers which were in line with the research question. When they are outside they ask the question and for the interview to be able to express their knowledge of the phenomena being asked (Genot, 2018; Trancy,2020). Furthermore, the semi-structured may also give the researcher to observe participants' emotions towards the topic as they have the freedom to explain more than in structured (Trancy, 2020). The

data collector interviewed the participants individually. The interview took 30 minutes and it was a face-to-face Interview guide. Questions were designed in a way that the first part of it was about the demographic data of the participants. This was done to create a mutual trust relationship with the participants.

The data collector used a recorder for the study data collection. Polit and Beck (2014) recommend that the participants' responses be recorded and transcribed verbatim. To avoid relying on the field notes only the data collector can easily get distracted as he is writing the field notes there by missing other important information. The researcher communicated to the study participants in advance that the interview would be recorded and that the recorder would not cause any disturbance to the participants. Knowing in advance that the participants were going to be recorded helps to reduce participants' anxiety. The researchers made sure that the recorder was noise-free to avoid distracting the participants in the interview. Before the interview, the researcher rehearsed the interview questions with the colleague to perfect her interview skills and also to confirm the potential time the interview would take. Mabbott (2013) stated that new data collectors are supposed to rehearse their skills in interviewing the potential study participants before embarking on the actual data collection to perfect their skills and also to note the actual time the interview can take and make amendments where necessary. During the interview, the researcher advised the participants to switch off their mobile gadgets and the office door was closed, only windows were opened to avoid any disturbance. This was in line with what Mabbott (2013) said that researchers encounter difficulties such as phone calls, knocks, and messages during interviews which disturb the process of data collection, there is a need to turn off all gadgets that have the potential to interrupt the interview before starting.

After the interview, the data collector listened to the recorded interview to make sure it was audible. Polit and Beck (2014) recommend that the data collector should listen to the tape recorder to make sure the information has been recorded and if there is a mistake the interview can be restarted.

The tool was developed using a literature review of related studies and study objectives. The guide was in English which matches the participant's level of education. The interview was conducted at the participant's training institution and hospital offices for privacy. Interview notes were also written by the data collector to supplement the recorded data. The interviews were done by the

researcher herself. The recorded data was later transcribed verbatim to identify nodes that were coming out. The recorded data was compared with the field notes and they agreed.

The transcribed data was kept in a flash that had a password only known by the researcher. Codes were assigned to each participant to maintain anonymity and confidentiality. Data for the study was collected from midwifery clinical educators, while the dean of students was a key informant. The key informants were included to triangulate the data. Triangulation is the process where a study uses multiple designs, different data collection sources, and more researchers for the data to be collected (Trancy, 2020). Creswell and Creswell (2018) recommended that different sources of data should be used in a study for the researcher to have concrete justification for the themes. It also helped to make the study valid as the information was collected from different participants.

3.8 Ensuring rigor

Rigor is the trustworthiness of the study findings (Lobiondo-Wood & Haber, 2014). The researcher proved that she has followed all research requirements and maintained the integrity of the research so that the results could be a true reflection of what happened on the ground or the issue being studied (Trancy, 2020). The study ensured that the information obtained from the study was trustworthy by triangulating it with other sources (Daniel, 2019). In this study, deans of nursing and midwifery faculties in the selected colleges were interviewed. In addition, the researcher used the Gubal Model, where issues of credibility, transferability, confirmability, and dependability were taken into consideration.

3.8.1 Credibility

Daniel (2019) defines credibility as "the appropriateness" of the study's tools, processes, and data to provide reliable and evidence-based results. This study achieved triangulation by collecting information from educators and their key informants (dean of students). Peer briefing was achieved by sharing the collected data with classmates. Furthermore, member reflection was achieved by selecting three participants from the nearest data collection participants' institution which took part in analyzing the data. Themes that were extracted and the study results were shown to the participants, this enabled them to ask questions for clarification and also corrections were made to the data collected on mistakes pointed out and missed.

This was accomplished by sharing the final report with the participants so that they could confirm whether or not the results matched the data they provided.

3.8.2 Transferability

Daniel (2019) defines transferability as the ability of the results from the study to be used in another similar setting. The details of the study setting, design used, sample size, and method of selecting the sample were provided to give room for other researchers to look into and decide if it can be used in their setting.

3.8.3 Confirmability

According to Moule and Goodman (2014), confirmability is a measure of a study's objectivity. This was accomplished by providing details of the research methodology, data presentation, and analysis in preparation for an audit trail by external auditors.

3.8.4 Dependability

Moule and Goobman (2014) define dependability as the data's ability to withstand repeated testing. This was accomplished by providing the audit trail to the examiners, allowing them to confirm the information in the results and data collected. Furthermore, the ideas and knowledge of the researcher did not interfere with the participant's views through the use of unstructured interview questions (Sorsa & District, 2016).

3.8.5. Validity

After analysing the data, the whole process was reflected to ascertain the trustworthiness of the results. Other researchers were asked to check each step of the data analysis. A discussion was held with the research supervisor until an agreement was reached.

3.9 Data analysis

Data analysis is the process of condensing and making sense of the information that the researcher has collected from participants (Gray et al., 2017). The data in this study was analysed manually using content analysis. Content analysis involves breaking down data into smaller *units*, coding and naming the units according to the content they represent, and

grouping coded data based on shared concepts (Polit&Beck, 2014). The following steps were followed in analysing the collected data.

3.9.1 Transcription

This is the act of changing the recorded data into written words. The researcher listened to the recorded data and wrote what exactly she asked and what the participants answered concurrently in a Word document. The transcription for this study took close to a month. When transcribing, the researcher takes into consideration pauses and all mannerisms from the participants. After transcription, the researcher took time to listen to the recorded audio while going through the transcript, and corrections were made (Trancy,2020). This was done to make sure the transcript was the same as the recorded data.

3.9.2 Editing the data

The tape-recorded data was transcribed by the researcher and compared with the field notes which showed that they agreed. Surita et al (2021) recommend that it is good for a researcher to transcribe the data as it helps her to be immersed in the data. After transcription, the data was cleaned up through editing by removing repeated words and also writing it in a way that the data should make sense to other readers without changing its original meaning.

3.9.3 Re-reading the data

After editing the transcribed data, the researcher re-read the transcriptions several times to get the deeper meaning of the data. This helped the researcher to be immersed in the data and to check if the data collected answered the research questions (Surita et al., 2021). The researcher observed that the data answered the research questions**.**

3.9.4 Construction of units of analysis

This is where data reduction was done**.** After getting immersed in the data, the points that have meaning in the data were selected. Points with similar meanings were grouped and units were made.

3.9.5 Identification of codes

At this stage, the units were re-read and their meaning was understood. Units with similar meanings were given a code and some units were discarded as they looked irrelevant to the study.

3.9.6 Consolidation of categories

The codes with similar meanings from different participants at this stage were grouped to form categories or themes. The categories were scrutinised to make sure that information of similar meaning should not appear in two categories.

3.9.7 Discussion of the themes

The categories were read and refined to get a deep understanding, which was used in line with the Donabedian Theoretical Framework, study objectives and what was said in the literature (Surita et al., 2021).

3.10 Ethical considerations

The safety of participants should be ensured before embarking on any research that deals with human subjects (Lobiondo-Wood & Haber, 2014). Participants in this study were protected by following the ethical consideration principles.

3.10.1 Permission to conduct the study

Studies conducted needed to pass through the reviewer body for their ethical approval. Any research conducted needs to pass through the review board to ensure the protection of human subjects. The board also ascertain if the risk available outweighs the benefits and the research should also be of significance to the society (Trancy, 2020). This study obtained its ethical clearance from Mzuzu University's Research Ethics Committee. The study was given ethical approval number MZUNIREC/DOR/23/76**:** The results from this study have the potential to improve the quality of midwifery education, which will help the country in achieving the sustainable development goal number 3 target number 3.1 by the year 2030 (Trancy, 2020)**.** The permission to conduct the study was obtained from St. John's Mission Hospital, St. John's Institute for Health, Ekwendeni College of Health Sciences, Ekwendeni Mission Hospital, Mzuzu University, and Mzuzu Central Hospital.

3.10.2 Confidentiality

Confidentiality is the ability to secure the collected data from participants without disclosing it to others unless granted permission from the participants (Lobiondo-Wood & Haber, 2014).In this study, the participants were told in advance that at one point, the research supervisors may request to look at the raw data. Permission was granted. Mabbott (2013) wrote that researchers should gain permission in advance if there is a potential that other people except the researcher will at one-point need to access the raw data collected. Usually, researchers breach confidentiality by allowing unauthorised personnel to have access. This study-maintained confidentiality by giving Codes to ensure participants' anonymity. To further assure confidentiality, the codes were given randomly without following the interview order. Only the researcher and the research supervisors had access to the recorded and transcribed responses which were kept in a flash with a password known by the researcher and supervisors. Breach of confidentiality can psychologically affect the study participants as the unauthorized person can socially attack them for the data provided and this can breach the anonymity that the researcher promised the participants (Mabbott, 2013).

3.10.3 Justice

This principle denotes justice. The research should be conducted for the benefit of all participants (Caulley & Marshall, 2013). Participants had the opportunity to ask questions to ensure that the responses were clear and accurate. Participants were given contact information so that they could contact the researcher or the Mzuzu University Ethics and Research Committee at any time.

3.10.4 Beneficence

This principle requires the study to avoid causing avoidable harm and to protect the well-being of research participants whenever possible (Pieper, 2016). The study ensured that only pertinent questions were asked and answered and that the information provided was not disclosed to anyone or used against participants in any way. Participants were not intimidated. They were informed ahead of time that there were to be no direct or monetary benefits to their participation in the study. However, the information provided helped to improve nursing education in Malawi, thereby improving the quality of health care provided to Malawians.

3.10.5 Respect for human dignity

Participation was entirely voluntary, and participants were free to leave the study at any time. Respect was given to all educators.

3.10.6 Informed consent

The involvement of human subjects in research needs to be done after their approval. This was developed after noting that some subjects were involved in research that harmed their lives without their knowledge. Informed consent was developed as a principle in research in Nuremberg Code in 1949. Informed consent is defined as the act of giving information to the potential participant and their ability to make an informed choice to take part in the study after being given all important information and they have understood what research to be conducted. The participants in this research were given the participant information sheet days before the interview and an appointment for an interview was made later. The researcher followed this route to give the participant time to understand the study before granting consent. Furthermore the informed consent was written in English which was convenient for the participant's level of understanding (Trancy, 2020). The researcher followed the Mzuzu University Ethical Committee informed concert format which was also approved together with the proposal. This was so to make sure the consent was in the language that the participant could understand and that the consent contained all the necessary information the participant would like to know. Mabbott (2013) stated that research participants needed to be given all important information about the study for them to make informed consent and to be given time to understand the study before granting their consent. In this study, the researcher took time to explain the information to the participants and they gave their consent after understanding through signing the participant information sheet. Further, the participants were allowed to withdraw any time they felt like withdrawing from participating in the study without any risks attached. However, none of the participants who concerted withdrew from this study.

Participants in this research were not given any compensation as the research had no health risk. Furthermore, the participants were voluntarily participating in the study without being coerced. Participants were further informed of this information before granting their consent (Trancy, 2020). Mabbott (2013) stated that participants taking part in research with risk/minimal risk need to be compensated and the researcher is required to discuss this with the

participants before they decide to grant a study consent. In this study, participants were given an information brochure that explained the purpose of the study; the data collection process; the role of participants in the study; the benefits; and any inconveniences with the study helped them make an informed decision. The participants were then given verbal consent and they signed a written informed consent form voluntarily consenting to participate in the study.

3.11 Study limitation

The study only included nursing and midwifery schools in the Northern Region of Malawi, as the region has both government and private owned institution which gave a broader representative picture of nursing schools in Malawi. However including only one region makes it hard to generalise the study results in institutions of similar setting as some individual institutions differences may affect the study results if done in those settings. However, the results from the study will be made available to readers to decide if they can apply them to a similar study setting. Another limitation of this study was recalling bias. Since the educators were giving information from their experience, they can choose not to disclose some information.

3.12 Dissemination of the results

A copy of the printed thesis for the study will be submitted to Mzuzu University Library and a manuscript will be published in a peer-reviewed journal. In addition, the results will be disseminated in a research conference and shared with study participants.

The results from this study will help midwifery institutions and organisations to know which areas to look into or maintain to improve the quality of midwifery education. The results from this study will help Malawi as a country to look into the opportunities and hindrances faced by midwifery clinical educators, thereby by improving the quality of midwifery education. This will help Malawi as a nation to have competent midwives who will help in reducing its maternal mortality rate, hence contributing towards the global achievement of reducing maternal mortality to less than 70/100,000 live births.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.0 Introduction

Results from the study show, that study participants had experienced both positive and negative factors during students' clinical teaching and they further expressed the coping mechanisms employed to overcome the challenges. What participants exactly said was used for the purpose of maintaining transparency and trustworthiness to the results and interpretations of the data. Participants were given individual codes during the interview for easy identification. The codes followed the following design; **P1-E-C** OR **P2-E-H** OR **P9-KEY-INFO-C**. The first part of the code indicates the order of the in-depth interview **(P1)**. The middle part identifies the role of the participant in the study whether the Educator **(E**) or dean who is the key informant **(KEY-INFO**). The last part identifies the participant's place of work whether college **(C)** or education (E). Below is an example of how data was analysed to come up with the subtheme and emerging themes

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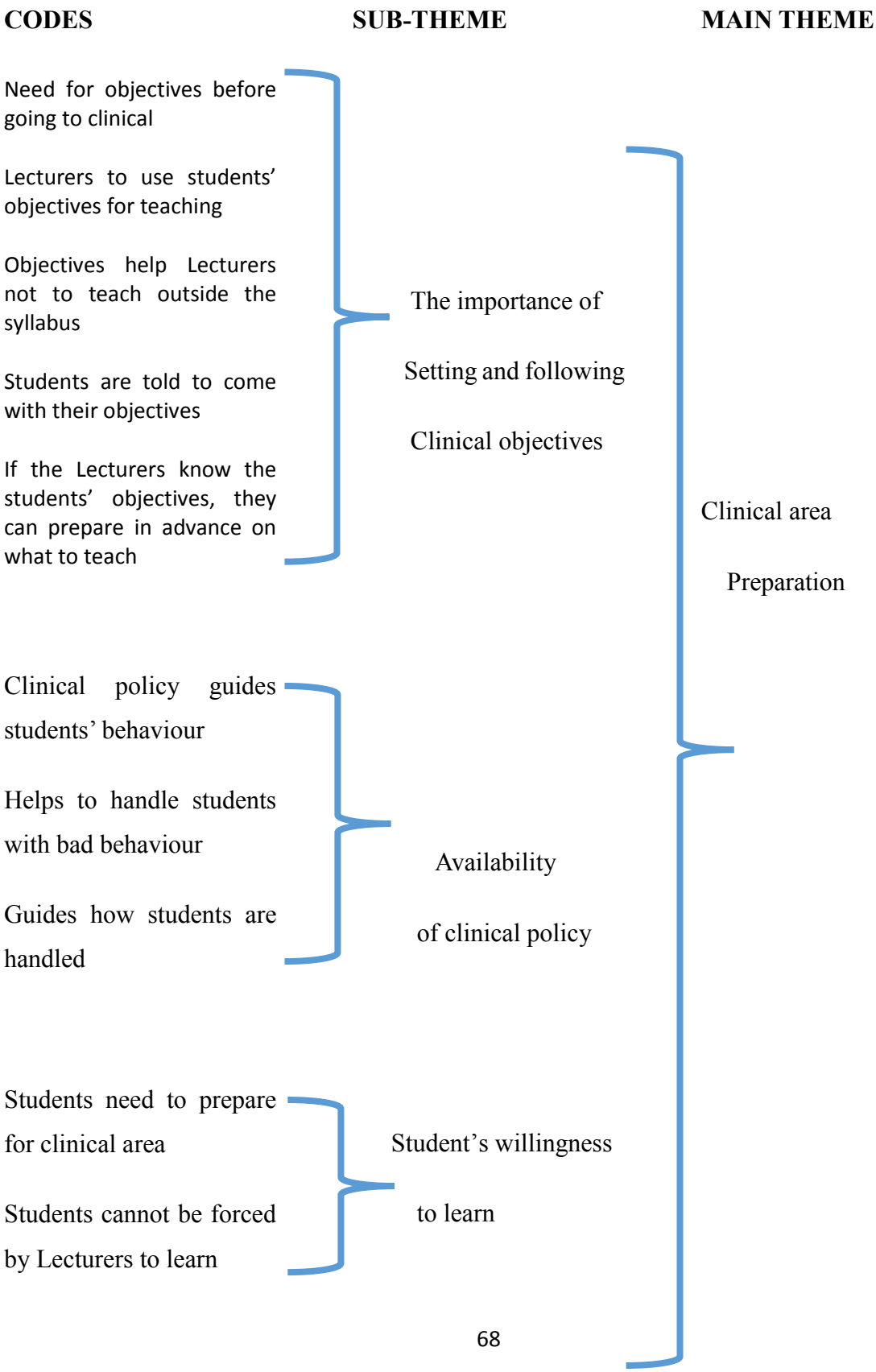
CODES
SUB-THEME
MAIN THEME
Need for objectives before going to clinical
Lecturers to use students' objectives for teaching
Objectives help Lecturers not to teach outside the syllabus
Students are told to come with their objectives
If the Lecturers know the students' objectives, they can prepare in advance on what to teach
The importance of
Setting and following
Clinical objectives
Clinical policy guides students' behaviour
Helps to handle students with bad behaviour
Guides how students are handled
Availability
of clinical policy
Students need to prepare for clinical area
Students cannot be forced by Lecturers to learn
Student's willingness
to learn
Clinical area
Preparation

4.1 Factors facilitating student clinical teaching by midwifery educators

The study found that there are some factors that if available facilitate clinical teaching. The following themes emerged: Clinical preparation, allocating a prescribed number of students in the clinical area, building cooperative relationships, capacity building in clinical teaching, clinical accompaniment, and the significance of adequate resources in facilitating clinical teaching.

4.2.1 Clinical area preparation

Participants said that for effective clinical teaching, there is a need for good preparation from the students, educators, and clinical sites.

The importance of setting and following clinical objectives.

As part of effective clinical preparations, the educators and one key informant emphasised the significance of having objectives before entering the clinical setting as one way of maximising the learning experience in the clinical area. At a teaching institution level, objectives also help a teacher to be focused in their teaching.

Participant said this:

"Before you go to the clinical area you need to have objectives. Objectives help you to be focused. Without objectives, you can just go to the clinical area greet patients, and chat with your fellow workers without teaching the student" **(P1-E-C).**

"For effective clinical teaching, I make sure that the objectives for the students are available for the lectures so that when they go there for support or to teach the student, they should not teach outside the syllabus but should concentrate on the education objectives" **(P9-KEY-INFO-C).**

The participants said that good clinical preparation, especially with prior knowledge of objects, helps students to be prepared psychologically for the expected activities which facilitates learning. The participant mentioned that students are instructed by the training institutions to bring their objectives, and they actively check and follow them during their daily interactions. Participant said this:

"One thing I can say is when students have come, they already have that tool which is given by the institution. Every student is told to bring their objectives, so every morning when they have come, we check those objectives, we follow those objectives and this facilitates clinical teaching" **(P5- E- H).**

*"If there is proper preparation before going to the clinical area, you know your student and also what they have covered and their objectives you can prepare yourself physically and psychologically. This helps you to have effective clinical teaching but if you do not prepare things do not work. As a clinical educator, I need to check my knowledge and my skills if they are up to date before going to the clinical area because things keep on changing now and again. As a clinical educator, I need to be confident and competent enough to teach the student***" (P3- E- C).**

Educators need to have time to prepare what they are going to teach the students so that they perfect their skills. This can only be possible if they are aware of students' objectives before they arrive in the ward.

Another participant said this:

"You have to make sure that you prepare well, as students, they have to be notified that you are going to clinical practice because if you just go there you end up overwhelming the students. You have to be knowledgeable about what they are going through and use their objectives in teaching them. What is it that they are achieving, so preparation is crucial that's why it is being emphasized to make sure that you plan for it through the use of clinical lesson plan" **(P7-E-C)**

They further observed that the objectives help students stay focused and guide their activities during their time in the clinical area.

"With objectives, we can write task allocation. So, everyone can know where to find which student and also know where to allocate students according to their objectives and you teach them according to their objectives and you teach them according to where they are allocated as well" **(P5-E-H).**

Availability of Clinical policy

One participant said that with good clinical preparation, students are given clinical policies that act as a guide on how they are going to conduct themselves in the clinical area. One of the Participants **said** this:

> *"When these students come here with their clinical policy it is easier to follow when teaching them. Without clinical policies, we may face challenges because we meet students of different characters. The clinical policy acts as a guide for us to teach the student. It also helps us on how we are going to handle the students the specified time they are allocated here. So, I may say that clinical policy***" (P11-E-H).**

Student's willingness to learn

Participants emphasised that Students also need to prepare when going to the clinical area. They need to show interest in learning by knowing what they are required to do in the practical area. Some of the participants said this:

> *"Students too need to prepare for learning. Much as there is that well-coordinated effort from educators from the college and hospital if the student is not willing to learn it will be a challenge to force them to learn. Students have a bigger part to play for learning to take place***" (P 3-E-C).**

> *"The other one is the willingness of the students themselves to learn is another facilitating factor" (***P13-E-C**).

Clinical preparation is key if we are to help students gain the necessary skills in the clinical area.

4.2.2 Allocating the prescribed number of students per clinical site

Participants said that a required number of students in the clinical area promotes effective teaching. This also helps them to follow students' progress in skill acquisition. The participants said that midwifery is skill-based and students need to be told procedures individually. Allocating the required number of students per clinical site helps you to achieve this. One of the participants said this:

"These days there are issues with student numbers, so for effective clinical teaching, you need to make sure that student numbers are manageable. We need to have a manageable number of students within the ward. If you put more students in one ward there will be congestion, most of the procedures in midwifery need a one-to-one interaction between the facilitators and the students for effective learning" **(. P12-E-C).**

"If you are to effectively teach the student, I think the numbers should be at least five students. You can manage to coordinate, but if you check around in our clinical environment, we have loaded students sometimes, of course, it becomes very difficult but I feel that in a one-to-one situation of teaching our students, is a facilitating factor" **(P7-E-C).**

A good number of students per clinical allocation allows each student to have individual interaction with the educators in the clinical area.

4.2.3 Academic clinical collaboration

Participants said that when there is a good relationship among educators, clinical staff, and students, there is a conducive environment for clinical teaching. Other participants acknowledge a need for good communication and interaction among students, educators, and clinical staff. The clinical sites need to know that this time we are receiving students in these departments, these are their objectives so that even in the absence of college educators, students' learning should still take place.

The cordial relationship between the educator, clinical staff, and students

"If there is no cordial relationship between the clinical staff and the college clinical teaching is always not effective. Clinical staff have to know, that we are going there in advance they need to have students' objectives, the number of students going, and students' schedules as we also depend on the clinical staff to teach the students. If you just go there as an academic and you do your work without involving the clinical staff then the student will somehow not learn. I can plan to I will be there this week but if something disturbs me I will not be able to go to the clinical area, if there is

coordination I will relay the message to the clinical area that am not coming because am busy and they can come in and take over and teach the students" **(P3-E-C).**

In addition, four of the participants had to say this:

"Another one is the relationship between the academic staff and the clinical staff. If you go into the ward, there is a need for a relationship between the two parties. You need to teach the students together for the continuity of care" **(P12-E-C).**

"The other one is the reception that we get from the hospital areas the nurses that we find there the clinical staff that we find there the way they receive us, the way they give us a chance to be with our students, is another facilitating factor. **(P13-E-C).**

"The other one is collaboration. We can have the theoretical knowledge but, if we have others in the clinical practice, it works better as we complement each other" **(P7-E-C).**

"We have several facilitators for clinical teaching, and the student-teacher relationship is very important" **(P12-E-C).**

Educators emphasized that those from the hospital and the college should be working together in teaching students so that they can share knowledge and be able to teach students and also learn from each other.

Support from the clinical institution

One of the participants said that for effective clinical teaching, educators need support from their institutions and they need to have all the skills and resources they need to support the student. One of the participants said this:

"Support from your college as lectures you need morale support for effective clinical teaching" **(P3-E-C).**

One of the key informants also said that she supports the educators by giving them feedback on their performance in the clinical area. This is what he said:

"I also support lectures by giving them feedback on their performances. When the lectures have gone to the clinical area, we get feedback from either students or the staff

from the clinical area. So, whatever the feedback is coming from that side, we share with the faculty so that they can improve through reflection on how they perform in the clinical area" **(P9-KEY-INFO-C).**

4.2.4 Capacity building in clinical teaching

Participants said that for effective clinical teaching, educators need to have the knowledge and skills to be able to teach the students. Educators need to make sure their skills and knowledge are up-to-date for them to effectively teach the students. This is what one of the participants said.

> *"As an individual educator, I also prepare myself by going back to the notes and skills. I mean time and again you need to refresh yourself because sometimes you think you know yet you may forget some other crucial points. For example, am have students in midwifery science in the clinical area and am going there for clinical teaching, I need to ask myself if am I confident or competent that I know all the skills they need to gain.* ***(*****P3-E-C).**

Another participant also emphasised the need for the competency of educators through updating their knowledge through refresher courses as things keep on charging. This is what she said:

> *"Refresher courses facilitate clinical teaching as they help educators update their knowledge and skills.* **(P3-E-H**).

One of the key informants also said that he supports midwifery educators by making sure that they are competent in student teaching. This is what he said:

> *"In the case of supporting the clinical educators, number one we make sure that these clinical educators have enough skills or they are competent. So, for them to be competent we do prepare Continuous Professional Development sessions. So, members are required to identify areas they have to act on, and also as an institution, we identify areas we need to help one another. Every two weeks do have Continuous Professional Development sessions just to help each other acquire those skills that are needed for midwifery"* **(P4-KEY-INFO-C).**

Interaction among the educators, clinical staff and students give them an opportunity to discuss issues concerning student's acquisition of knowledge, skills and altitude in the clinical area, hence creating a conducive environment for both student learning and teaching.

4.2.5 Clinical accompaniment

Participants from the hospital said that the presence of educators from the college helps them to teach the students well as they can get guidance from them when they are stuck. The presence of educators in the clinical area also helps students gain more skills as they spend time and work together with their teachers. During the time educators are with the students, they also model them students into the midwifery profession. As a result, the students graduate with knowledge, skills, and altitude for practice.

Availability of the lectures in the clinical area.

Clinical educators based in the hospital said that clinical teaching is effective when they are together with educators from the college as they help each other when they are finding problems. This is what the participant said:

> *"When their lectures are around, we are like we are many and it's easy to teach the students and also, they guide us if we find a problem. Sometimes there are things that we do which in class they were not taught when they found something in us, they advise us to teach them*" **(P5-E-H).**

Similarly, another participant said this*:*

> *"We have their lectures coming but not regular basis but at least they do come to supervise the students as well as meet us the clinical educators. When they are available to the clinical area, we teach the students together and when we have challenges we consult them, and this also motivates us"* **(P11-E-H).**

Another participant also said that even the staff who are available with the students need to be competent for effective teaching as they also interact with the students. This is what he has to say:

"So, the availability of the staff in the ward, and competent staff should also be considered when we are talking about facilitators" **(P12-E-C).**

Clinical educators spend more time with students.

Some participants said that the time educators spend with the students is also very significant for effective teaching. The educators need to spend much of the time with the students. Below is what the participant said:

"If educators have enough time with the students, they can teach them all procedures step by step and this facilitates clinical teaching" **(P2-E-H).**

'When educators go to the clinical area at the required time they are supposed to go, they have a good time to spend with the students hence effective clinical teaching" **(P3-E-C).**

"Being time conscious and planning well with adequate time with a student also gets their learning to be very good "**(P8-E-C).**

"When educators have time with the students they can reflect on their learning. Through reflection sometimes it's just very easy to catch how the student learns. Let them reflect on the practice, sit down with them, and see where the gaps are. That is how I work with the students when I am in the clinical practice "(**P7-E-C).**

Use of different types of teaching modalities

As part of educators' competency, they also need to know and utilise different teaching modalities to impart knowledge and skills: This is what one of the participants said:

"Using a wide range of modalities of learning in the form of case studies presentations, and bedside demonstrations help to facilitate clinical teaching and students learning" **(P8-E-C).**

To facilitate the student's transfer of theory to practice, presence of the educators in the clinical area is very paramount

4.2.6 Availability of clinical teaching resources

Availability of teaching and learning resources is very crucial in clinical teaching as it helps educators to demonstrate different procedures step by step without taking shortcuts. In addition, the presence of patients with different conditions is also very important as it exposes students to different conditions. This is what they said;

> *"The resources, if they have brought their resources and if the government also have provided enough resources, it helps us to teach them effectively"* (*P***5-E-H).**

> *"Availability of resources is also actually very important"* ***(*****P12-E-C).**

To concur with what other participants had said, one of the key-informant said this:

> *"I support the educators in their role as clinical educators by making sure that all the resources that are needed are available* **(P9, KEY-INFO-E).**

On the availability of patients one of the participants said this

*"One is the presence of the clientele, the presence of our patients. is a positive factor in teaching students in the clinical area, if we don't have patients the students cannot be taught effectively***" (P13-E-C)?**

Availability of resources helps students to learn exact way the procedures are supposed to be done. What they learned in both theory and the skills lab are not different as a result its easier for them to shorten the difference that exist between theory and practical**.**

4.2 Barriers faced by midwifery educators in student clinical teaching

The study results indicate that participants are faced with different challenges in teaching students in the clinical area. The following themes emerged. Negotiating multiple roles, congestion of students in the clinical area, caseload number and teaching space versus a number of students in the clinical area, negligent supervision, inadequate resources, and students with challenging behaviour, and negative reception by clinical staff.

4.3.1 Negotiating multiple roles

Participants from the college said that they are required to teach both in class and the practical area and in addition, they hold other managerial positions that require their attention. Participants from the hospital complained of too much work as their primary work is to take care of patients. As a result, clinical teaching becomes second. As a result, a participant from the college always values class work compared to clinical teaching. This is what one of the participants said:

> *"We have busy schedules at the college. We need to teach students who are doing their theory at the same time we have students who are in the clinical area.* We usually refrain from going to the clinical area to prepare for classes" **(P1-E-C).**

Similarly, the other two participants said this:

> *"The challenges as I already said like time management, it is hard to manage time, I have so many roles at times instead of teaching them the basic steps at times we just do it in a shortcut way just for them to learn basics not doing what is necessary to do"* **(P2-E-H).**

> *"The other one has to do with the overlapping of the activities combined with clinical teaching and assessments. So where do I prioritize? Between the assessment and clinical teaching which assessment will be my priority? Sometimes I can put the priority to clinical teaching but I will teach in groups based on their need, and then off I will go for assessment. This affects the student's skill acquisition. So, overlapping of the activities is one of the major problems we experience in clinical teaching"* **(P7-E-C).**

Educators need to have enough time to spend with the students but having multiple roles makes their role of teaching students suffer.

4.3.2 Congestion of students in the clinical area

Participants complained that when they are allocated in the clinical area they find many students which do not match to the number of educators present both from their institutions and other colleges as some institutions leave their students in the clinical area without having time to go there for clinical teaching and supervision. This is what they said.

"When it comes to teaching, you find that from my college am there from the other college they are not there and these students need. All of them are students and need knowledge impact. This gives you a lot of work to do because in clinical teaching by the standards you have to spend at least a minimum of 30 minutes per student. You feel sorry for them because some of them are like a week will go by without their clinical instructor coming in to help them." **(P3-E-C).**

"The other thing is we normally have a lot of students from all institutions in Mzuzu and even outside Mzuzu. Sometimes it's difficult to follow who is not learning and who is learning*"* **(P5-E-H).**

Participants from the college and also some key informants also complained that the number of students is too much compared to the educators leading to too much work in the clinical area. This is what they said.

The workload is the first thing, we do have a large number of students, so maybe monitoring each of them very closely is quite challenging because the numbers themselves may be quite big **(P8-E-C).**

"Now the other thing is bigger numbers of your students. You may have six students in the labour ward, that's a lot. Because if you look at you need to take this person through the whole process let's, say from admitting the woman up until she delivers. Six it's not easy to impact the knowledge, in the end, the end will finish without teaching all of them. If it was a good number that you're having three students in the clinical, I think that would have been better but we have large numbers and you against time" (**P3-E-C).**

"Another challenge is the congestion of students in the clinical area, there are too many not only ours but combined with other students from other institutions. You can have 30 or 40 students from one ward" **(*P*13-E-C)**,

*"We talked about the numbers sometimes we have three cohorts in the same clinical area and the same teaching institution it becomes very difficult to supervise. The other one has to do with the overlapping of the activities combined with clinical teaching and assessments so where will your priority be "***(P7-E- C).**

"Due to large student numbers sometimes, you may not teach all the students at the same time. Sometimes the conditions we teach them in class they may not find them in the clinical area" **(P10-E-C).**

> *It could be workload since there are few educators on the ground. One educator is handling more than 20 students in the clinical area, and we have a census of about 800 students against probably 15 members of staff, so that's the key challenge and barrier that can affect the effectiveness of clinical teaching (***P6-KEY-INFO-C).**

Similarly, Participants who were also informants also complained that they had too many intakes against the same educators. This was what he said.

> *"Number two it's the issue to do with workload, we have several cohorts currently we have nursing students, and we are talking of seven cohorts. So, they are the same clinical teachers who support these students. So at times, we may plan to have that peer teaching or to have that paired senior to junior educators mentorship but due to the number of classes that they have you find that that sessions may fail because educators are busy with classes"* **(P4-KEY-INFO-C).**

> *"We have several cohorts. Currently, we are talking of seven cohorts. So, they are the same clinical teachers who support these students. So, at times, we may plan to have that peer teaching or to have that paired members the senior and his junior but due to the number of classes that they have, they find that that session can be one to 2 not as per plan itself because of the numbers (***P4-KEY-INFO-C).**

Having too many students in the clinical area affects the time the educator will spend with the student. As a result, teaching is compromised

4.3.3 Caseload number and teaching space versus number of students

Participants complained that the number of students available in the clinical area does not match the space and the number of patients available. This is what they said

> *'You have so many college students waiting for the same clients. You meet Mzuzu University, Ekwendeni College, Kamuzu College Nursing, and St John students in one*

clinical site. They may reach up to 17 or 18 students and you only have two clients in labour. What do you do? **(P3-E-C).**

You cannot manage to teach the students effectively, sometimes whatever you want to teach them you want a certain patient with a certain condition. You can go into the ward and look for those patients but they are not there. So, it's very difficult to teach them, such as students in such an area because the patients are not there. **(P1-E-C).**

*"A lot of students from different colleges from different schools all of them are looking for the same patients. Sometimes the students outnumber the patients available and this results in fewer learning opportunities "***(P12-E-C).**

"So, you find that there are few cases and students are scrambling for case" (P12-E-C).

Another key informant also talked about infrastructure in our clinical setting. The space in the hospitals does not allow educators to be able to teach too many students at once. This is what he had to say:

*"One of the challenges is in terms of the space. I can say mainly the space where they can freely teach these students. You know this time around we have several students in the clinical area, we are using the same wards and several colleges. We are talking of St John, Mzuzu University, Ekwendeni, and even other colleges that send students to the same hospital that we also sent. So, when you go there you find several students scrambling for the same patients if you look at the space in the wards you don't have enough space so teaching at the ward level "***(P4- KEY-INF-C).**

"Clinical educators have reported to the office with the challenges and one of the challenges is in terms of the space, I can say mainly the space where they can free teach these students. You know this time around we have several students in the clinical area we are using the same wards and several colleges, so we are talking of St Johns, Mzuzu University, Ekwendeni, and even other colleges that send students to the same hospital that we also sent. So, when you go there you find several students scrambling for the same patients. If you look at the space in the wards you don't have enough space, so teaching at the ward level it's not as effective as it is supposed to be. So this clinical

teacher may plan to say am going to have three students to support them but when because of the issue of space, you find that they don't deliver according to how they planned yes" **(P4-KEY-INF-C).**

Sometimes educators need space to teach students in privacy in the clinical area. However, due to a shortage of space, they are forced to explain some things on patients' bed sides, which may affect both students and the comfort of the educators to explain things.

4.3.4 Negligent supervision

The educators from the hospital said that their colleagues who are with the students at the college do not come to the clinical area to teach the students.

"One more thing I want to comment on is about their lecturers at the college. They need to find time to visit their students cause most of the time they just leave the clinical teaching to us." **(P2-E-H).**

'The other challenge is lecturers don't come to the clinical area, some come once, and some only come for evaluation, it's hard for us to teach students alone because we don't know what they want in their teaching guide. There are some things in the teaching guide we don't understand, they need to come for us to understand what they want" **(P5-E-H).**

"Students, are not regularly supervised by their lecturers. I put it as a challenge because we have other roles in the end, we fail to have time with these students, if their lectures come it means its relief, we will help each other" **(P11-E-H).**

Educators usually concentrate on theory work and neglect the practical work of the ward nurses even if they have time to go to the clinical area

4.3.5 Inadequate resources

Participants complained that both human and material resources to be used to teach the students in the clinical area are not enough. The number of educators available does not match the number of students and, they lack basic material resources such as gloves, to be used in teaching

the student. In addition, participants from the college also complained that they lack standard guidelines for teaching students. This is what they had to say:

> *"I said about resources, we do not have enough resources, so it's hard to teach them the necessary recommendations that are there"* (**P2-E-H).**

> *"Sometimes because we are many the resources are not enough and their institutions normally do not send enough resources. Sometimes you find students bringing ten groves their ten students even more who will be here for maybe two months sometimes more than that"* (**P5-E-H).**

> *"Lack of resources in our hospital"* **(P10-E-C).**

> *"Another challenge is the teaching material. We teach these students but most of us don't have the guide. The guides either from the college or those stipulated by the nurses and midwives' council. Sometimes, we may teach using the knowledge that I have yet in the guideline things have changed. At least if we could have these manuals that could be easy for us to teach these students"* **(P11-E-H).**

> *Another one is resources, we have very few resources. When student numbers are big and resources are small students cannot practice a lot of procedures which becomes a challenge. Most consumable resources such as gloves are not there, they are in short supply, and those basic resources that you need in the maternity ward you cannot do without them when they are in short supply too (***P12-E-C).**

> *"In student clinical teaching the number one challenge is lack of resources. Lack of resources here at the college, lack of resources at the hospital.* **(P13-E-C).**

In addition, participants who were also key informants mentioned inadequate staff and financial issues as a challenge. Participants said that.

> *"The key challenge that we have is inadequate staff and finances, so you get the program that people are supposed to travel you signed for their allowances acknowledging and endorsing that they have to travel but there are no resources to travel. Sometimes people have failed to travel even if everything was already arranged due to transport. This sometimes leaves students in the clinical area unsupported for*

weeks. In terms of staffing, I can say for human resources yes, we have inadequate members of staff on the ground. If the members have failed to travel that still brings in some other challenge because whatever the student may learn there is not necessarily exactly what we expected them to go through because these clinical teachers now have their dural function and in most cases, their priority is patients other than student" **(P 6-KEY-INFO-C).**

"Sometimes resource issues, I need resources due to the large number of students you may find that every week we are supposed to go out to the clinical area and sometimes there might be no resources so we don't go there" **(P9-KEY-INFO-C).**

Transport logistics

One of the participants complained that when they wanted to visit students in the clinical area mostly transport is not present or they would be given transport late.

"When you are supposed to go to the clinical area like Mapale or Mzuzu Health Centre or any other hospital to which we are allocated there is no transport. Sometimes the transport may be there but we may go late instead of going at 8 we may go at 9 or 10. So that means if you don't go or if you go rate according to the objectives you have planned you may not manage to meet all the objectives as a result you cannot teach them effectively". **(P1-E-H).**

Inadequate resources affect students' clinical teaching as educators fail to demonstrate procedures in an ideal way.

4.3.6 Students with challenging behavior

Participants said that some students do not follow the clinical policy rules and others are slow learners. As a result, they learn slowly. Below are the sub-themes that emerged,

Uncooperative students

Participants said that some students do not listen to them, they want to do what they desire. Below is what the participants said:

"Sometimes the students are not cooperative for example the use of cell phones sometimes they are busy on their cell phones" (**P2-E-C).**

"The students at times maybe are not adhering to the rules of the clinical area like the dos and don'ts "**(P2-E-C).**

"Maybe the attitude of the students, there are some who do not want to be told, there some who don't want to be collected. If they have done something wrong and you're trying to collect them they give you a bad attitude" (**P5-E-H).**

Another participant complained that some students run away from the clinical area, which reduces their clinical learning hours. This is what they said:

"Some students run away from the clinical area. Those students whom we had the challenge are now coming back here because they did not finish performing the requirements that the council has given them, it's more of character or personal character. I have students with different characters yes some adhere to what the institutions need them to do as a department or the college but some don't adhere" (**P11-E-H).**

Similarly, one of the key informants also said that some students are difficult to handle in the clinical area. This is what he had to say:

"One of the issues is students' behavior, how most of the students behave is tiresome like they are not adults, and we have to apply the military style to command them to do things. So mostly it's tiresome with regards to the number of students we do have currently" **(P9--KEY-INF-C).**

Slow learners

One of the participants complained that some students took time to capture the skills. This is what he said.

One of the challenges we meet in the clinical area is that some students take time to grasp the skills. Even if you can demonstrate to them several times, you find some students failing to perform the skills. At the end when the student goes back to college, they repeat the year, or

even when the nurse's council comes for evaluation the same students who struggled during the clinical area are sent back to do some skills" **(P11-E-H).**

Educators meet students who take time to understand things in the clinical area, which affects how long the students will learn the required skills.

4.3.7 Negative reception by clinical staff

The participants complained that the relationship between the colleges and the hospitals is not good. As a result, they lack coordination in student teaching. This is what the participant said:

> *Another one is the relationship between the academic staff and clinical staff. If you go into the ward, there is no relationship between the two parties, it's like you go there as staff from the faculty you do your things on the student and the clinical staff are also doing their things. In that way, the continuity of learning becomes a problem for the students.* **(P12-E-C).**
>
> *Coordination between the institution where the student is taught and the clinical area sometimes becomes very difficult* (**P7-E-C)**.
>
> *"Once we send students, they expect us to be there all the time to guide or to coach to mentor our students but sometimes as I said we may not be there every day, and if they are not interested the students suffer. So, sometimes we have extremes whereby we find clinical staff refusing to teach the students, they wait for educators from college* **(P3, -E-C).**

Similarly, participants who are also key informants mentioned that collaboration between the hospital and their colleges is a challenge. This is what they said.

> *The challenges are also in terms of mainly collaboration between us and the teaching institutions and our colleagues who are at the bedside. We are supposed to work hand in hand because we are all in the same profession but at times we don't collaborate well and there is that gap between us such that when you go to the bedside to teach. When a clinical teacher comes, they say your teacher is here then they leave the student to that particular teacher so we have to admit to saying that those that have been in teaching or at the college doing the theory do a much of theory and with time they lose*

some of the skills we depend much on our colleagues who are on the bedside in terms of the skills. So, when we go there to teach the students, we assume that they pair up to work hand in hand as they are supporting the students. **(P4-KEY-INF-C).**

"*Most lecturers complain of lack of support from the clinical side especially because some institutions give incentives to the clinical educators at the hospital others do not. Those who give incentives to their students are supported but those who don't give incentives to their students suffer*" (P**9-KEY-INF-C).**

Clinical nurses find it hard to teach the students as they believe their primary role is patient care.

4.3 Strategies used by midwifery educators to solve clinical teaching challenges

Results in this study indicate that participants are faced with challenges in students' clinical teaching. However, some strategies have been implemented to solve the challenges. Below are the themes of the strategies: Cost sharing, creation of more opportunities and sites for student placement, and enforcement of clinical policy.

4.4.1 Cost sharing

Participants suggested that when students are coming to the clinical area, they should bring some resources for their learning purposes.

College-supporting clinical sites

One of the participants said that sometimes if they have resources, they give the students when they are going for clinical allocation. This is what they said.

"If we have the resources most of the time as we are sending the students in the clinical area, we also have the package of those resources like gloves aprons and stationers, at least to boost up the resources within the hospitals" **(P10-E-C).**

"On the resources, the college tries to supply but they are few as the college cannot manage to provide, they depend on the hospitals." **(P12-E-C).**

Students' availability in the clinical area increases resource consumption and institutions need to support teaching hospitals.

4.4.2 Creation of more opportunities and sites for student placement

Participants suggested that if more sites are created for institutions to send their students, congestion in the clinical area will be reduced.

Shifts allocation

Participants suggested that if students are too many on clinical sites, they divided them into different tasks. This is what she said.

> *"We allocate them according to a bay but when worse comes to worst they do am and pm shits so some students will go in the morning up to about 12 o'clock or one and the other students will go at one o'clock so that they have an experience. If the worst comes to the worst for example in STI, ART some students will be on drug parking in ART or STI while some students are inside seeing the cases. At about three hours they exchange so that each one of them can do drug parking, file filling, file finding, while the others are seeing the cases inside that's when the worse has come to the worst*" **(P13-E-C).**

Identification of more clinical sites

Participants said that at times they search for more clinical sites to allocate students or they also utilise skills laboratory. If students are many on one site, they can also be told to work in shifts. This is what they said:

> *"In terms of numbers, we have been able to search for more clinical allocations so we send the students to several areas to avoid overcrowding in one clinical facility"* **(P10-E-C).**

> *"We have also talked to private hospitals to allow to allocate students to decongest public hospital clinical sites"* **(P 8-E-C).**

> *"Of course, currently there is an intensification of the use of the skill lab. You need to use the skill lab to make sure the students get the necessary skills from the skill lab before they go into practice. After they go into practice also when they come back, they*

have to use the skill lab. The skills they didn't manage at the hospital they should be able to practice them within the skill lab" **(P12-E-C).**

Make up for lost hours.

Two of the participants said that they usually make arrangements when they have missed clinical teaching. This is what they said:

"When am not at the clinical area as planned, I give assignments to students and presentations to make up for the missed hour"

(P1-E-C).

"We usually make arrangements like during lunch hour time if anyone has something that they want to learn then, we make use of that time and discuss how that thing is supposed to be done. At times when we do not have patients in the ward, we usually use that time for discussion" (**P2-E-C).**

Clinical educators need to make sure students achieve their clinical objectives at the end of their allocation.

4.4.3 Enforcement of clinical policy

Participants said that when they have new students coming, they orient them on the clinical policy. They need to be reminded about the clinical policy every time they come for clinical allocation. Those who go against the policy undergo disciplinary measures. This is what he said.

"Whenever a student is here the first thing, we call them briefly and tell them the hospital policy as well as the ward policy they will be allocated to and what they are supposed to be doing here despite they may have other clinical policy rules from their school, they need to too to follow the protocols from the ward here" (**P11-E-C).**

One of the key informants also said that they frequently talk to students about maintaining professionalism in the clinical area.

Before students have gone to the clinical area, we sit down with them on issues of maintaining their professional behaviour in the clinical area. The clinical sites too are engaged through pre-clinical meetings that are held every time we need to send students to that site where issues of professionals from both the students and the clinical staff are discussed. The clinical staff also are allowed to express some of the challenges they face with students and together we discuss how to overcome them. (P**9-D-KEY-INF-C**).

Participants said that students who have violated clinical policy rules are punished. This is what one of the participants said.

"We usually have a time in and time out sheet in the clinical area for students to sign and also the qualified nurse countersigned at the end of all sheets students have worked. When the students have run away from the clinical area a gap is created in the signing sheet. Students who run away from the clinical area or are reporting rates are told to replace the hours. They sign from 7:30 am to 4:30 pm during the day shift and in the evening from 4:30 pm to 7:30 am. **(P13-E-C).**

Educators need to make sure students are away of clinical policy before they are allocated to the clinical area

CHAPTER FIVE

DISCUSSION, RECOMMENDATION AND CONCLUSION

5.0 Introduction

This chapter discusses the results of the study on factors influencing student clinical teaching by midwifery educators in northern Malawi. The discussion has been done following the study objectives. The chapter has also included recommendation and conclusion for the study**.**

5.1 Factors that facilitate midwifery educators in students' clinical teaching

The first objective of this study was to assess factors that facilitate midwifery educators in students' clinical teaching. Effective clinical teaching requires that a clinical teaching environment be conducive for both educators and students. The study found the following factors: clinical preparation, prescribed students' numbers in the clinical area, building cooperative relationships, capacity building, clinical accompaniment, and significance of availability of resources.

Clinical preparation

Clinical preparation such as the availability of clinical objectives was mentioned as one of the facilitating factors in students' clinical teaching. The availability of student's clinical objectives acts as a guide to educators as they are teaching students. This helps them in assessing if students have gained the required competency at that particular clinical site. Similar results on objectives were also found in a study that was done in Australia on factors influencing nursing student learning during clinical placements (McTier et al., 2023). The results revealed that communication about students learning outcomes between the academia and the hospital when students are going to their practice facilitates their learning (McTier et al., 2023). In addition, a study that was done on clinical learning experiences of nursing and midwifery students in Ghana reported that the availability of objectives was an important factor in students learning (Amoo & Ebu Enyan, 2022). According to the study results and the literature is has indicated that students needs to be given objectives every time they are going to the clinical area and

these objectives needs to be understood by both the students and the educators and measures needs to be designed to assess if these objectives are being achieved

Capacity building

Participants from this study indicated that capacity building among the participants was a motivating factor. One of the capacity buildings that was mentioned in the study was peer teaching. Evidence in studies indicates that most of the educator's capacity building is done in groups, which misses the individual capacity building. Kohan et al (2023) recommended that individual and peer faculty development programs need to be taken into consideration to target faculty with individual competency deficits. Capacity building helps educators to be competent in the clinical area. As a result they can teach the students different skills. These results are also similar to those of a study that was done in Iran on the development of accreditation standards for midwifery clinical education. The study results emphasised the need for current evidence-based competency skills among midwifery educators as it helps them to effectively teach the students (Abedian et al., 2022).

In addition, Participants in a qualitative study that was done in Iran on the characteristics of an effective clinical instructor from the perspective of nursing students found similar results. The results stated that for effective teaching, the educator needs to have adequate skills in the clinical area (Soroush et al., 2021). These results are also in line with the ICM global standards which stipulate that midwifery clinical educators should be able to practice and teach students in the midwifery clinical area. In addition educators need to continuously involve themselves in professional continuous development to update their knowledge (ICM, 2021). Furthermore, Shikuku (2022) in its study found that the educators' skill attainment improved from 60% pre-training to 88% after the training. Benny et al (2023) also reported that peer support, discussion of clinical teaching styles and regular discussion of issues about students' clinical teaching gives them confidence and knowledge to teach the students in the clinical area (Benny et al., 2023). Through continuous professional development midwifery educators can be aware of evidence-based research, policies, knowledge, and skills for student teaching in the clinical area (Needham et al., 2016). This calls for individual and institution initiatives to make sure that educators knowledge are being updated either through workshops, institutions continuous professional development programes and online courses

Clinical accompaniment

This study found that student's clinical accompaniment facilitate clinical teaching. Student's accompaniment helps educators to be with the students in the clinical area. Similarly a qualitative study that was done in Sri Lanka on factors that influence the effectiveness of clinical supervision for student nurses reported that effective clinical supervision helps them acquire the required skills (Hill & Abhayasinghe, 2022). This help to boost competence and confidence in their delivery of care to patients. In addition, the NMCM stipulates that a student should spend 40% of their time with an educator (Nurses and Midwives Council of Malawi, 2021).

This study found that having a prescribed number of students in the clinical area is a facilitating factor. These findings are similar to those of the study done in Ethiopia which demonstrated that if a clinical educator has 5-15 students per clinical area, there is effective clinical teaching (Kitaba et al., 2021). In Malawi, the Nurses and Midwives Council of Malawi stipulates that in the midwifery clinical area, educators' ratio should be 1:5. Having a stipulated number of students in the clinical area is very important as educators have time to teach skills to each student individually (Nurses and Midwives council of Malawi, 2021). This helps to ensure patients' safety as students do not work alone.

The results also found that a good relationship between academia and hospital staff facilitates clinical learning. Similarly, in its educational policy, the NMCM stipulates that the training institution should have a policy that will help to create a good relationship between education institutions and the practice area. A good relationship between academic and practice institutions helps to create a conducive environment. This allows the two parties to discuss issues about student clinical teaching, hence promoting effective clinical teaching.

Availability of clinical teaching resources

Participants also reported that the availability of resources is very significant to educators' clinical teaching as it helps them to demonstrate competencies to students. The ICM recommended that the midwifery program should have the required number of staff, space, date, teaching resources, and equipment for students' teaching and learning (ICM, 2021).

The study also reported that if educators from the clinical area are given a token of appreciation they actively participate in the clinical area. These results are similar to those of a study done in the United States on incentives and barriers to precepting nurse practitioner (Webb et al., 2015). The preceptors reported that being given money for teaching students motivates them (Webb et al., 2015).

In addition, participants from a systematic review done in Australia on preceptors' experience in supervising undergraduate nursing students reported that they need to be motivated. The participant reported that they need a motivation in form money for their work and their time spent teaching students in the clinical area (Benny et al., 2023). In this study besides mentioning facilitating factors to students clinical teaching the results from this study indicate that educators are faced with a lot of challenges. This has affected their role of teaching students in the clinical area.

5.2 Challenges faced by midwifery clinical educators in student clinical teaching.

The study reported that midwifery educators are faced with challenges in their role of teaching students. The results from this study indicate the following themes: Negotiating multiple roles, Congestion of students in the clinical area, Caseload number and Teaching space versus the number of students, Negligent supervision, Inadequate resources, Students with challenging behaviour, and Negative reception of clinical staff.

Negotiating multiple roles

The participants from this study reported that educators are experiencing role conflicts in their work. Educators from the training institutions are supposed to teach students both theory and practical and at times, they find it difficult to combine the two. Similarly, educators from the hospital also have their primary role, which is to care for patients, and at the same time, they need to teach students. If they have too many patients to care for, a dilemma exists. In addition to that, they hold different managerial positions that require their attention. These findings are similar to those of a study that was done in Sri Lanka on factors that influence the effectiveness of clinical supervision for student nurses (Hill & Abhayasinghe, 2022).

The study found that educators from the hospital complained of too many patients as compared to their number. Furthermore, they also had other managerial work to perform. As a result, their role in teaching students suffers (Hill & Abhayasinghe, 2022).

Similarly, a study done in Bangladesh reported that midwifery faculty members had high workloads. This was as a result of their involvement in teaching nursing students in the classroom and the clinical area (Erlandsson et al., 2018). In addition, educators from developed countries have also complained of having role conflicts. The educators reported that they are both needed in classroom teaching and clinical teaching. This is as a result of inadequacy in their numbers as they are not enough to concentrate on one area. Ashipala and Hoebes (2023) also reported that registered nurses are not enough at the ward. As a result, they fail to teach the students as they concentrate on patient work. Similar results were found in a study done in Ghana on assessing challenges of clinical education in baccalaureate nursing programme. Educators complained that on top of teaching students, they are given other responsibilities. This limits their time spent with the students and increases their entire workload (Asirifi et al., 2017). Similarly, educators in a study done by Ndasiyenga et al (2020), educators complained that they failed to implement what they learned at training. This was due to their involvement in administrative work. This limits the time to spend with the students. However, the developed countries have limited their student intake despite the high demand for students willing to study the midwifery course. This is contrary to the developing countries which are increasing their student intake according to demand without considering the number of educators. This has affected the quality of midwifery education in developing countries as the ratio of educators to students is too high compared to the developing countries (Butler et al., 2016).

Educators also complained that they usually fail to reach the clinical area in time due to delays in clinical preparation logistics. These results are similar studies done in Iran, South Africa and Ghana which reported that educators come late in the clinical area, as a result student receive inadequate supervision. (Amini & Amini, 2020. Donough & Van der Heever, 2018, Asirifi et al (2017). Midwifery training institutions needs to make sure they collaborate and share their programs with other departments like transport in their institutions to make sure educators are priority .This arrangement will help educators to go in the clinical area in good time as the ones responsible for transport will be aware.

Inadequate resources

Results from this study also indicate a shortage of resources for teaching students as one of the challenges being experienced. The study reported that the number of educators does not match with the number of students. The educators lack basic midwifery equipment and supplies to be used in demonstrating procedures to students. Lack of resources and equipment has a greater impact on education. Shortage of resources will make educators to fail to follow the guidelines in the procedures manuals and they will be forced to use shortcuts. As a result, the students fail to learn what is ideal (Bogren et al., 2020). Mselle et al (2022), in their study done in Tanzania, instructors reported that the availability of protocols and manuals acts as a step-by-step guideline in teaching students. Lack of resources in the clinical area affects the student's transition from theory to practice (Mselle, 2022). As a result, students finish college with inadequate skills and fail to deliver after they qualify.

A study done in Malawi by Tembo et al (2019) reported that new graduates were failing to deliver skills in the clinical area as qualified midwives. This is as a result of lack of skills which they said was due to shortage of resources in the clinical area during their pre-service education. Similarly, Ashipala and Hoebes (2023), in their study also reported that registered nurses fail to teach students in the clinical area due to a lack of equipment and resources to use for student teaching. The study further reported that students were able to narrate the procedures theoretically, but in practice, they were unable (Ashipala and Hoebes , 2023). In addition, the study found that the number of patients and space were not enough compared to the number of students available in the clinical area. Similar results were found in a study done in Bangladesh, which reported that the number of patients and space for midwives to learn was not adequate. This was due to the high number of students in the labour wards. In addition, they also complained of the dominance of student doctors being allowed to care for the patients as compared to midwives (Byrskog et al., 2019). This limits the time students spend doing procedures on a patient, hence they fail to translate the theory into practice (Sharma et al., 2015). Another study done in Namibia reported that students were unable to practice some procedures due to a lack of patients, and some patients refused to be treated by student midwives (Hoebes & Ashipala, 2023). Mwale and Kawala (2016) reported that students failed to perform some skills because patients were not enough compared to their numbers. Similar results were reported by Shayan (2017) in its study on challenges of clinical education in midwifery and strategies to improve. The study reported that the number of patients in the

clinical area does not correlate with the number of students available. As a result, there is congestion at the patient's bedside limiting patients' rights to privacy.

The study done in Ethiopia on the perception of midwifery students in their clinical environment reported that 83% of the institutions where students were coming from had inadequate infrastructure and stimulation material to be used for clinical teaching (Kibwana et al., 2017). Similar results were reported in a study done by van Vuuren (2016). In this study the educators complained that the space in the skills laboratory was not adequate for both educator's teaching and student learning. In addition, Taranto and Ngamgue (2022), in a systematic review done in Sub-Saharan Africa, reported that students lack cases in the clinical area. This was as a result of large student numbers, which hinders them from meeting their objectives. This has a great impact on educators' clinical teaching as they are unable to teach and demonstrate to the students. Furthermore, students' exposure to patient care is limited, hence unable to achieve the required competencies. Similar findings were reported in the State of the Midwifery Report 2022. The report stated that midwifery education is faced with a shortage of qualified midwifery educators and inadequate resources to be used for training midwifery students (UNFPA, 2022). To concur with the State of Midwifery report, a framework of action for strengthening quality midwifery education for universal health coverage by 2030 reported similar challenges (World Health Organization (WHO), 2019) .The study found that there is lack of material and human resources for teaching the students and educators. Furthermore, educators are reported to unable to go to the clinical sites due to poor logistics (World Health Organization (WHO), 2019). In addition, a qualitative study that was done in Iran on clinical placements as a challenging opportunity in midwifery education found that the institutions lack equipment and facilities to use for student teaching (Modarres et al., 2022).

Shortage of resources was also reported in a study that was done by Mwale and Kalawa (2016). The students reported that they failed to practice some skills due to a lack of resources and if they performed, they mostly used improvised resources, not the ideal. This leads to poor acquirement of skills in the clinical area. Similarly, Kitaba et al (2018), reported that 95% of educators who participated in the study participants reported working in an environment with limited resources for teaching students. The participants further stated that they lack models for teaching students and this affects the acquisition of their skills. A study that was done on the nursing education partnership initiative on innovations in nursing and midwifery education

found that educators are faced with inadequate resources and with few opportunities for continuous professional development. This greatly affects their delivery of competent skills to midwifery students. In addition, a systematic review of faculty development programs based on the hardened teacher's role framework model reported that teachers are faced with inadequate faculty development due to limited resources to be used for these programmes (Kohan et al., 2023). As a result, they lack information for evidence-based faculty development programs (Kohan et al., 2023). Similar results of shortage of resources such as space, and new books were also reported by novice educators to use for teaching students (Sodidi & Jardien-Baboo, 2020).

Similarly, Hakim (2023), in its study on investigating the challenges of clinical education from the viewpoint of nursing educators and students, found that 94% of the participants had inadequate education resources to be used in both student teaching and learning. The study further reported that both Malawi and Zambia have less than half of the required number of educators on the ground (Middleton et al., 2014). In Ghana, a study done on the clinical learning environment of nursing and midwifery students reported that 29% of the participants received unsuccessful clinical supervision, only 4% received successful supervision and most of the supervision done was group supervision as 67% reported having a group supervision due to shortage of educators (Ziba et al., 2021). Similar results were found in a qualitative study that was done in Bangladesh on midwifery capacity building in Papua New Guinea: Key Achievements (Dawson et al., 2016). . The study reported that not less than 50 % of the students had effective supervision, while the rest experienced inadequate educators that limited their access (Dawson et al., 2016). The shortage of midwifery educators is not only a problem in developing countries but also developed countries.

Evidence from a study done in the USA on knowledge and use of the ICM global standards for Midwifery (Barger et al., 2019). Education reported inadequate resources such as the number of educators and clinical sites to send students as a challenge (Barger et al., 2019). Similar results of inadequate clinical sites were also reported by Marzalik et al (2018) in their study of midwifery education. Though developed and developing countries have a shortage of educators, the developing countries are the ones with the highest shortage of number of midwifery Educators (World Health Organisation, 2014). . The student ratio to educators, in classroom teaching in developing countries is estimated at 1:12 and in developing countries, it is estimated at 1:45 (World Health Organisation, 2014). Though the ratios are for the

classroom, they give us a picture that even the ratios in the clinical area for developing countries are high. This has an impact on student learning as the time they spend with the student is limited. Furthermore, most of the educators in developing countries have no formal qualification in education. Evidence indicates that only 6.6% of its educators have formal qualification in education (World Health Organisation, 2014). This is central to the ICM's prescribed standards, which stipulate that a midwifery programme needs to have both human and material resources for student learning (ICM, 2021).

Congestion of students in the clinical area

The study also reported that they are faced with congestion of students in the clinical area due to high student intakes, which does not tally with the number of educators and clinical sites available. Recently, many countries in Sub-Saharan Africa, including Malawi responded to a call by WHO to strengthen human resources for health. One of the responses has been to increase the number of student intake (Mbakaya et al., 2020). This has put pressure on the already inadequate resources that midwifery education has been facing. This is greatly affecting clinical teaching and student acquisition of skills as educators cannot manage to teach students. A scoping review done in Australia on common content, delivery modes, and outcome measures for faculty development programmes in nursing and midwifery reported similar (Smith et al., 2023).

The study found that educators were failing to implement what they learned to students due to the pressure of work, as the new teaching programmes were time-consuming (Smith et al., 2023).

Similarly, a study that was done in Malawi on challenges in neonatal nursing clinical teaching to nurse-midwives reported facing Challenges sites (Phuma-Ngaiyaye et al., 2017). The study found that due to an increase in student intakes, there is overcrowding and high workload in the clinical sites (Phuma-Ngaiyaye et al., 2017). Besides the large student numbers, most clinical sites have inadequate clinical features for student learning. The Malawi health sectors Strategic Plan 11 2017 to 2022 reported that both the government and the Christian Association of Malawi hospitals have poor and inadequate equipment in their Settings (Government of the Republic of Malawi, Ministry of Health 2017). The strategic plan further reported that 25% of

equipment in these hospitals was reported to be not in use (Government of the Republic of Malawi, Ministry of Health 2017). These are the main institutions that students are being sent to for their clinical attachment. Similar results were found from a study done by Ndayisenga et al (2020) on nurse and midwife educators' experiences of translating teaching methodology knowledge into practice in Rwanda. The study reported that educators failed to fully implement the programme due to a large number of students in the clinical area. The educators reported that the new methods of teaching require students to practice individually. As a result, they cling to the old group teaching methods which have a poor ability to impact the skills of students.

Students with challenging behaviour

Students with challenging behaviour are another challenge that educators are faced with. Educators complained that some students do not follow the clinical policy rules such as coming to clinical in good time, and use of cell phones in the clinical area. This makes the student have poor skill attainment during clinical practice. Some students take time to capture the skills in the clinical area. These results are also similar to a qualitative study that was done in Finland on healthcare educators' experiences of challenging situations with their students during clinical practice (Karjalainen et al., 2022). The study found that some students are rude to the nurses, have learning difficulties, and report late to the clinical area. Furthermore, a qualitative study done on exploring the barriers to registered nurses undertaking clinical teaching in clinical settings found similar results (Hoebes & Ashipala, 2023). Participants complained that some students could spend the whole day on their phones. Others were reported behaving rudely to qualified staff instead of concentrating on the attainment of their clinical skills (Hoebes & Ashipala, 2023).

However, a study that was done in South Africa on factors that influence the high absenteeism rate of student nurses in the clinical area at Lejweleputswa District found that student absenteeism is due to high workload and poor staff attitudes in the clinical area (Magobolo & Dube, 2019). The high workload in the clinical area had made students be used as a pair of hands and being assigned duties as qualified not as students. As a result, students get tired and fail to meet their clinical objectives and they become demotivated and behave unprofessionally (Yang & Chao, 2018). Similarly, Jagannath et al (2022), in their study on nursing students'

perceptions of the clinical learning environment at the University of South Africa found that 69% of the students were not treated well by their educators.

Similar results were also reported in a study done in Namibia on factors contributing to unprofessional behavour among nurses at the University of (Ashipala & Shaluwawa, 2021). The study found that the use of mobile phones and absenteeism from work were the major challenges reported by the study participants (Ashipala & Shaluwawa, 2021). This behaviour draw students attention from clinical practice as a result they don't achieve the set objectives.

Negative reception by clinical staff

The study reported that educators find it difficult to interact with staff in the clinical area as they are seen as outsider

Similarly, Talato and Ngangue (2022) reported that students complained of a bad relationship with the clinical Nurses, from the first day of their clinical allocation and this makes them leave with fear. Student absenteeism needs to be taken seriously as it hinders their learning and also determines their performance. Hakim (2023) reported that 91% of the challenges faced by educators in the clinical area are due to the unwillingness of the students to partake in clinical activities. In addition, educators in a study done in Taiwan reported that clinical staff could shout at students when they performed a procedure unsatisfactorily or when they were unhappy with the student's behaviour in the clinical area which affects students learning (Yang & Chao, 2018). Evidence in studies has indicated a strong relationship between students' performance and their availability in the clinical area (Lawali et al., 2020). However, in a study done in Malawi, students complained that they were not being respected by their educator (Chipeta et al., 2022). The educators shouted at them when they went to the clinical area in the presence of patients and this demotivated them (Chipeta et al., 2022).

However, Mselle et al (2022), in their study in Tanzania, reported that both students and educators misbehave in the clinical area because of their lack of interest in learning. They wait for their supervisors to force them to perform procedures in the clinical area. The results from this study also indicate that educators from the colleges experience a negative reception from

the clinical staff when they go to the clinical area to supervise students. Educators from the colleges complained that they work in isolation despite both having the common goal of impacting the knowledge and skills of the students.

This is similar to a study done in Asia on facilitators and barriers to providing high-quality midwifery education in South Asia, where results revealed that there is a communication barrier between educators from the clinical area and academia (Bogren et al., 2022). The study found that 29% of the participants did not experience effective communication as they were not aware of what the students would do in the clinical area (Bogren et al., 2022). Similarly, a study done in Bangladesh on findings from a context-specific accreditation assessment at 38 public midwifery education institutions reported that 29% of the instructors were not aware of the students' objective (Bogren et al., 2021). This means that students were allocated to the clinical area before the two institutions discussed their learning outcomes (Bogren et al., 2021). Similarly, Rameswaram (2016) students reported that due to poor communication, they sometimes refused to enter the clinical sites because the hospital management was not told of their coming. This reduced their clinic hours as they went to the school to make proper arrangements for them to be accepted in the clinical setting. Another study done in Malawi on enhancing nursing education via academic and clinical partnerships revealed that the interaction between the two parties is not regular and only happens when there is a need (Bvumbwe, 2016). Poor interaction between the two institutions has a great impact on student teaching as they do not have time to solve the issues they meet when they are teaching the students. Students have also been complaining about being stressed in the clinical environment by educators. A study done in Malawi reported that 12% of the student were using substances to manage stress caused by their poor relationship with staff in the clinical area (Baluwa et al., 2021).

Negligent supervision

Educators from the hospital also complained that there is negligence from the college in supervising students in the clinical area. Educators from the college leave their students in the clinical area without coming to teach them. They only come once or they will only come during assessment time. Similar results were also reported in a study done in Bangladesh by Bryskog et al (2019) in which educators reported inadequate numbers in the clinical area making it hard for them to fully provide effective clinical teaching to the students. In addition, Donough

(2018), in their study on undergraduate nursing students' experience with clinical supervision, reported that some students had no supervision in the clinical area. The students further reported that when they were allocated to particular lectures, they automatically knew that they will not be supervised. This happens as some individual lectures were known to be deliberately shying away from student's clinical supervision. This has an impact on students' learning as they have no time to be helped to narrow the practice-theory gap. As a result, they have poor skill attainment (Kaphagawani & Useh, 2013). In addition, evidence in the literature indicates that educators from the hospital lack formal knowledge in teaching students. As a result, they fail to deliver the required knowledge, and skills to the students (Sodidi & Jardien-Baboo, 2020).

Similarly, results were found from a study done in South Africa on experiences and mentoring needs of novice nurse educators at a public nursing College (Sodidi & Jardien-Baboo, 2020). The study reported that educators lacked knowledge and skills in teaching the students. Most of the educators were not familiar with the student's clinical tools and the academic support were not available to guide and support them (Sodidi & Jardien-Baboo, 2020). The results are also similar to a study done in Malawi on clinical supervision and support: exploring pre-service registration of nursing students in Malawi (Kaphagawani & Useh, 2013). The study reported that educators are only available in the clinical area during the time of their orientation to the new clinical sites. They will be available again in the clinical area during assessments towards the end of the allocation (Kaphagawani & Useh, 2013). In addition, students complained that they had no one to teach them in the clinical area as ward nurses expected them to work as they do due to a shortage in their numbers (Hill & Abhayasinghe, 2022). Furthermore, results of a study done on nursing and midwifery students' experiences and perception of their clinical learning environment reported that they experienced poor clinical accompaniment (Mbakaya et al., 2020.). This was due to absence of the educators in the clinical because of shortage of human resource. Educators in this study have complained that they fail to vist students in the clinical area due to their numbers, however studies have reported that ,when they are given a chance to be in the clinical area ,their impact is not significant as most of them lack skills and confidence because they spend much time in classroom teaching. This has led midwives graduating with more theory knowledge which is not equivalent to their skills as a result their performance in the clinical area is compromised

Caseload number and teaching space versus number of students

Lastly, educators complained that the number of patients available and the teaching space do not much with the number of students available. The participants complained that there is an external force to increase the number of students and midwifery programmes to meet the demand. For years, the number of educators and hospitals to send students has remained the same. A study done in Namibia on exploring the barriers to registered nurses undertaking clinical teaching in clinical settings reported that educators in the clinical area were willing to teach the Students (Hoebes & Ashipala, 2023). However the number of patients was small and this affected their delivery of skills and knowledge to the students. Similarly, a study done in Turkey reported that 42% of nurses in the ward failed to teach students in the clinical area because their educators from the training institutions were not available (Sahan & Guven, 2020). Findings of shortage of patients due to increased student numbers in training were also reported in a mixed-method study done in Malawi (Mbakaya et al., 2020). The challenges found in the study and the literature has the potential to hinder student's attainment of clinical competency as their individual exposure to patient care is limited and students scramble for few cases available.

Besides being faced with different challenges, educators are still performing their role in the clinical area. Some have found solutions to some of the problems they have been facing in the clinical area.

5.3 Strategies used by midwifery clinical educators to overcome the factors that hinder clinical teaching

The study results indicate the following strategies: cost sharing, the creation of more clinical sites, clinical meetings, and enforcement of clinical policy.

Cost sharing

The study found that sometimes training institutions give students stationery and gloves when going to the clinical area. Similar results were also found in a study done by Ashipala (2023). In the study participants reported that there is a need for support from donors on resources specifically for student clinical teaching and learning. This is also similar to results from a systematic review that was done in Malawi on enhancing nursing education via academic-clinical partnership (Bvumbwe, 2016). The study recommended that with the increasing number of students in the clinical area, there is a need for training institutions and the hospitals

to share on the cost of resources for students training (Bvumbwe, 2016). Furthermore, Asififi et al (2017) in their study on assessing challenges of clinical education in the baccalaureate nursing programmes in Ghana had similar recommendation. The study reported that students were told to bring items like gloves to the clinical area due to a lack of resources. However though cost sharing has been mentioned as one way of solving the challenges most of the training institutions do not provide their students with the resources when going to the clinical area. A few institutions that does only gives the students basic resources like aprons and gloves that usually covers for few weeks far away to the number and the time students will spend in the clinical area. This has greatly affect the quality of education as student perform procedure with improvising as a result they find it difficult to link what they learned in class and what they are doing in the clinical area. .

Creation of more opportunities and sites or student placement

In terms of student congestion in the training institutions, the participants in this study said that they manage student congestion through the creation of more clinical sites. They achieve this by dividing students into shifts, use of simulation-based learning, and use of private hospitals for student practice. However, in the use of private hospitals, some students reported meeting challenges as patients denied being cared for by students. A study done in India on challenges faced by midwifery facilitators in providing midwifery education reported that most private institutions have a challenge in accepting students to practice (Mahadalkar et al., 2020) . Since most of their patients deny being nursed by a student Evidence in studies has reported that simulation has become the choice for creating more opportunities for students learning. This has been adopted in this era due to the increase in the number of students as compared to the existing training sites (Baayd et al., 2023). However other studies have been complaining of inadequate equipment in these labs, which hinders students' learning.

A qualitative study done in the Republic of Congo reported that educators were failing to take students for simulation-based learning as the lab available did not have any equipment for them to use in teaching the students (Bogren, Kaboru, et al., 2020).. As a result, students entered the clinical site with theoretical knowledge only, making it hard for them to learn the skills quickly. Similar results were also reported by Hashemlparast et al (2019). Instructors reported that they failed to teach students exactly what they taught them in the theory class in the skills lab. This was due to a lack of resources and equipment to use in performing some procedures.

Participants in this study also recommend the use of technologies in teaching students in times of pandemic to facilitate their learning. An integrative review that was done in sub-Saharan Africa on nursing education challenges and solutions recommended the use of innovative technological strategies in teaching Students (Bvumbwe, 2018). The study encourages educators to be flexible in the use of these measures to maximise student learning amidst these high student ratios .Similar, recommendation was made in a study done on nursing education partnership initiative innovations in nursing and midwifery education supported institutions. (Middleton, et al., 2014). The study states that most of the infrastructure does not allow high student numbers. Therefore, there is a need to create similar clinical learning environments that can allow students to practice and gain skills (Middleton, et al., 2014).

The study results and literature has shown that though creation of more sites can help in decongesting the student in the clinical sites, some sites lack both human and material resources for student's clinical teaching which further worsen the quality of midwifery education.

Enforcement of clinical policy

Participants also said that they solved some of the challenges by having clinical meetings with hospital staff. These meetings allow them to discussed issues related to student teaching. This is also similar to the recommendation done in a study done in Malawi on challenges in neonatal nursing clinical teaching to nurse-midwife Technicians (Phuma-Ngaiyaye et al., 2017). The study states that the colleges should continue collaborating with the clinical staff for clinical teaching and students' supervision for students' skill attainment (Phuma-Ngaiyaye et al., 2017).

The participants also said that students who are misbehaving in the clinical area are being punished according to the clinical policy. Students are sometimes told to replace the hours and also before going to the clinical area, they receive clinical policy orientation. Similarly, the University of Namibia in its student's clinical guide book stipulated that a student's absenteeism without a valid reason in the clinical area warrants disciplinary action (Ashipala & Shaluwawa, 2021). The guide line requires a student to replace the actual hours missed or doubling replacement of the missed hours. It is the responsibility of educators to make sure they know their student's behaviour in the clinical area. This help the educators to follow them for effective clinical teaching (Mohebi et al., 2018).

5.4 Conclusion

The study results has brought forward challenges that midwifery educators are facing in their role of teaching students. These challenges has a potential of affecting the quality of midwifery education offered to students. Addressing these challenges will help to improve the quality of midwifery education offered to students.

5.5 Recommendations

According to the results of this study and the information gathered from the review of the literature, recommendations have been made to address some of the issues that have been found. The recommendations have been categorised in terms of policy, research, practice, and education.

Policy

The literature indicates that there is a stipulated ratio of educator to student in the clinical area, but the results of the study indicate that this is not followed. The study recommends that the NMCM, should reinforce training institutions to follow the stipulated ratio of student to educator. This will help to enhance effective teach student interaction in the clinical area which will facilitate student skill attainment

The study also observes that most of the problems faced by midwifery education are due to underfunding. The nurses and midwifery associations should lobby with policymakers that midwifery education is adequately funded. To perform these roles, the midwives' association needs to avail their existence in the nation. This can be achieved by performing different activities such as press briefings.

Secondly, the results indicate that the clinical policy is not followed as students use their phones during the clinical hour and others knock off before time. The study recommends that at the start of each clinical allocation student be reminded of the clinical rules and those who will not follow should be punished according to the clinical policy .Punishing students who did not follow clinical policy will act as a reminder to other students to be following the clinical policy

Educators from the hospital complained of a lack of guidance to be used in teaching the students. In this view, the training institutions should provide manuals with updated skills to the clinical sites so that educators can use using in teaching students.

Thirdly, the study results also found that the relationship between the practice and the education was poor in terms of who is responsible to teach the students and in terms of resources students use in the clinical area. The study recommends that there should be a memorandum of understanding between the practice and training institutions. This memorandum will act as a guide to each institutions responsibilities. The memorandum of understanding should be amended and reviewed at an agreed specific period of time.

Education

The study noted that most educators have no professional knowledge of education. The study recommends that all midwifery educators should have a formal course in education before embarking on teaching students. This will help them to have knowledge of teaching strategies that will facilitate students learning. The recommendation is Similar, to a study done in South Nigeria on factors hindering the clinical training of students in selected nursing education institutions (Anarado et al., 2016).

Thirdly, the findings also found that some educators lack competencies in the clinical area. As a result, they cannot teach students. We recommend that educators undergo skill drills every time students go to the clinical area to master the skills. This will help them to be competent to transfer right and up-to-date skills to the students. Educators in a study done by Asegid et all (2022) stated that educators who have inadequate skills should be helped in the skills lab or be mentored by competent senior staff.

In addition, to improve their skills, educators from the college and hospital need to have scheduled continuous professional development sessions. These sessions offers opportunities for the two institutions to share different skills and share knowledge and skills to be used in teaching the student.

Fourthly the study and the literature review reported that the quality of midwifery education is going down. This study suggests that training institutions should introduce an education quality

assurance committee. This committee will be responsible in evaluating the quality of midwifery education offered and make recommendations for improvements.

Practice

The results from the study indicate that the infrastructure available does not match the number of students. The study recommends that every institution needs to have a skills lab with functional equipment for students learning. These laboratories will help students to perfect their skills before going to the clinical area hence reducing the time they can take to master a skill.

The study also found that resources also were not enough for educators to use in teaching students. So, the study recommends that the training institutions should always send the students with some basic resources when going to the clinical area. This will help to boost the resources the hospitals have and students will be learning I deal things.

The study found that sometimes clinical educators deliberately shun the clinical area and prioritise other activities. The study recommends that training institutions should give every lecturer a logbook where the lecturers should indicate their encounters with the students' and the students should countersign. This will help to force every lecture allocated to the clinical area to be their hence increasing the time students spend with their lecture. In addition, Kaphangawani and Useh (2017) also recommended that there is a need for structured guidelines to be used by educators regarding clinical supervision.

Furthermore the nursing and midwifery regulatory body needs to have time to supervise how educators are teaching students in the clinical area. Supervising educators in the clinical area will help the regulatory body to note if educators have gaps in terms of knowledge, skills and professional conduct as they are teaching students and act accordingly .Educators in the study done by Nyoni and Botman (2018) stated that educators are not supervised in their work. As a result, they do what they think is right in the clinical area

The participants in the study complained that clinical sites do not match with the number of students. The study recommends that institutions should have talks with private hospitals to allow students to be allocated in their hospitals for their clinical area training. Having a small number of students per site helps them to have time to practice more skills as they are providing

patient care and also educators have time to help students individually,as a result competency is attained

Research

Studies aiming at improving midwifery education are being done in different settings, but still, midwifery education is faced with a lot of challenges. Studies indicate that midwifery education is still being underfunded despite recommendations being made in studies. In this view, I recommend that further studies be done on policymakers on their knowledge of the importance of effective midwifery education. If policy makers are aware of the importance of midwifery education they will lobby for its effective implementation through allocating more funds to its programs.

Educators also need to do further research to prove the link between midwifery education and global maternal death. This will help government and non-governmental organization who are working towards reducing global maternal death to embrace improvement in midwifery education as one of the major strategy in reducing maternal death.

Furthermore, a review that was done from 1990 to 2020 by Kohan et al on-faculty development reported that educators still use traditional methods of teaching students. This study recommends that researchers also look at barriers faced by midwifery educators in using modern teaching methods in the clinical area. Knowing the barriers will help to come up with ways of mitigating them so that educators will not be having barriers in using modern teaching strategies.

Since this study was only done in the northern region midwifery training institutions, other researchers may consider doing the same study in all nursing colleges in the southern and central regions of Malawi.

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APPENDICES

Appendix 1. Data collection instrument

IN-DEPTH INTERVIEW QUESTION GUIDE FOR MIDWIFERY CLINICAL EDUCATOR

Demographic data

Date of Interview: ……..……

Name of Interviewee: …….

Interviewee No. : …….

Age

Actual ag☐25-30

31-35 ☐

36-40 ☐

41-45 ☐

46-50 ☐

51-55 ☐

56-60 ☐

SexMale ☐

Female ☐

Qualification

Diploma ☐

Degree ☐

Masters ☐

PhD ☐

Years of service as a clinical educator

2-5 ☐

6-9 ☐

More than 10 yearsArea of specialization……

In your understanding, who is a midwifery clinical educator?

……

……

What are the characteristics of an effective midwifery clinical educator?

……

……

How did your training help you in your role as a midwifery clinical educator?

……

……

What type of orientation did you receive before taking up your role as a midwifery clinical educator?

……

……

What other roles do you perform at this institution/hospital besides being a clinical educator?

……

……

What are facilitating factors in students' clinical teaching

……

……

What challenges do you face in your course of teaching students?

……

……

What do you think are possible contributing factors to the challenges you are facing?

……

……

How have you been managing the challenges?

……

……

What impact do the challenges you are facing have on the quality of education?

……

IN-DEPTH INTERVIEW QUESTION GUIDE FOR DEANS OF MIDWIFERY FACULTY

Demographic data

Date of Interview ……

Name of Interviewee …….

Interviewee No. …….

Age

25-30 ☐

31-35 ☐

36-40 ☐

41-45 ☐

46-50 ☐

51-55 ☐

56-60 ☐

Sex

Male ☐

Female ☐

Qualification

Diploma ☐

Degree ☐

Masters ☐

PhD ☐

Years on position

2-5 ☐

6-9 ☐

More than 10 yearHow☐o you support your midwifery clinical educator in their role of teaching students?

……

……

How do you support recruits in assuming their role as clinical educators?

……

……

What type of challenges do you face as an institution in helping the midwifery clinical educator perform their role?

……
……

What measures have you put in place to make sure educators have no problems performing their role?

……
……

Are there any hindrances you think they are facing in performing their roles as midwifery clinical educators?

Yes ☐ No ☐

If yes, what are they?

……
……

As an institution what measures have you put in place to solve the challenges faced by midwifery clinical educators?.....

Diploma ☐

Degree ☐

Masters ☐

PhD ☐

Years of service as a clinical educator

2-5 ☐

6-9 ☐

More than 10 yearsArea of specialization……

In your understanding, who is a midwifery clinical educator?

……

……

What are the characteristics of an effective midwifery clinical educator?

……

……

How did your training help you in your role as a midwifery clinical educator?

……

……

What type of orientation did you receive before taking up your role as a midwifery clinical educator?

……

……

What other roles do you perform at this institution/hospital besides being a clinical educator?

……

……

What are facilitating factors in students' clinical teaching

……

……

What challenges do you face in your course of teaching students?

……

……

What do you think are possible contributing factors to the challenges you are facing

……

……

How have you been managing the challenges?

……

……

What impact do the challenges you are facing have on the quality of education?

……

Appendix 2: participant information sheet

Participant information sheet

Dear participant,

My name is Betty Chiphaka a nursing student pursuing my Master's degree in the Department of Nursing and Midwifery from Mzuzu University as part of the requirement for my master's degree I am required to conduct a research study.

You are invited to consider participating in a study on factors influencing midwifery clinical educators in student clinical teaching in northern Malawi.

The aim and purpose of this research are to assess factors influencing midwifery educators in student clinical teaching in northern Malawi

The study will be carried out at Ekwendeni College of Health Sciences (midwifery clinical educators and dean of nursing faculty), St John's Institute for Health (midwifery clinical educators and dean of nursing faculty), and Mzuzu University (midwifery clinical educator and dean of nursing faculty). Labour ward in charge at Mzuzu Central Hospital, Ekwendeni Mission Hospital, and St John's Mission Hospital.

A 30-minute interview using an open-ended questionnaire guide will be conducted at the participant institution. This is a self-sponsored study.

For fear of being labelled for the information you're going to provide, your names will be anonymous.

This study will help to create a good clinical environment for clinical educators as their challenges will be addressed and possible strategies will be shared with participant institutions and other regulatory bodies. This will improve the quality of midwifery education they're by improving the quality of care being provided to patients

Participation in this research is voluntary and you may withdraw from the study at any point. You will not incur any penalty or loss of treatment or another benefit to which you are normally entitled if you refuse or withdraw your participation from the study

During the interview, a tape recorder may be used to record the discussion for write-up purposes. Anonymity will be used at all times during the interview whereby the participant will be given a number or letter for identification purposes. All biographical personal information obtained from you is confidential. During the research write-up, excerpts from the discussion may be used for reference but your name will not be used. All data obtained from you will then be safely stored in a secure safe place in the research supervisor's office for 12 months after which it will be erased/ or shredded

This study has been ethically reviewed and approved by the Faculty of Health Sciences Research Committee and the Mzuzu University Research Ethics Committee.

In the event of any problems or concerns/questions you may contact the researcher at (provide contact details) or the Mzuzu University Research Ethics Committee, contact details are as follows:

Mzuzu University

Private Bag 201

Luwinga

Phone number:

Email:

In the event of any problems or concerns/questions you may contact the researcher at Mzuzu University, Private Bag 201, Luwinga, Mzuzu, my telephone number is 083174528, and my email address is bettychiphaka@gmail.com or the Faculty of Health Sciences Research Committee contact details as follows:

Mzuzu University

Faculty of Health Sciences Research Committee

PMB 201

Mzuzu

+265111401932

Appendix 3: Informed consent

Informed consent form for participant

I _____ have been informed about the study entitled Facilitators and Barriers Faced by Midwifery Clinical Educators in Students Clinical Teaching by Betty Chiphaka, a Master in Nursing Education student at Mzuzu University.

I understand the purpose and procedures of the study.

I have been allowed to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any treatment or care to which I would usually be entitled.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at Mzuzu University, Private Bag 201, Luwinga, Mzuzu, the telephone number is 0997941160, and my email address bettychiphaka@gmail.com.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

Appendix 4: permission letters

4.1: Mzuzu University (MZUNIREC)

MZUZU UNIVERSITY

DIRECTORATE OF RESEARCH

Mzuzu University
Private Bag 201
Luwinga
Mzuzu 2
MALAWI
TEL: 01 320 722
FAX: 01 320 648

MZUZU UNIVERSITY RESEARCH ETHICS COMMITTEE (MZUNIREC)

Ref No: MZUNIREC/DOR/23/76 **26/06/2023.**

Betty Chiphaka,
Mzuzu University,
P/Bag 201,
Luwinga,
Mzuzu 2.

bettychiphaka@gmail.com

Dear Betty,

RESEARCH ETHICS AND REGULATORY APPROVAL AND PERMIT FOR PROTOCOL REF NO: MZUNIREC/DOR/23/76: FACTORS INFLUENCING STUDENT CLINICAL TEACHING BY MIDWIFERY EDUCATORS IN NORTHERN MALAWI.

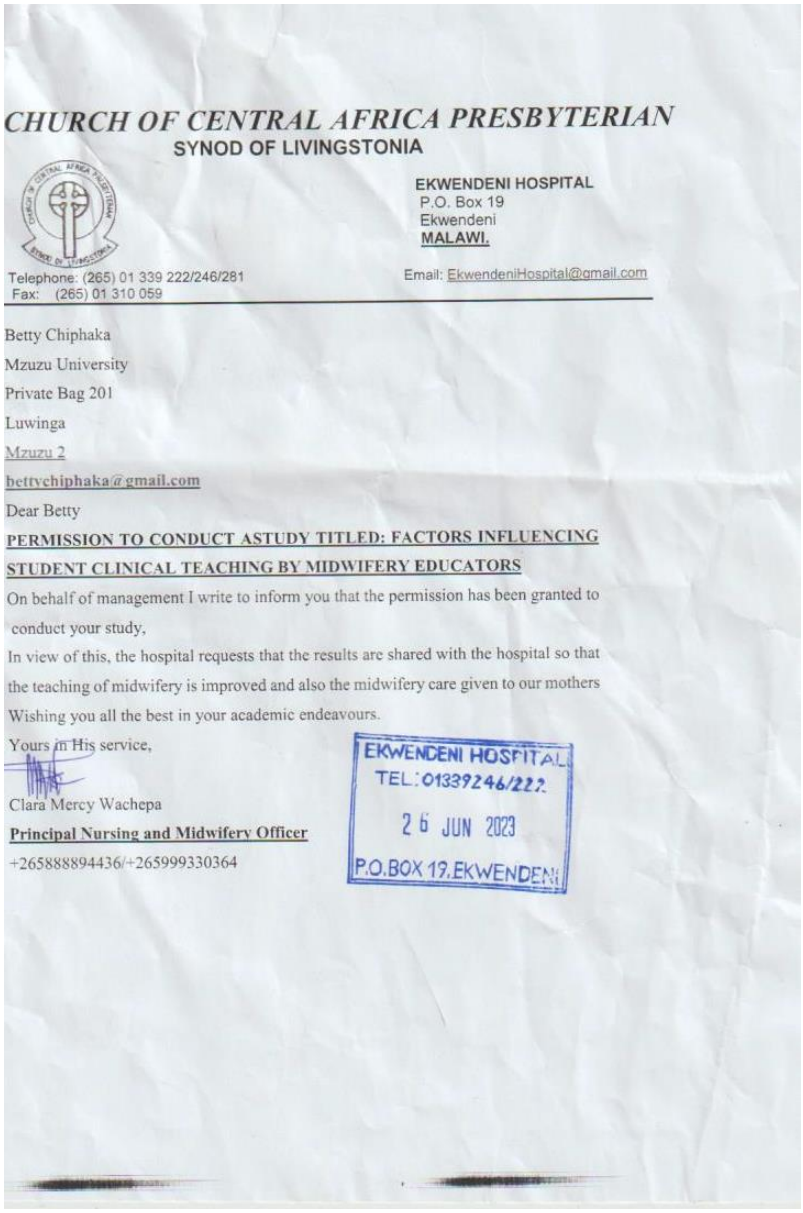
Having satisfied all the relevant ethical and regulatory requirements, I am pleased to inform you that the above referred research protocol has officially been approved. You are now permitted to proceed with its implementation. Should there be any amendments to the approved protocol in the course of implementing it, you shall be required to seek approval of such amendments before implementation of the same.

This approval is valid for one year from the date of issuance of this approval. If the study goes beyond one year, an annual approval for continuation shall be required to be sought from the Mzuzu University Research Ethics Committee (MZUNIREC) in a format that is available at the Secretariat. Once the study is finalised, you are required to furnish the Committee with a final report of the study. The Committee reserves the right to carry out compliance inspection of this approved protocol at any time as may be deemed by it. As such, you are expected to properly maintain all study documents including consent forms.

Wishing you a successful implementation of your study.

Committee Address:
Secretariat, Mzuzu University Research Ethics Committee, P/Bag 201, Luwinga, Mzuzu 2; E-mail address: mzunirec@mzuni.ac.mw

4.2: Ekwedeni Mission Hospital



CHURCH OF CENTRAL AFRICA PRESBYTERIAN
SYNOD OF LIVINGSTONIA

EKWENDENI HOSPITAL
P.O. Box 19
Ekwendeni
MALAWI.

Telephone: (265) 01 339 222/246/281
Fax: (265) 01 310 059

Email: EkwendeniHospital@gmail.com

Betty Chiphaka
Mzuzu University
Private Bag 201
Luwinga
Mzuzu 2
bettychiphaka@gmail.com

Dear Betty

PERMISSION TO CONDUCT ASTUDY TITLED: FACTORS INFLUENCING STUDENT CLINICAL TEACHING BY MIDWIFERY EDUCATORS

On behalf of management I write to inform you that the permission has been granted to conduct your study,

In view of this, the hospital requests that the results are shared with the hospital so that the teaching of midwifery is improved and also the midwifery care given to our mothers

Wishing you all the best in your academic endeavours.

Yours in His service,

EKWENDENI HOSPITAL
TEL: 01339246/222
26 JUN 2023
P.O.BOX 19.EKWENDENI

Clara Mercy Wachepa
Principal Nursing and Midwifery Officer
+265888894436/+265999330364

4.3: Ekwedeni College of Health Sciences

UNIVERSITY OF LIVINGSTONIA

Ekwendeni College of Health Sciences
P.O Box 49, Ekwendeni, Malawi
Tel/Fax: +265(0) 1339 339
Email: principalecohs@unilia.ac.mw

15th July 2023

TO : Ms Betty Chiphaka
Mzuzu University
Private Bag 201
Luwinga

Dear Ms Chiphaka,

RE: YOUR REQUEST FOR PERMISSION TO CARRY OUT A STUDY AT EKWENDENI COLLEGE OF HEALTH SCIENCES.

Reference is made to your letter dated 28th June 2023 in which you requested permission to carry out a study at Ekwendeni College of Health Sciences on *"Factors influencing student clinical teaching by midwifery educators"*. I am pleased to inform you that permission has been granted and you can link up with the Dean of Nursing and Midwifery on 0993805060 or 0888396449 to agree on the date when most of the lecturers are on campus.

Wishing you all the best as you conduct your research study.

Yours sincerely,

Esau. A. Kasonda
COLLEGE PRINCIPAL

4.4 St. John's Institute for Health

ST. JOHN'S INSTITUTE FOR HEALTH

P. O. Box 18
Mzuzu
Malawi
Central Africa

Telephone: (265)311 331
Fax: (265) 311 331
E-mail:
sjih.mw@gmail.com

13th July, 2023

Betty Chiphaka

Mzuzu University

Private Bag 201

Luwinga

Mzuzu 2

Dear Madam

REQUEST TO CONDUCT A STUDY AT YOUR INSTITUTION ON FACTORS INFLUENCINGG STUDENT CLINICAL TEACHING BY MIDWIFERY EDUCATORS

Reference is made to your letter dated 28/06/2023 in which you requested to conduct a research at our institution.

Upon review of your letter, we are glad to inform you that your request has been granted.

Further, we would like to advice that you follow all the procedures required when conducting a research.

THE PRINCIPAL
ST. JOHN'S INSTITUTE FOR HEALTH
13 JUL 2023
P.O.BOX 18
MZUZU

Yours in the Vine Yard

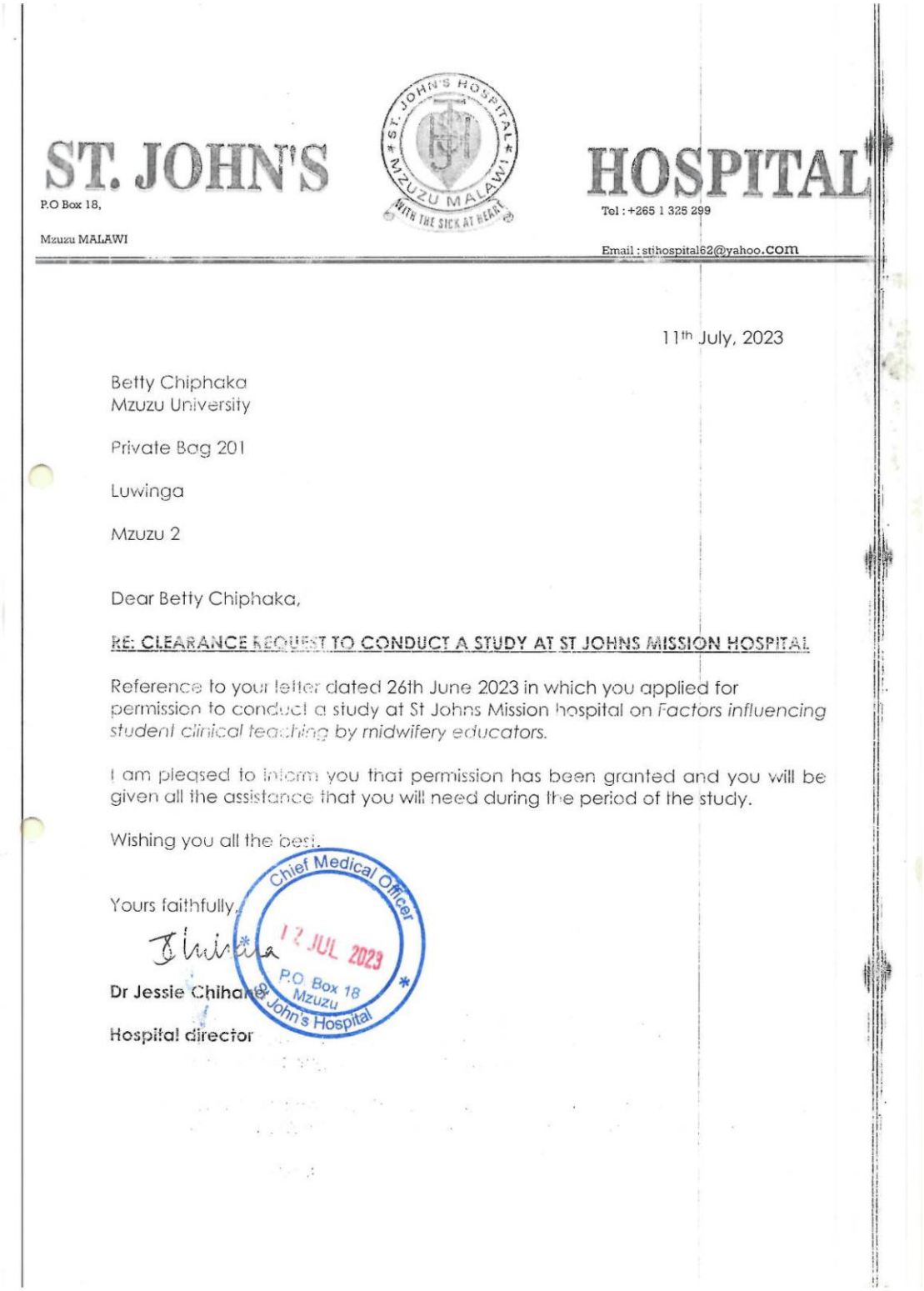
Shouts M. Galang'anda Simeza

shoutssimeza@gmail.com; +265(0)881 429 621; +265(0)991 326 669

PRINCIPAL

1

4.5 St. John's Hospital



ST. JOHN'S HOSPITAL

P.O Box 18,
Mzuzu MALAWI

Tel : +265 1 325 299
Email : stjhospital62@yahoo.com

11th July, 2023

Betty Chiphaka
Mzuzu University

Private Bag 201

Luwinga

Mzuzu 2

Dear Betty Chiphaka,

RE: CLEARANCE REQUEST TO CONDUCT A STUDY AT ST JOHNS MISSION HOSPITAL

Reference to your letter dated 26th June 2023 in which you applied for permission to conduct a study at St Johns Mission hospital on *Factors influencing student clinical teaching by midwifery educators.*

I am pleased to inform you that permission has been granted and you will be given all the assistance that you will need during the period of the study.

Wishing you all the best.

Yours faithfully,

Dr Jessie Chihana

Hospital director

Chief Medical Officer
12 JUL 2023
P.O. Box 18
Mzuzu
St John's Hospital

4.6 Mzuzu Central Hospital

Telephone: 01320916/878
Fax: 320223/320973/878
Email: mzuzucentraldirector@gmail.com

In reply please quote No. ….
The Hospital Director
Mzuzu Central Hospital
P/Bag 209
Luwinga
Mzuzu 2

28th July, 2023

Betty Chiphaka (MSC Student)
Mzuzu University
Private Bag 201
Luwinga
Mzuzu 2

Dear Betty Chiphaka,

PERMISSION TO CONDUCT A RESEARCH STUDY AT MZUZU CENTRAL HOSPITAL

Reference is made to your email received on 2nd March, 2023 in which you are seeking permission to conduct a research study titled ***"Factors Influencing Students Clinical Teaching by Midwifery Educators in Northern Malawi"*** at Mzuzu Central Hospital (MCH). MCH Research Committee has now reviewed your study ethical clearance and I am pleased to inform you that permission has been granted. You can use this letter as evidence of support from an institution (MCH) when seeking ethical clearance from COMREC/NHSRC/NCST or any other recognized Institutional Review Board (IRB).

Note: Please take note that MCH policy requires that you pay a financial contribution to the institution which is pegged at 5% of your total research budget before you can start implementing your study at the facility. If the study will be implemented in multiple sites an appropriate amount shall be determined taking into account the number of sites in which the study is to be implemented. Payment is strictly through National Bank of Malawi, Mzuzu Central Hospital Research and Partnership Account, Current account number **1004797902**.

When you are ready for data collection at MCH you will be required to present this letter, ethical approval letter from a recognized ethical review body and evidence of payment of the stipulated fees to the Chairperson of MCH Research Committee before you can begin data collection. We trust that you shall strictly adhere to study procedures as outlined in your study protocol.

MZUZU CENTRAL HOSPITAL
31 JUL 2023
PRIVATE BAG 209
MZUZU 2

Dr Ted Bandawe
The Hospital Director

5 Clearance Letter to collect Data

MZUZU UNIVERSITY

OFFICE OF THE UNIVERSITY REGISTRAR

Private Bag 201
Luwinga
Mzuzu 2
MALAWI
Tel.: (265) 01 320 722/575
Fax: (265) 01 320 505
E-mail: ur@mzuni.ac.mw

Ref: MU/1/A9 **11th September, 2023**

Ms. Betty Chiphaka
C/O Mzuzu University
Private Bag 201
Luwinga
MZUZU 2

Email : bettychiphaka@gmail.com

Dear Ms. Chiphaka,

RE: CLEARANCE TO COLLECT DATA AT MZUZU UNIVERSITY

Reference is made to your letter dated 28th June 2023, seeking approval to collect data at Mzuzu University.

I wish to inform you that the request has been granted having fulfilled all the ethical requirements by the department of Research at Mzuzu University. Your research is on "on factors influencing student clinical teaching by midwifery educators". You may proceed with your research.

We are ready to offer any kind of assistance that you may require at any time.

Yours sincerely,

CHRISTINE MAKAMO
FOR/UNIVERSITY REGISTRAR

Cc : Vice-Chancellor
: Deputy Vice-Chancellor