



**FACTORS THAT CONTRIBUTE TO EFFECTIVE CLINICAL TEACHING OF
STUDENT NURSE/MIDWIFE TECHNICIANS IN MALAWI**

MSc (Nursing and Midwifery Education) Thesis

By

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Declaration

I, the undersigned, hereby declare that this thesis is my own original work which has not been submitted to any other institution for similar purposes. Where other people's work has been used acknowledgements have been made.

Full Legal Name

Signature

Date

Certificate of Approval

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

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Dedication

To my husband James and children, Francis, Innocent, Janet and the twins James Junior and Jacqueline, I am proud of you. Special dedication should go to my mother Annie, late father and my mother in-law Lydia Nyankhata for the moral support given to me as I was doing my studies.

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Abstract

Clinical teaching is an essential task in the production of competent nurse/midwife technicians. There is the increased disease burden in Malawian hospitals in the face of the shortage of nursing staff and at the same time there is increased student intake in nursing colleges with inadequate faculty members (Muula & Maseko, 2005). All these factors negatively affect clinical teaching.

A quantitative, descriptive cross sectional design in data collection and analysis was used to investigate factors that contribute to effective clinical teaching of student nurse/midwife technicians in Malawi. Structured questionnaires were used on 130 nurse educators who consented to take part in the study. A response rate of 94% was achieved. SPSS version 19.0 was used to analyse the data. Results of this study revealed the factors that contribute to effective clinical teaching as: clinical teaching environment (79.9%, n=104), use of innovative clinical teaching methods(18.6%, n=24), adequate clinical teaching resources (10.2%, n=13), small number of nursing students (71.2, n=93), year of study (44.1%, n=57) and learning outcomes for the clinical setting (54.2%, n=70). Among the recommendations is empowering nursing students to actively participate in their own learning and evaluation of own achievement of clinical objectives as these are critical to their development as competent, self-directing professionals, capable of assuming responsibilities inherent in the ever-changing and expanding health care system.

Table of Contents

| | |
|---|-------------|
| Abstract..... | v |
| Table of Contents | vi |
| List of Abbreviations | ix |
| Definition of Terms | x |
| List of Figures..... | xii |
| List of Tables | xiii |
| CHAPTER ONE | 1 |
| INTRODUCTION AND BACKGROUND INFORMATION..... | 1 |
| Introduction..... | 1 |
| Background information | 3 |
| Statement of the problem..... | 7 |
| Justification | 7 |
| Specific objectives | 8 |
| Conclusion | 8 |
| CHAPTER TWO | 9 |
| LITERATURE REVIEW | 9 |
| Introduction..... | 9 |
| Experimentalism | 21 |

| | |
|--|-----------|
| Application of Experimentalism to effective clinical teaching | 23 |
| Conclusion | 25 |
| CHAPTER THREE | 26 |
| RESEARCH DESIGN AND METHODOLOGY | 26 |
| Introduction | 26 |
| Research design | 26 |
| Research setting and study population | 27 |
| Inclusion and exclusion criteria | 27 |
| Pretesting | 29 |
| Validity | 29 |
| Data analysis | 30 |
| Data management | 30 |
| Dissemination of results | 30 |
| Ethical considerations | 31 |
| CHAPTER FOUR | 33 |
| PRESENTATION OF FINDINGS | 33 |
| Introduction | 33 |
| Clinical teaching factors | 34 |
| Factors that hinder effective clinical teaching in general | 40 |
| CHAPTER FIVE | 43 |
| DISCUSSION OF FINDINGS | 43 |

| | |
|---|----|
| Introduction | 43 |
| Teaching strategies in clinical area | 51 |
| Recommendations | 62 |
| Limitations | 64 |
| Issues for further study | 65 |
| References | 67 |
| Appendices | 79 |

List of Abbreviations

| | |
|--------|---|
| AIDS | : Acquired Immune Deficiency Syndrome |
| CHAM | : Christian Health Association of Malawi |
| COMREC | : College of Medicine Research and Ethics Committee |
| HIV | : Human Immunodeficiency Virus |
| KCN | : Kamuzu College of Nursing |
| MCHS | : Malawi College of Health Sciences |
| MOH | : Ministry of Health |
| NMCM | : Nurses' and Midwives' Council of Malawi |
| NMT | : Nursing and Midwifery Technician |
| PBL | : Problem Based Learning |
| RNM | : Registered Nurse/Midwife |
| SDL | : Self Directed Learning |
| SPSS | : Statistical Package for Social Sciences |
| WHO | : World Health Organisation |

Definition of Terms

Nursing education

Nursing Education is the process of acquiring the necessary knowledge, skills and attitudes to enable the nurse to be qualified, safe and competent in the implementation of nursing process and promoting adaptation in a patient (Quinn & Hughes, 2007). The goal is to produce knowledgeable, competent professional nurses and midwives who will promote the optimal health of individuals, families, groups, and communities.

Clinical objectives: Intended learning outcomes to be achieved by the end of each clinical placement. According to Oermann and Gaberson (2006) objectives play a role in teaching and evaluating students in varied settings in nursing. They provide guidelines for student learning and instruction.

Clinical teaching: A series of deliberate actions on the part of the teacher to guide students in their learning. The teacher is a resource person with information to share for the purpose of facilitating learning and acquisition of new knowledge and skills.

Clinical teaching factors: These are useful issues that play a part in effective clinical teaching which include departments where educators mostly belong, areas of interest of educators and number of students the nurse educator supervises per clinical placement.

Clinical practice: A deliberately planned sequence of actions carried out by highly skilled individuals in response to particular needs of clients and clinical nursing practice as the integration of knowledge and skills which contribute to the character and development of practice. Throughout this study, the term clinical practice shall mean

performance of clinical nursing skills and activities in the real clinical setting pertaining to nursing profession including patients' or clients' care.

Effective clinical teaching: Effective clinical teaching are those actions, activities and verbalisations of the clinical instructor which facilitate student learning in the clinical setting. It is the ability of the clinical nurse educator to apply different types of knowledge to enhance nursing students' learning. Can also be defined as an extent to which it produces intended learning outcomes (Gaberson & Oermann, 2007).

The nurse: A safe, caring, and competent decision maker willing to accept personal and professional accountability for his/her actions and continuous learning.

Nurse educator: A nurse who has been academically and professionally trained to provide nursing education to nursing students in order for them to become competent practitioners. The term nurse educator will be synonymous to nurse tutor, clinical teacher and lecturer.

Student Nurse-Midwife Technician : An individual who has enrolled in nursing training institution studying to be a nurse. These students have been indexed by Nurses' and Midwives' Council of Malawi. In this study it will be synonymous with learner.

List of Figures

| | | |
|-----------|--|----|
| Figure 1 | : Reasons for the clinical teaching frequencies | 34 |
| Figure 2 | : Ideal clinical teaching sites..... | 36 |
| Figure 3 | : Percentages of how far student are allocated..... | 37 |
| Figure 4. | : Factors that facilitate effective clinical teaching..... | 38 |
| Figure 5 | : Factors that hinder effective clinical teaching..... | 38 |

List of Tables

| | | |
|---------|---|----|
| Table 1 | Demographical data for nurse educators..... | 30 |
| Table 2 | Clinical teaching factors..... | 35 |
| Table 3 | Characteristics of effective clinical teachers..... | 38 |

CHAPTER ONE

INTRODUCTION AND BACKGROUND INFORMATION

Introduction

Effective clinical teaching are those actions, activities and verbalisations of the clinical instructor which facilitate student learning in the clinical setting. It is the ability of the clinical nurse educator to apply different types of knowledge to enhance nursing students' learning. Can also be defined as an extent to which it produces intended learning outcomes (Gaberson & Oermann, 2007). A study conducted by (Msiska, Smith, & Fawcett (2013) revealed that there is a tendency among some nurses to shout at patients and display negative attitudes towards patients. Globally, nursing and midwifery education is aimed at the individual and professional development of the nursing students (O'Connor, 2006). The development of competent future nurse /midwife technicians workforce is strongly influenced by the nursing students' educational experiences. The responsibility for providing realistic and high quality nurse/midwife technicians' education is shared by both education and practice. Despite nurses sharing a common professional history, internationally, their educational preparation, regulation, and practice patterns are highly diverse and vary considerably in complexity and scope. Because of these world-wide differences, the skill mix of the nursing workforce is also diverse. The globalisation of the nursing workforce must be viewed not only within the context of the health status of nations, government investment in health budgets, nurse/health care migration, economic

realities, and working conditions but also within the context of the diverse preparation and practice of its practitioners.

Although hospitals are chiefly viewed as institutions that provide care to patients/clients, they also have other functions such as providing resources for health-related research and teaching (Kachiwala, 2007). Furthermore, hospitals are venues where students from various health disciplines acquire and practice their knowledge and skills. Nursing students are required to practice in a range of hospitals during their training so that the knowledge acquired in the classroom can be put into practice and that after they have graduated, they may be able to practice safely. Nursing education aims at developing nurse/midwives who are able to carry out nursing and midwifery tasks, solve problems and exercise independent clinical judgement in clinical settings. Furthermore, it prepares individuals to be competent practitioners who will be able to provide quality health care and promote health of the people they care for (Ironside & McNelis, 2010).

Clinical area is an environment that enables nursing students to understand the integrated nature of practice and to identify their learning needs and opportunities to take responsibility, work independently and receive feedback on their practice. The quality of the clinical teaching environment can be influenced by a ward area where staff are valued, highly motivated and deliver quality patient care, supportive relationships, good staff morale and a team spirit, good communication and interpersonal relations between nursing staff and students, and acceptance of the student as a learner who can contribute to the delivery of quality patient care (Kachiwala, 2007).

Macfarlen, Milliken, Ouellet, Thrasher, Gartner, Harder, and Cox (2007) state that clinical practice helps to prepare nursing students for the work they will do as practicing

nurses. It allows students to become socialized into the norms and culture of the nursing profession (Fitzgerald, Gordon, Katz, & Hirschet, 2011). This indicates the importance of clinical practice in nursing education. Therefore, teaching in the clinical practice should be effectively facilitated in order to adequately prepare nursing students for the work they will do after qualifying. In order to become competent practitioners, nursing students need to be guided and supervised. Clinical teaching competency is a professional necessity which ensures that qualified nurse/midwives' knowledge, skills and attitudes are effectively transmitted from experts to students (Billings & Halstead, 2012).

Background information

Despite changes that have taken place in health care systems, few changes have occurred in clinical nursing education. High patient acuity and great needs for skilled technical nursing care make demands for clinical competence among newly graduated nurses across the country an on-going concern (Matsumura, Callister, Palmer, Cox, & Larsen, 2004; Orsolini-Hain & Malone, 2007). Muula and Maseko (2005) state that there is increased disease burden in Malawian hospitals, increased student intake in nursing colleges, shortage of nursing staff at the hospitals and shortage of nurse educators in colleges. It has been well-documented that the nursing profession faces a serious shortage of nursing faculty (Potempa, Redan, & Anderson, 2008) that has dramatic implications for, and is a threat to, the future of nursing. The shortage of experienced nursing faculty, worldwide, adds to the challenge of establishing and maintaining standards (Blythe & Baumann, 2008).

Malawi is characterized by a heavy burden of disease evidenced by high levels of child and adulthood mortality rates and high prevalence of diseases such as tuberculosis,

malaria, HIV/AIDS and other tropical diseases (WHO, 2014). Evidence suggests that there is a growing burden of noncommunicable diseases. With a total fertility rate of 5.7 the country has one of the highest population densities in sub-Saharan Africa. Malawi faces a number of challenges including inadequate finances to support poverty reduction programmes; high levels of illiteracy; and critical shortage of capacity in institutions implementing development programmes.

Malawi has been experiencing shortage of nurses in hospitals and the nurse/patient ratio is at 0.59 nurses per 1,000 people (WHO, 2006). To lessen the impact, the government with support from donors and other partners, intensified on the increased intake of students in the nursing colleges. In response to this challenge, the colleges have doubled and some have tripled their enrolment since 2004 (MOH, 2004). As a result it is incumbent on the nursing colleges providing nursing training to be responsible for the coordination of theoretical and clinical training throughout the entire study programme. Raisler, O'Grady, and Lori (2003) also add that large numbers of students make supervision difficult; they crowd the wards, decrease the number of procedures performed by a student and reduce learning opportunities. These can have a negative impact on student learning and therefore the quality of the learning environment and clinical supervision that students receive may be compromised. As a result nursing students may graduate with inadequate clinical skills.

In Malawi, the Nurses' and Midwives' Council of Malawi (NMCM) as a regulatory body sets standards for nursing education (NMCM, 2008). These standards are stipulated in the curricula as outcomes for each programme. By completion of the programme, the Nurse Midwife Technician (NMT) students are expected to demonstrate competency and

the ability for making appropriate clinical judgment in the provision of nursing and midwifery care before being registered with NMCM. NMCM stipulates the requirements for clinical placements and clinical sites to ensure optimal teaching for students. Additionally, it is a requirement that Registered Nurse/Midwives (RNs) should assist in students' learning in the clinical setting (NMCM, 2008). In response to these requirements and due to increased number of nursing students, colleges send students to clinical sites far from the colleges. Poor communication between hospitals and training institutions about training matters leads to poor clinical teaching. Billings and Halstead (2012) found that nursing and midwifery managers only want the work to be done and do not take the training needs of students into account. When going to the clinical areas students are given clinical objectives to guide their learning. Attainment of the clinical objectives presumes that students have acquired the skills to be competent nurse/midwives. The students are guided by the clinical staff and clinical facilitators who are assigned to students in several wards. Faculty from colleges divides clinical departments so that each educator takes responsibility of the allocated wards. However, on completion of the programme some nurse/midwife technicians are incompetent and lack the critical skills of the nursing profession (NMCM, 2008). This raises the question on the effectiveness of teaching particularly when it comes to clinical practice. A poorly trained nurse may not only hamper the team's effectiveness but also lead to low quality health care. Therefore, there is a need to investigate from nurse educators' perspective whether there is effective teaching and then, after findings develop strategies that will facilitate teaching in the clinical practice. The researcher's interest in nursing/midwifery education and, in particular, the

desire to examine the clinical teaching of NMT students has motivated her to undertake this study.

Apart from learning the skills, clinical practice allows students to have direct experience of the real world of nursing, learn about general nursing routines, the responsibilities of the nurse and allows nursing students to develop interpersonal relationship with others. Although the number of student nurse/midwife technicians has increased, the number of tutors has remained almost the same (Muula & Maseko, 2005). This situation reduces learning opportunities for students since the nurse educators will be responsible for a big number of students whom she/he cannot assist at the same time. This shortage has limited the available nurse educators to classroom teaching. According to the NMCM, the recommended nurse educator/student ratio for nursing and midwifery in colleges is one to fifty in classroom (1:50), one to ten students (1: 10) in general nursing and one to five (1:5) in midwifery (Caffrey & Frelick, 2006) which is not the truth on the ground.

Nursing knowledge is positioning itself to provide visions that can create effective responses to the issues facing health care (Roy & Jones, 2007). The vision that nursing knowledge brings to the challenging issues of nursing practice are based on principles and values for creating effective practice systems. Nursing is a human practice discipline that facilitates well-being of individuals, families, and communities using a scientific knowledge base within caring relationships. In a pre-test study done by Williams and Taylor (2008) on use of innovative clinical teaching methods, findings implied that the Rogers innovation-decision process can be used to further study the adoption of innovative

teaching strategies in clinical nursing education, building an evidence base upon which nurse educators can draw as they consider using new teaching strategies.

Statement of the problem

Clinical teaching is an essential task in the production of competent nurse/midwife technicians. There is an increased disease burden in Malawian hospitals in the face of the shortage of nursing staff and at the same time there is increased student intake in nursing colleges with inadequate faculty members (Muula & Maseko, 2005). All these factors negatively affect clinical teaching. It is this situation which prompted the researcher to conduct a study on effective clinical teaching of student nurse/ midwife technicians in Malawi considering on the prevailing situations mentioned above. Shortage of nurses a worldwide problem (Quattrin et al., 2008) is also experienced in Malawi with a vacancy rate of 65% (PEPFAR, 2012) which affects clinical teaching as nurse educators hardly find adequate time to help nursing students in the clinical area. A poorly trained nurse is not competent in the practice, may not only be ineffective in the health care team but may also provide poor quality care, be unsafe to patients, lead to loss of lives and being frustrated (Benner et al, 2009; Cheraghi et al, 2008). In this situation, the extent to which effective teaching prepare nursing students for clinical practice after qualifying needed to be investigated in Malawi.

Justification

No research findings have been found on wards in Malawi on the factors that could contribute to effective clinical teaching of student nursing/midwifery technicians. It is imagined that investigating the factors that might contribute to the effective clinical teaching would assist to identify the problems in order to improve student education in

the clinical field. Assisting nurse/midwifery tutors and clinical instructors to do effective clinical teaching would indirectly influence the quality and standard of clinical teaching, and better equip nurse/midwives on completion of the course.

Broad objective

To investigate factors that contribute to effective clinical teaching of student nurse/midwife technicians in Malawi.

Specific objectives

The following objectives guided the conduct of this study:

1. To identify factors that contribute to effective clinical teaching.
2. To identify commonly used clinical teaching strategies.
3. To investigate characteristics of effective clinical nurse educators
4. To investigate challenges experienced by nurse educators during clinical teaching.
5. To identify strategies that can help to address the investigated challenges.

Conclusion

In this chapter, an overview of the study was provided. The problem and research questions, significance of the study, purpose and objectives of the study were stated and study concepts were defined. In the next chapter, the literature that was reviewed concerning clinical teaching of student nurse/midwife technicians will be described.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Literature review is defined as a process of searching, finding, reading, understanding and forming conclusions about published research and theory on a particular subject (Brink, 2003). This chapter presents the literature that was reviewed to come up with what is known on the topic of the study. This review focuses on literature and previous studies that have been done relating to effective clinical teaching. The purpose of this review was to gather and synthesize literature related to effective clinical teaching of student nurse/midwife technicians, clinical teaching strategies, characteristics of effective clinical teachers, and factors that facilitate effective clinical teaching. Relevant literature for this study was sourced using the computerized databases EBSCOhost, Cumulative Index in Nursing and Allied Health Literature (CINAHL), Academic search elite, Pubmed, ScienceDirect, Google Scholar, Medline and Synergy. Manual searching of relevant nursing journals and sourcing of secondary references extended the search. Government reports and other relevant documents were obtained through pertinent websites.

Search terms used

The search terms used were: nursing education; effective clinical teaching; clinical teaching strategies; nurse educator challenges of clinical teaching and strategies to improve clinical teaching.

Factors that contribute to effective clinical teaching

Kelly (2007) states that clinical education/ teaching is the vehicle used by the nursing and midwifery faculty who are often referred to as clinical educators and their important role is to take the students through knowledge and skill acquisition in the clinical field. They provide students with the opportunity to translate theoretical knowledge into the learning of a variety of skills required to give patient-centred care. Many models of practice exist in relation to teaching and supporting students in clinical practice.

Clinical teaching strategies and Models

An effective clinical teaching method depends on the skills to be taught, student level of study, competence of the nurse educator, availability of resources, clinical teaching area, number of nursing students on the placement and period of placement (O'Connor, 2006). Further, Phillips & Vinten (2010) indicate that innovative teaching strategies are defined as those that embrace the views of socio-cultural theory, a student-centred approach whereby the role of the nurse educator is to motivate and support the student and, in a mutual process, to push students to reach toward their learning potential by using techniques that can be erected or gradually reduced based on the individual student's learning needs. Some of the clinical teaching strategies and teaching models have been discussed below.

Role play

Gaberson and Oermann (2007) noted that role play is particularly appropriate for objectives related to building patient, peer, and health care provider interpersonal

relationships. Role play is used to help students develop decision-making and problem solving skills, increase interpersonal skills, and increase cultural awareness. In addition Billings and Halstead (2012) found that the student ought to be informed of the concept to be role played and given time for creative expression. However, some students may be ashamed to perform in the role play which may not give a true picture of the play. Upon termination of role play, all student participants should analyse what occurred, what feelings were generated, what insights were gained, why things happened as they did, and how the situation is related to reality.

Mentorship Model

Jokelainen, Turunen, Tossavainen, Jamookeeah, & Coco, (2011) conducted a systematic review of the mentoring model in nursing students in the clinical education environment and found that ‘mentoring’ is a “vague” concept in undergraduate nursing placements (p. 2854). On the contrary, Bulut, Hisar and Demir (2010, p. 756) claimed that mentoring is an important strategy for providing “...support, encouragement and professional vision” for students. In mentorship students ought to learn vicariously as they observe the mentor perform nursing care activities however some students may not be interested with the skills that are their own learning opportunities. It is against this background that Jokelainen et al. (2011) argued that the mentoring model needs to be further defined and developed to help improve the quality of the clinical education environment for nursing students. Sometimes mentors are selected on the basis of their willingness to participate and their availability to meet nursing students on a regular basis. Mentoring might also be done by peers where the peer mentoring role is

developmental and supportive, but not evaluative. Nursing students are encouraged to choose a nursing student whom they trust and respect to be a peer mentor.

Preceptorship Model

The preceptor model is a common clinical supervision model used to help nursing students develop their professional knowledge and skills to prepare them for clinical practice as graduate nurses (Altmann, 2006; Billay & Myrick 2008; Udliis 2008). The effectiveness of the preceptor model are the attributes of the preceptor in terms of their own clinical knowledge, skills and their own attitudes towards nursing students so as to achieve a positive clinical learning environment. However, there are limitations according to the studies undertaken by Altmann (2006), Billay and Myrick (2008) and also studies by Callaghan et al. (2009), Henderson et al. (2006), Lillibridge (2007) and Udliis (2008) who did not address the concepts pertaining to the perceived increased clinical workloads of nurses and the actual willingness of the nurses to be preceptors. Furthermore, due to critical shortage of nursing staff being a preceptor does not really work as the preceptor may also have patients to care for and students may need the same preceptor to help them perform a skill. Attributes of the preceptor sometimes may not really be favourable to the nursing students since they may not choose a preceptor of their choice. So with shortage of clinical staff the one found on the clinical site may just be picked as a preceptor.

Students place great value on one- on-one engagement with their preceptors to facilitate and achieve their clinical education needs especially students in the first placement. Croxon and Maginnis (2009) claimed that the preceptor model is not always the preferred clinical supervision model due to the knowledge, skills, attitudes and the behaviours of preceptors. Some clinical placement sites often feel that students are there

as an extra pair of hands and to lighten the workload rather than undertaking a clinical placement for their professional development and preparing them as graduate nurses. Another worthy consideration regarding this concept was how Twentyman, Heel, and Lloyd (2006) found that ‘novice’ nursing students favoured the preceptor model compared to the more ‘proficient’ nursing students who preferred the facilitation model as these students were considered more self-directed and more familiar with the clinical environment.

Supervision

Supervision is a process based on clinically focused professional relationship between the practitioner engaged in clinical practice and a clinical supervisor (Bradshaw & Lowenstein, 2011). Clinical supervision is the most commonly used teaching and learning method for the development of core competencies in nursing education. It allows nursing students to focus on personal and professional strengths and difficulties. Baxter (2007) postulated that the objectives of clinical supervision are to support and enable the student to provide competent nursing care, to ensure patients’ safety, to develop relationships with clinicians, as well as to promote the transfer of knowledge from the classroom to the clinical setting, and hence to integrate theory and practice. As the educator supervises nursing students to perform a skill, it gives the educator a chance to evaluate the student so as to help a student where the skill is not well done. The educators’ presence may also help students to have confidence when the educator is watching so that if a skill is not done well the educator will be there and then to help the student make corrections.

Role modelling

Nursing is considered to be an applied science (Hayajneh, 2010). Thus clinical teaching is central to nurse education, where the learning situation often cannot be repeated. It is ideal to identify motivating behaviours of role model clinical instructors that enhance students. Role model clinical educators positively affect students' learning in the clinical setting and should be able to create a warm environment, that is not threatening, and create conditions to motivate better clinical teaching. In addition, a nurse educator should be easy to approach and do his or her best to make students feel comfortable while practicing in the clinical setting. Role models help students to acquire and practice clinical skills in a safe, supportive environment with both positive and negative feedback about performance, orients the student to the clinical setting and creates a relaxing atmosphere. In addition, the role model must be available when needed, takes immediate and appropriate action in case of emergency, acts as students' advocate and supports students' learning, thus he or she ought to be knowledgeable and resourceful.

Characteristics of effective clinical teachers

According to Tang, Chou, & Chiang (2005) the exploration of effective characteristics provides insight into improvement of educational programs for developing nurses. Teaching ability of educators is the process of transmission of skills and attitudes; the creation of an environment that enables learning which include instructional skills, and creating a positive learning environment that promotes learning. In order to prepare students for the professional nursing role, nursing education programs must provide clinical experience along with theoretical knowledge. Student participation in clinical

practice is often the most important portion for acquiring new nursing skills (Moscaritolo, 2009).

Students have a small amount of time in the clinical setting to learn skills, apply theory, and develop critical thinking necessary for the professional role. This is mostly because the contact that the students have with the nurse educators is inadequate bearing in mind that educators have other responsibilities apart from clinical teaching. Therefore, clinical teachers must be effective during the small period of contact with students in the clinical placement in order to provide the best learning experiences for each clinical situation. Ultimately, clinical teacher characteristics that have a positive effect on student outcomes must be identified and utilized.

Tang, Chou, & Chiang, (2005) also indicate that educators are also responsible for ensuring patients receive high quality, secure, and safe nursing care. Though not directly providing care to patients, nurse educators have a role to make sure that patient care is not compromised as students carry out their nursing skills practice on patients. For these reasons, it is imperative that clinical teachers possess the skills and strategies to create clinical experiences conducive to learning and patient safety. On the contrary, Eleigil & Sari, (2008) found that even students expect clinical educators to be advisors, guides, and to offer information and explanations about clinical situations. Therefore, the nurse educator must be able to isolate teaching skills that will help the nursing students achieve the objectives of the clinical placement.

Nursing is a practice- based discipline and is measured in terms of clinical competence (Lee, Cholowski, & Williams, 2002). In addition, Tang et al.(2008); Wolf,

Bender, Beitz, Wieland, & Vito,(2004) advanced that nursing competence is the clinical teachers' theoretical and clinical knowledge used during nursing practice, and includes the instructors' attitude toward the profession which involves taking interest in the patients' care, serving as a role model for students, and demonstrating skilful use of nursing techniques.

How well clinical educators evaluate students and how they provide feedback in clinical practice settings is an important aspect of clinical teaching effectiveness. O'Connor (2006) identified the role that evaluation plays in both the teaching and learning interaction and motivation. How the evaluation is given to students is important, particularly in terms of self-esteem, and this is common across cultures. Almost everyone feels good with positive feedback and even if it is negative depending on how the feedback has been given.

Nurse educators facilitate learning and identify learning needs and interventions geared towards the development of nursing students' knowledge and skills in clinical settings. Smith and Fitzpatrick (2006) stated that leaders in academic nursing and midwifery should plan and try to balance their busy schedule to include teaching, writing, researching and advising students at all levels. In their view, it is important to have priorities that benefit the greatest number of people like nursing and midwifery students. Nurse educator should always be available for nursing students for correction and comment, encouragement, praise and assistance in preparing for difficult and new situation. Nurse educators should deal with students as mothers guiding, supporting, sustaining, translating, reinforcing, transforming and releasing their students through the clinical experience continuum.

To ensure that the content is suitable to a diverse group of learners, an effective teacher has the capacity to transform his or her content knowledge (O'Connor, 2006). Good teachers must know how to transform their knowledge into effective examples, explanations, illustrations and activities. They can promote successful experiences and increase students' confidence. Furthermore, teaching strategies used by the clinical teachers may have a profound effect on students' learning and professional role development. And so clinical teaching is carried out by clinical teachers with varying academic qualifications, clinical experience and familiarity with the college's philosophy and curriculum.

Bergman and Gaitskill (2009) emphasized that special attention be given to preparing the clinical teachers to relate underlying theory to clinical practice. To enhance retrieval and transfer of learning at a later date, it is crucial that careful sequencing of content and instruction be planned. Educators from the college can promote successful experiences and increase students' confidence. The best way to ascertain that learning can be transferred to the clinical situation is by provision of adequate experience with the original task. In addition that is also why clinical placements are chosen for specific learning experiences like family planning. The more practice students have, the better the eventual performance will be. Students must be provided with extra practice time to enable them to develop a memory representation of the skill. This practice is desirable to achieve effective transfer of learning.

Kelly (2007) compared student perceptions of effective clinical teaching in two groups of students 14 years apart. Although the terminology differed between the two groups due to the time lapse between the two measures, the findings indicated very

similar perceptions. The students' view of an effective clinical teacher was one who was knowledgeable of both teaching pedagogies and clinical practice, had good communication skills, was a good listener and was available to students which Kube (2010) also supports as effective.

In a study by Hanson and Stenvig (2008), students identified three attributes of a good clinical nursing educator. These were knowledge, interpersonal relationships with students, and use of appropriate teaching strategies. A knowledgeable clinical teacher knows how to convey the knowledge to students in a meaningful way. This indicates the clinical teacher's competence which can be done by demonstrating skills, attitudes and values that are to be developed in the students in the clinical area.

Since it is impossible for faculty to teach everything that future nurses will encounter, nurse educators must be skilful in deciding what information is essential and how to teach it (Speziale & Jacobson, 2005). Nursing students' experiences in the clinical learning is very important in the teaching and learning of nursing education because this gives them the feel for the nursing profession. Effective teaching is achieved when the nurse educator structures learning in a dynamic and creative manner so that the student gains insight. Furthermore, effective teaching results in effective learning if nurse educators are knowledgeable and use different teaching strategies to obtain the expected learning outcomes (Bradshaw & Lowenstein, 2011).

Empathy and compassion are also characteristics of the clinical educators that have an impact upon the nursing students enabling them to adapt to the care routines (Billings & Halstead, 2012). There is a close link between empathy and affection for nursing. Clinical educators feel affection for nursing and have empathy for patients and

therefore enjoy caring for patients. Effective educators enjoy both nursing and training. They reflect critically on nursing education, identify variables that have an impact upon their job, and have an overview of nurse education. Compassionate clinical educators who are also keen on their profession are fully able to put theoretical knowledge into practice (O'Connor, 2006). They provide guidelines for students' learning and instruction. The objectives also represent the outcomes of learning such as the acquisition of knowledge, development of values and performance of psychomotor and technological skills. Furthermore, they also act as a tool for clinical evaluation leading to easy acceptance of results by students. In addition, they help to identify learning difficulties among nursing students hence assisting them accordingly. Objectives also act as a communicating tool to nursing professionals and other professionals on what students need to attain during clinical practicum (Oermann & Gaberson, 2007). As such, the notion that students go to clinical area to work rather than learn can be easily reversed. This then entails that clinical teachers need to clearly set and define objectives before students are sent for clinical practicum which is mostly done by nursing colleges.

Effective nurse educators are also likely to produce competent nurse /midwife technicians. Educators cannot guide student learning in clinical practice without being competent themselves. Clinical competence is an important characteristic of effective clinical teaching in nursing and midwifery (Tang et al., 2005). Teachers need to be experts in their clinical specialty, maintain their clinical skills, be able to explain and demonstrate nursing care in a real situation, and guide students in developing essential clinical competencies. Teaching skills involve diagnosing learning needs and being sensitive to them, planning instructions in terms of learner characteristics and goals to be

achieved. In addition the educator must present information in an organized way, facilitating learning in various ways and evaluate learning. Only skilled teachers have the capability to demonstrate, emphasize procedures and care practices in an orderly manner.

The nurse educators' responsibility is also to ensure good interpersonal relationships among all stakeholders in the clinical area. These include student-student, student-staff, educator-staff and student-educator relationships. To begin with, student-student relationship is very vital in consolidating theoretical work to clinical practice (O'Connor, 2006). For instance, a student can easily assist a fellow student on setting of drug trolley only if they are in good terms. On this part, the clinical teacher always needs to promote teamwork among students for their own good. Similarly, student-staff relationship is also important considering that students go to practical area as strangers and therefore a warm welcome by nursing staff is very encouraging. This means that if the relationship with students is bad, learning never takes place. Similarly student-educator relationship is essential as she/he acts as resource person from whom students seek further advice. He also advocates for material resources to meet learning needs. Therefore promotion of learning depends on stronger communication links among mentors, tutors and practitioner teams.

A passion for commitment allows educators to engage the students intellectually and emotionally. Intellectually, educators are dedicated to bridging the division between theory and practice as it is believed that the approach fosters students' confidence and promotes insight into their individualized professional capacities (Benner, Stephen, Leonard & Day, 2010). Despite the complex challenges of nursing education, educators

are passionate about the achievement of excellence for all nursing students in clinical practice and throughout their nursing careers. Successful achievement in clinical practice requires educators to develop learning experiences that foster confidence in the student's knowledge and clinical skills. Being approachable, supportive and confident have been identified as important educator attributes that contribute to the development of nursing student's self-esteem and confidence (Brewer, & Streit, 2009). Similarly, Levett-Jones, Lathlean, McMillan, and Higgins (2007) found that welcoming, accepting, and supportive clinical educators increased students' capacity and motivation for learning. Fostering achievement is an essential attribute of a nurse educator who is working to promote a successful and rewarding clinical experience.

A passion for caring involves the creation of a teaching-learning environment that encourages discussion and debate, values and supports students' ideas, and regards them as individuals. Bankert and Kozel (2005) contended that a caring environment is characterized by valuing, genuine dialogue, relations and connectedness. If students feel that clinical nursing faculty are showing respect for them, expressing pleasure with a clinical group and acting friendly and trustful of students, their anxiety levels are lower. Clearly, this is sufficient evidence to demonstrate that caring is an essential quality of successful educators.

Experimentalism

The basic premise on which experimentalism is based is that reality is external and observable (Uys & Gwele, 2005). Experimentalists accept and encourage change. They constantly seek new ways to improve society. Truth changes and what is believed is what is currently in place. Experimentalists favour a school or program that

emphasizes subjects based on life experiences and social subjects. Students learn through problem solving, and studies based on cause-and-effect. Teachers would be facilitators that aid the learners in questioning and discovering their world. Truth is only that which can be verified through experimental testing. From the experimentalist perspective, the purpose of education is to help learners make connections between their life experiences and the world of schooling. The level of experience and the learner's interest should therefore be the starting point in any educational event. Nursing students need to develop a spirit of self-directed learning so that the educator becomes a facilitator of their learning. From the experimentalist perspective, and Dewey's in particular, education should be conceived as 'the development of the learner's capacities and interests in ways that empower her or him to assume the role of constructive participant in the life of the wider society' (Hickman, 1998 in Uys & Gwele, 2005).

The learner is viewed as a psychological and social being. The psychological and social aspects of the learner are slowly entangled, and one does not take superiority over another (Dewey, 1998 in Uys & Gwele, 2005). Through the process of development, the learner is seen as constantly seeking to find meaning in the world around him/her. He/she is directed by interest evoked by images in his/her life world. This natural tendency to 'inquire', or to be curious, allows the learner to direct his or her actions to the pursuit of those experiences, and the answers arrived at lead to a better understanding of his/her world. From the experimentalist's perspective, the teacher, by virtue of his/her experience and wisdom, has a responsibility to 'assist the learner in properly responding to these experiences' (Dewey, 1998:231 in Uys & Gwele, 2005). In essence, the teacher is viewed, not merely as a transmitter of knowledge and ideas, but

mainly as a mediator of knowledge. It is the teacher who has to help the learner negotiate meaning from his/her experiences in the light of what is already known. Similar to all progressives, the experimentalists prefer learning by doing (experimentation) rather than passively listening to educators. The basic premise is that ideas result from action. Experiential learning and constructivism are the learning theories driving the teaching/learning process in experimentalist progressive. Grounded in the belief that knowledge is socially constructed in interaction with others, active learning approaches to teaching/learning are preferred. The best that the teachers can do is help students learn how to locate information, analyse and interpret it, in order to solve life problems. It is hoped that in the process of trying to understand and/or solve the problem through hypothesis generation and seeking alternative solutions, students will acquire skills to deal with both current and future life and professional situations.

Application of Experimentalism to effective clinical teaching

Experimentalism of John Dewey is one of the most influential educational theories of the 20th Century (Hallet, 2007). In experimentalism students learn by observing the consequences of their actions, such that learning becomes a continuous activity between the learner and the environment. Students are provided with learning experiences which will permit them to project their ideas and learn from the consequences of their actions. When students are in the clinical placement they need to take large share of responsibility for their learning so that if the nurse educator and clinical staff are not available for direct teaching they can work towards achieving their clinical objectives for that placement. Students are expected to pursue answers to their questions through problem solving and critical thinking.

Nilso (2010) and Weimer (2013) agrees that experimentalism is sometimes associated with indirect teaching which reduces time spent in clinical practice activities that engage students in analysis, evaluation, problem solving, and processing information. This improves student satisfaction with the learning experience and deepen the students' understanding of how the knowledge may be valued in their lives. Furthermore, experimentalism advises that learning should be done through problem solving, and that education should be related to the interest of the student, and that students should be taught how to think and make conclusion based on evidence so they can best adapt to the needs of an ever-changing world. With shortage of faculty, increase in disease burden, shortage of nursing staff in the clinical area, and increase in student intake in nursing colleges it pauses a big challenge as to who the student will go for help. That is why student directed learning is emphasised.

Students need to take responsibility for own learning if indeed they are interested in the nursing profession. In other words, Dewey is saying that one must learn from experiences and mistakes, so they can make informed decisions down the road so that they do not repeat these mistakes. Therefore, the process of learning is lifelong, as students continue to experience things and learn from them. Students are not being taught what to think, but how to think. The nurse educator facilitates the clinical learning while students are actively involved in the performance of the learning which is done through a process of inquiry and discovery.

NMT course is an organised, systematic and dynamic process of teaching and learning activities which are geared towards producing a competent critically thinking nurse professional. So as the students interact with qualified health professionals they

need to use vicarious learning where they attach themselves to clinical staff as they provide care. Experience is the best teacher. However, students need to be reminded that they take responsibility for own learning and copy only those experiences that help to provide quality care to patients/clients. From this approach, teaching is learner centred and is based on problem solving method where students are encouraged to participate in order that they come to develop and rely on their own skills as critical thinkers rather than become passive recipients of a body of knowledge. In this way, nursing students are able to better understand important concepts and develop new ways of dealing with the world and need to develop independence of thought, clinical thinking and cooperative learning skills.

Conclusion

In this chapter, factors contributing to effective clinical teaching have been described. Clinical teaching lies at the heart of nursing education and its importance cannot be overemphasized. In a growing health care environment where human, fiscal and clinical resources are increasingly limited there appears to be a need to examine which clinical supervision model best facilitates clinical education in nursing students. This is because it is in the clinical setting where nursing students are well-informed for the reality of their professional roles. In addition, effective clinical teachers, characteristics of an effective clinical teachers and challenges faced by nurse educators have been described. Furthermore, real life clinical experience allows nursing students to improve their skills. Clinical practice enables the students to become competent practitioners. The next chapter will discuss methodology.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

Research methodology refers to the overall research design and strategy for the study from identification of the problem to data analysis (Johnson & Christesen, 2008). This chapter describes the methods and procedures that were employed to carry out the study. It describes the study design, study setting, population studied, inclusion and exclusion criteria, sample size, research instruments, pre-testing of the research instrument, data collection, data management and analysis and ethical considerations. The procedure of disseminating the results has also been included.

Research design

Research design is the structural framework or blueprint of a study. It guides the researcher in the planning and implementation of the study while optimal control is achieved over factors that could influence the study (Burns & Grove, 2009). A descriptive quantitative cross-sectional design was utilized in this study to investigate factors that contribute to effective clinical teaching of student nurse/midwife technicians. Burns and Grove, (2009) recommend the use of descriptive methods to help in discovering new meaning, describe what exists, determine the frequency with which something occurs and

categorise information. This is applicable to study factors that contribute to effective clinical teaching of student nurse/midwife technicians in Malawi. Quantitative method was employed because numerical data was needed for analysis and generalization of the results. A self-administered questionnaire was used to obtain data. Only those who returned the questionnaires were included in the study.

Research setting and study population

The study was conducted in all nursing and midwifery colleges which train nurse/midwife technicians in Malawi. Malawi has 10 (ten) colleges which train nurse/midwife technicians (Appendix F &G). The target population census in this study comprised of nurse educators from the nursing colleges that train nurse/midwife technicians (n=137). A complete enumeration of all the items in the 'population' is known as a census inquiry. It can be presumed that in such an inquiry when all the items are covered no element of chance is left and highest accuracy is obtained (Kothari, 2004) These were recruited because they were directly involved in planning, designing, teaching and assessing NMT students in the clinical area.

Inclusion and exclusion criteria

To be eligible for this study, all nursing faculty members through convenience sampling were asked to participate in the study. The total number of all tutors in all colleges that train nurse/midwife technicians was 130. These are the ones who gave their consent to participate in the study and were included in the study as the remainder was not in colleges during data collection. This represented a response rate of 95%. Nurse educators who taught student registered nurse/midwives were excluded from this study.

Data collection

A structured questionnaire to investigate factors that contribute to effective clinical teaching was developed using items and questions drawn from literature (Chuan & Barnett, 2012) and part of supervision adopted from Saariskoski (2007). Some question items were developed basing on the gaps identified as the researcher worked with students in the clinical area. After obtaining approval letters from COMREC and nursing colleges the principal investigator made arrangement with College Principals for data collection. The principal investigator went to all colleges for data collection to ensure safety of the responses so that none were lost on the way. Quantitative questionnaires containing closed ended questions were developed for data collection from the nurse educators. Self-administered questionnaires were distributed to all study participants (Appendix C). The participants were required to read the information sheet (Appendix A), verbal and written consent were obtained (Appendix B). The participants were expected to read and complete the questionnaires within 15-20 minutes.

The questionnaire had two sections. The first section comprised of demographic items and the second section aimed to identify factors that facilitate effective clinical teaching, commonly used clinical teaching strategies, characteristics of effective clinical teachers and challenges experienced by nurse educators during clinical teaching. Educators also gave suggestions on how to improve the gap.

Pretesting

Reliability for the study instrument was established via a pilot study with 4 participants. Participants were asked to complete the tool according to instructions. They were also asked to note any confusing items, to make suggestions about the tool, or to comment if they thought the tool was clear and functional. These participants were given information about the study through an information sheet (Appendix A). Those that agreed to participate signed a consent form (Appendices B) and pre-test was conducted a week before the main study to establish whether the information that was needed would, indeed, be obtained during the study (Leedy & Ormrod, 2005). Four nurse educators from Malawi College of Health Sciences –Zomba Campus were used in the pre-test who were then subsequently excluded from the main study. The college also trains nurses–midwife technicians in a three year program. No challenges were identified during the pre-test. The participants supported the assertion that the components of the questionnaire accurately reflected the essence of the concepts being studied and that the questions were appropriate to effective clinical teaching. The instrument was tested for clarity of the questions and instructions, completeness of the responses and the time taken to complete filling the questionnaire. The respondents did not have problems in filling the questionnaire and it took them 15-20 minutes to complete.

Validity

Validity refers to the ability of the instrument to measure accurately what it is supposed to measure (Burns & Grove, 2009). Since the instrument was used by permission of the designers (Saarikoski & Leino-Kilpi, 2002) and administered without

any substantial changes, this section reports on the original work on validity of instrument. The questionnaire items were clear, readable and included all elements that measured the aspects of effective clinical teaching which was being investigated (Creswell & Clark, 2007). The researcher fostered construct validity by defining and explaining the meaning of the concepts of interest in the study so that the instruments measure concepts that were supposed to be measured.

Data analysis

Statistical Package for Social Sciences (SPSS) computer software (version 19.0) was used to analyse quantitative data. Data cleaning to check for errors in data entry was performed prior to analysis. Results have been reported as percentages, frequencies and graphs.

Data management

Collected data were used solely for the purpose of this investigation. Raw data were guarded by the researcher during analysis and the processing of the report, after which Kamuzu College of Nursing, University of Malawi will safeguard research report before result dissemination. Analysed data has been saved in computer files protected by a password known only to the researcher.

Dissemination of results

The findings of the research study will be communicated through a written report after the report final copy has been approved by the researcher's supervisors. Final copies of which will be submitted to COMREC, College of Medicine Library, Health Sciences Research Committee, the University Research and Publication Committee, Kamuzu

College of Nursing library, NMCM, Malawi College of Health Sciences library–Zomba Campus, and CHAM colleges of nursing libraries. In addition to these, the report will be communicated to interested people in various forums that are accessible to the researcher. The researcher wish to have the results summarized, published in a journal and presented in scholarly conferences and seminars.

Ethical considerations

Ethics refers to a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations of the study participants (Polit & Beck, 2008). According to Burns and Grove (2009), nursing research requires not only expertise and diligence but honesty and integrity as well. Therefore, ethical research is essential to generate a sound evidence-based practice for nursing education. Approval was sought from College of Medicine Research and Ethics Committee (COMREC) (Appendix D 2). After obtaining approval letters from nursing colleges the principal investigator made arrangement with College Principals for data collection (Appendix D3-D8). The principal investigator went to all colleges for data collection to ensure safety of the responses so that none were lost on the way. Ethical issues to be addressed included free participation, confidentiality, and safety of the subjects. Participants in the study were informed about the research study, its activities, purpose and the benefits that were to be realized from the study using an information sheet (APPENDIX A). The participants signed a consent form when they agreed to participate after full explanation of what the research required (APPENDIX B). Participants were assured of anonymity. This was achieved by not using names on the questionnaire.

Conclusion

In this chapter, the research design has been explained and the research methods have been described. These included the study population, the research setting, the pretesting study and the data collection procedure. The instrument which was used in this study was also discussed including its validity and reliability. In addition, ethical issues which were considered for the study were outlined. In the next chapter, analysis of findings will be discussed.

CHAPTER FOUR

PRESENTATION OF FINDINGS

Introduction

This chapter presents findings of study which investigated factors that contribute to effective clinical teaching of students nurse/ midwife technicians in nursing /midwifery colleges. Questionnaires were administered to 137 educators and 130 responded representing 95% response rate. The findings include demographic characteristics, clinical placement and clinical teaching, characteristic of effective clinical teachers, clinical teaching strategies that contribute to effective clinical teaching, and factors that contribute or hinder effective clinical teaching. Findings are presented using frequency tables, percentages and graphs.

4.1 Demographic characteristics

The participants' demographic characteristics include age, sex, educational qualification and years of teaching experience. Most nurse educators fall on age range of 30-39 years (n=61), with n=45 being female, on years of experience mostly falling at 2-4 years and on educational qualification most falling at Bachelor's Degree as shown in Table 1.

Table 1: Demographical data for nurse educators

| Age | Male | Female | Frequency | Percentage |
|--|-------------|---------------|------------------|-------------------|
| 25-29 | 13 | 17 | 30 | 22.7 |
| 30-39 | 16 | 45 | 61 | 47 |
| 40 and above | 11 | 28 | 39 | 30.3 |
| Total | 40 | 90 | 130 | 100 |
| Years of teaching experience in nursing education | | | | |
| Years of experience | Male | Female | Frequency | Percentage |
| Less than 2 years | 15 | 20 | 35 | 27.1 |
| 2-4 years | 17 | 31 | 48 | 37.3 |
| More than 5 years | 17 | 30 | 47 | 35.6 |
| Total | 49 | 81 | 130 | 100 |
| Educational qualification | | | | |
| Educational qualification | Male | Female | Frequency | Percentage |
| Master's degree | 5 | 9 | 14 | 10.6 |
| Bachelor's degree | 39 | 57 | 96 | 74.2 |
| Diploma | 5 | 15 | 20 | 15.2 |
| Total | 49 | 81 | 130 | 100 |

Clinical teaching factors

Departments where educators mostly belong was Medical Surgical nursing 42% (n=55), on areas of interest most educators indicated medical/surgical nursing 42% (n=55), and most educators supervise more than 8 students (34%) as shown in table 2.

Table 2: Clinical teaching factors

| Department | Frequency | Percentage |
|---|------------------|-------------------|
| Medical /surgical | 55 | 42 |
| Midwifery | 36 | 28 |
| Paediatrics | 25 | 19 |
| Community Health | 10 | 8 |
| Mental Health | 4 | 3 |
| Total | 130 | 100 |
| Areas of interest in descending order | | |
| Area of interest | Frequency | Percentage |
| Medical /surgical | 49 | 38 |
| Midwifery | 30 | 23 |
| Paediatrics | 25 | 19 |
| Community Health | 22 | 17 |
| Mental Health | 16 | 12 |
| Total | 130 | 100 |
| Number of students supervised during clinical teaching | | |
| Number of students supervised | Frequency | Percentage |
| 2 | 2 | 2 |
| 4 | 9 | 7 |
| 6 | 32 | 25 |
| 8 | 42 | 32 |
| More than 8 | 45 | 34 |
| Total | 130 | 100 |

4.2 Clinical placement and clinical teaching

The study also investigated clinical teaching issues and these include clinical sites for clinical teaching; frequency of clinical visits by nurse educators, and duration of

clinical placement and integration of theory to practice. The study findings reveal the frequency of clinical visits by nurse educators for clinical teaching. The findings show that most nurse educators' visit clinical sites twice per week 28.8 % (n=37). Others, 12%, (n=16) on daily basis, 18.1% (24) 4 times per week, 25.8% (n=34), 3 times per week, and 15.2% (n=20).

Nurse educators have varied reasons for the frequency of their clinical teaching and inadequate faculty members 79.7% (n=104) was mostly indicated as shown in figure 1.

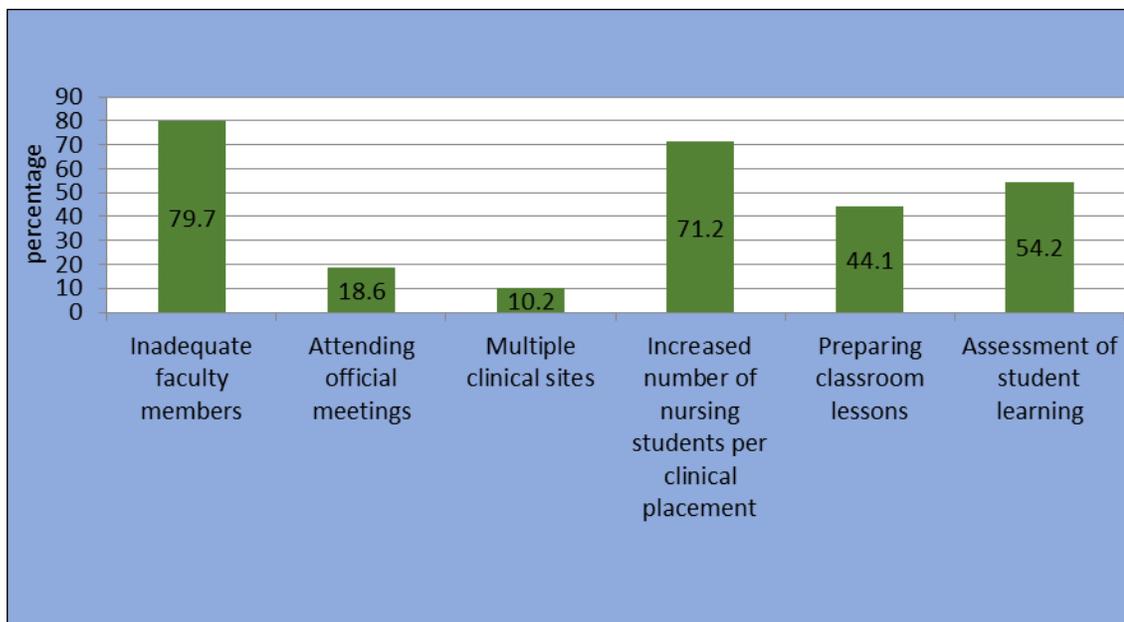


Figure 1: Reasons for the clinical teaching frequencies

Study also investigated factors in clinical sites that promote conducive teaching and learning environment and high patient acuity 75.9% (n=99) was mostly indicated as shown in Figure 2.

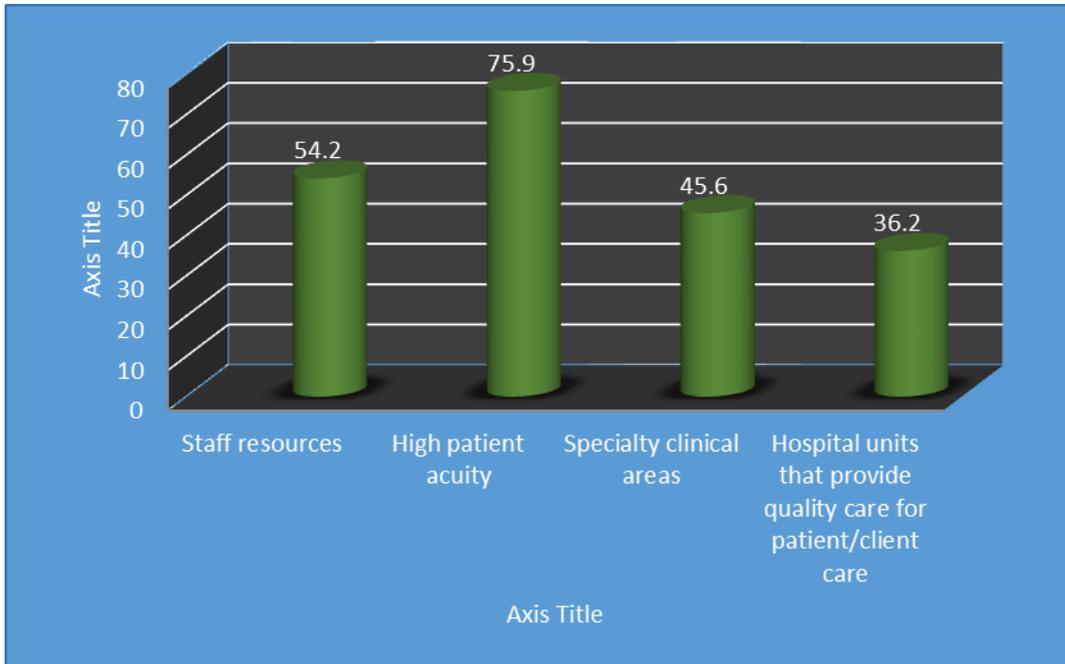


Figure 2: Ideal clinical teaching sites

The study revealed that clinical placement duration varies mostly falling at 4 weeks 34.7% (n=45) followed by 6 weeks 24.2% (n=31), less than a week 20.1% (n=26), 8 weeks 10.7% (n=15) and 2 weeks 10.3% (n=13).

Reasons for the differences in clinical placement duration were mostly competences to be attained 78% (n=101) followed by availability of clinical site 75% (n=98), number of nursing students at the site 75% (n=75) and faculty availability 65% (n=84).

Nurse educators have sole responsibility for selecting the settings in which clinical learning activities occur. The study revealed that nursing students are allocated to different clinical sites during their clinical placement and that students are mostly sent to clinical sites away from college 65% (n=85) as shown in Figure 3.

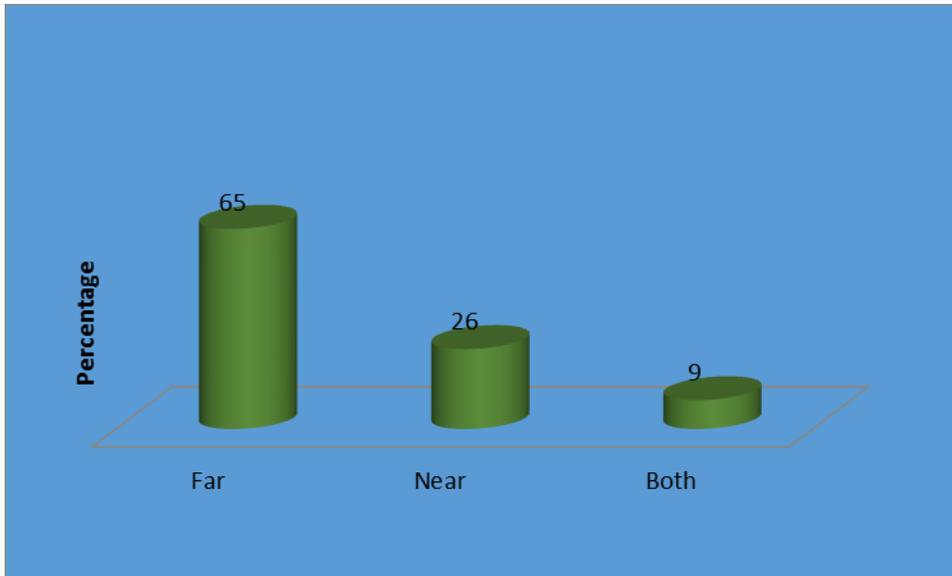


Figure 3: Distance of clinical placement from college

Reasons for different distances were Increased student population 43% (n=56), other colleges use the same sites 35% (n=46) and objectives to be attained 22% (n=28).

4.3 Characteristics of effective clinical teachers

It had been found out in this study that timely feedback rated high as a characteristic of an effective clinical teacher 94.8% (n=123) as shown in Table 3.

Table 3: Characteristics of effective clinical teachers

| Characteristic | Frequency | Percentage |
|---|------------------|-------------------|
| Provide timely feedback | 123 | 94.8 |
| Teaching skill | 112 | 86.1 |
| Being a source of support | 90 | 69.3 |
| Teacher availability | 88 | 68.0 |
| Clinical competence | 71 | 54.4 |
| Relationship of nurse educator with students and clinical staff | 123 | 95 |

4.4 Commonly used clinical teaching strategies

The study investigated clinical teaching strategies which are commonly used by nurse educators and demonstration rated high 44% (n=57), followed by discussion 32% (n=42), case study 14% (n=20), and student directed teaching 8% (n=11).

Participants indicated that use of innovative clinical teaching strategies was ideal for effective clinical teaching demonstration 100% (n=130), was rated high as well followed by Case study 94.8% (n=123), Multimedia Technology 91.2% (n=119), Discussion 87% (n=113), Clinical Conference 82.8% (n=108), Reflection 82.8% (n=108), Problem Based Learning 73% (n=95), Clinical Simulation 71% (n=92), Student Directed Teaching 76% (n=99), Role Play 68% (n=88), Grand Rounds 66% (n=86) and Questioning 83.8% (n=77).

4.5 Factors that contribute to effective clinical teaching

Among factors that contribute to effective clinical teaching clinical teaching environment was mostly indicated 80.0% as shown in Figure 4.

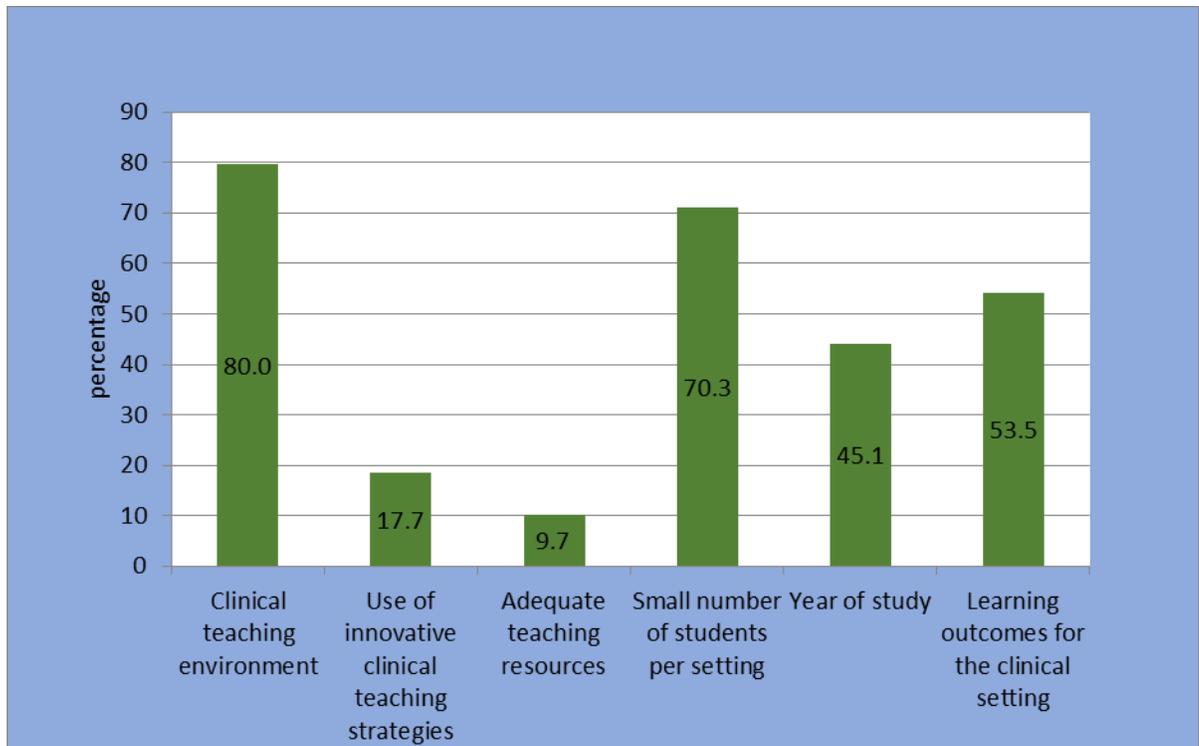


Figure 4: Factors that contribute to effective clinical teaching

Factors that hinder effective clinical teaching in general

Challenges experienced by nurse educators during clinical teaching was mostly expressed as students' different learning styles 75.9% (n=99) as indicated in Figure 5.

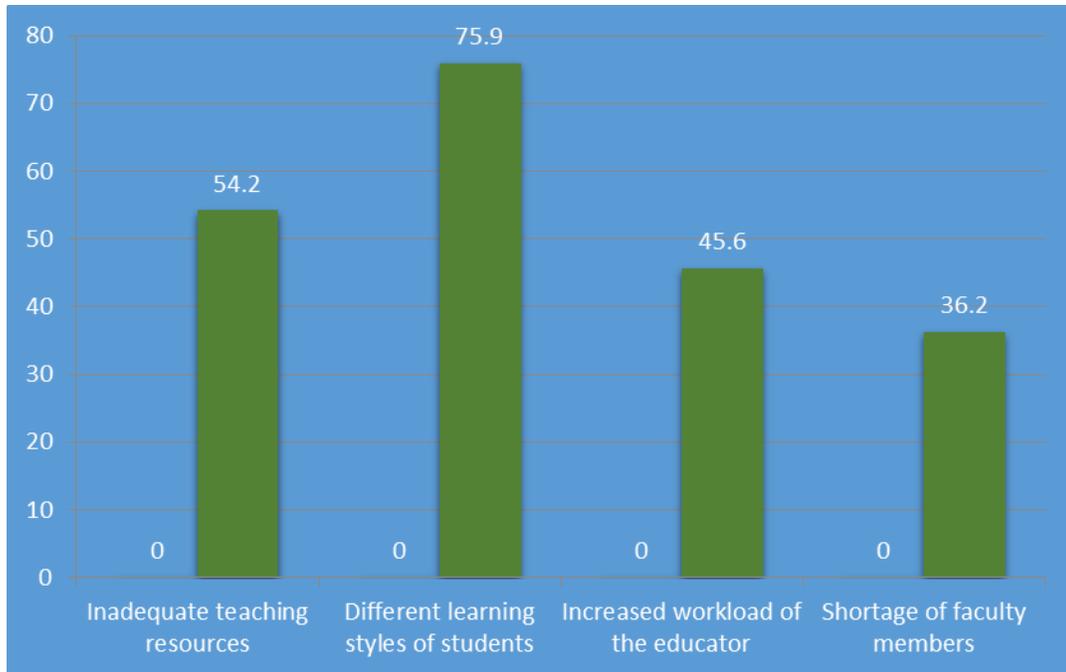


Figure 5: Factors that hinder effective clinical teaching

Among the consequences of factors that hinder effective clinical teaching making teaching difficult 28% (n=36) was mostly revealed. The other consequences were impairing effective clinical teaching and learning 13.5% (n=18), poor teaching outcomes 5.2% (n=14), and students' objectives not met 11.2% (n=14).

The study has also revealed that improvising during clinical teaching could help improve teaching 26.8% (n=35) followed by extra reading 25.8% (n=34), conducting research 21.7% (n=28) and discussion with colleagues 25.7% (n=33).

Participants indicated importance of feedback in facilitating effective clinical teaching mostly as realigning teaching 100% (n=130) as shown in Figure 6.

Summary of Study Findings

The study has revealed that the nurse educators conducted clinical teaching of student nurse/midwifery technicians with several factors that contribute to the effectiveness of their teaching. Results of this study revealed the factors that contribute to effective clinical teaching as: clinical teaching environment 79.9% (n=104), use of innovative clinical teaching methods 18.6% (n=24) adequate clinical teaching resources (10.2%, n=13), small number of nursing students 71.2% (n=93), year of study 44.1% (n=57) and learning outcomes for the clinical setting 54.2% (n=70). Integration of theory and practice during clinical training has been emphasized as a necessary component as 94.8% of participants agreed to this notion. Among the factors that were revealed as contributing to effective clinical teaching were mainly clinical teaching environment 79.9% (n=104) and use of innovative clinical teaching methods 18.6% (n=24). It had also been revealed in this study that clinical teaching did not occur without challenges which include inadequate teaching resources 54.2% (n=70) and increased workload of the educators 45.6% (n=59). Nursing students' clinical teaching was supported by different clinical staff and the study had revealed that students were mainly supervised by Registered nurses 41.5% (n=54). Students' learning was mainly assessed by NMCM assessment 89.7% (n=117).

It had also been revealed in this study that feedback was mainly necessary for realigning teaching 100% (n=130) where the educator determines how to teach clinical skills depending on how the students have performed.

CHAPTER FIVE

DISCUSSION OF FINDINGS

Introduction

This chapter discusses the research findings. These include results of demographical data which are age and sex of the nurse educator, information relating to the basic training programme that participants had undergone and clinical teaching experience. Information on integration of theory to practice, innovative clinical teaching strategies, clinical placements, assessment techniques, feedback, relationship of nurse educators with clinical staff and nursing students is included. In addition, strategies to improve clinical teaching have also been highlighted.

The demographic items in this study included age, sex, educational qualification and years of experience in nursing education. Nurse educators had the return of 95% (n=109). The high response rate might be attributed to the ease of completing the questionnaire, as the respondents were requested to punch the appropriate response rather than write long sentences. The ease of returning the completed questionnaire and the control of time for completion at a common venue also contributed to the high return rate. Bailey (2009) indicates that the ease with which the questionnaires can be returned affects the response rate.

In this study the majority of the educators had 2-4 years (37%, n=48) of teaching experience. This shows that they were inexperienced. Benner (2004) asserted that inexperienced faculty often think in terms of their own teaching when the emphasis should be on student learning. They may believe that they must be formal, reserved, and superior to students in order to maintain appropriate scope of practice and ensure that students respect them. Similarly in the study by Wetherbee, Nordrum, and Giles (2008) on physical therapy clinical educators, there was a positive correlation between the number of years of clinical teaching experience and scores on the Nursing Clinical Teacher Effectiveness. Educators beyond four years of experience may be both well-educated and experienced and in the position to give the highest quality of nursing education. In this study 35.6% (n=46) of the educators fell in this category. It could be concluded that this category had more teaching experience and hence it can be productive. Although new nurse educators may have a strong theoretical understanding of the body of nursing knowledge, experiential (practice) knowledge is essential for the new educator to progress to safer levels of practice. With experience, educators can refine their skills in clinical teaching and develop their expertise, using self-reflection and feedback from students.

According to O'Connor (2006) clinical placements should aim at meeting the students' course objectives. A small number of longer placements would be normally preferred to a large number of short placements and so the length of time should be sufficient for students to meet the course objectives, including development of the required competencies. This study found out that 4 weeks (34.7%) was the highly rated followed by 6 weeks (24.2%). In Malawi, the regulatory body NCMCM prescribes period of clinical placement for different courses. It could be shorter in Mental Health and longer in Medical/

Surgical nursing because the later has more competences than the other. Basic competences in nursing and midwifery are mainly covered in as general nursing and midwifery while Mental Health needs speciality which could be attained as an extra course to gain competences in the field. Hence, students should be allowed to spend adequate length of time in clinical placements.

Changing faculty workload demands and role expectations are contributing to the nursing faculty shortage (O'Connor, 2006). Faculty often are expected to maintain clinical expertise, instruct students in clinical sites, attend meetings, prepare for classroom teaching, and conducting assessments whether formative or summative. This study has revealed that majority of nurse educators supervise more than eight students representing 45% of the respondents. Figure 1 presents findings on reasons of nurse educators' frequencies on clinical teaching which is mostly 'inadequate faculty members' and this represents 79.7% of respondents. They also need to be physically present in the clinical areas in order to be able to teach and supervise students. Moreover, nursing faculty who supervise students in clinical sites may be responsible for an increasing number of students. In addition the ratio of students to teachers is also a key factor in the quality of clinical teaching. So, the educators' time is spread out to make sure all necessary duties are given some attention rendering clinical teaching to be ineffective. Nurse teachers need to carefully plan the clinical placements of students and make sure that they regularly visit and assist students in the wards. Papp et al. (2003) support that nurse teachers must be in charge of the clinical practice because they are the ones ultimately responsible for student learning in clinical practice. This means that although the nursing staff in the wards may assist with students' supervision, it is the responsibility of the nurse teachers to make sure

students learn what they are supposed to learn and therefore their presence in the clinical placements is very essential. The clinical sites are congested with students from different colleges who are on different programmes. This study has revealed that year of study (45.1%) is a factor that contributes to effective clinical teaching. So, beginners need more teaching time so that they grasp the skill. All clinical staff need to take part in the clinical teaching. The nurse teachers need to work regularly with the new students. The nurse teachers would set an example so that the nursing staff follow in supervising students (Kachiwala, 2007). Therefore, it can be concluded that the presence of the nurse teacher in the clinical environment can help to check whether the students are doing the correct things or find out if some of the practices have changed and therefore different from what is in the curriculum.

Clinical teaching environments are most important as they contribute to achievement of clinical learning outcomes, and accordingly occur in high quality environments for clinical learning (Newberry, 2007). A clinical teaching environment is one that successfully achieves the aims of clinical education in the practice environment (Rodger, Fitzgerald, Davila, Millar, & Allison, (2011). This study revealed that 79.7% of respondents indicated that clinical teaching environment contributes to effective clinical teaching. It is also large enough to accommodate a reasonable number of students. The difficulty of accessing appropriate clinical sites has worsened with the expansion of student numbers. Nurse educators should conduct a careful assessment of potential clinical sites before selecting those that will be used. Selection of clinical sites should be based on important criteria such as compatibility of college and clinical site philosophy, availability of opportunities to meet learning objectives, geographical location, site licensure or accreditation, availability of positive role

models, complexity of patients, level of student, purpose and type of course, and physical resources (O'Connor, 2006). The range of geographical locations possible for clinical placement is determined by the location of the college where the college has been accepted to send students, therefore it cannot be guaranteed that students will be allocated close to their college. Level of nursing students or year of study is also a factor that contribute to effective clinical teaching in that students who are new to the clinical site may have differences in the grasping of the skills taught. The clinical sites are congested with students from different colleges with different. In some areas, selection of appropriate clinical settings may be difficult because of competition among several nursing programs. Findings of the study shows that high patients acuity sites (75.9%) are mostly preferred by different nursing programs because they provide a lot of learning opportunities for students (Figure 2) followed by 54.2% depicting staff shortages which limit the number of students a site can accommodate because students need qualified staff to be their role models, and may limit the teaching they receive, reducing their learning experience.

According to the study most students are allocated to clinical sites far from the college representing 65% of the respondents. A practical issue is the difficulty of finding accommodation for students on placement (Killam & Carter, 2010). Students may feel lonely and isolated away from family, friends and college support networks. In addition to social isolation, students may feel unsupported by their faculty staff (Yonge, 2007). Page and Birden (2008) suggest attention must be paid to the structure and support for these placements, particularly for longer placements which may be more beneficial than shorter placements. Different sites can provide for different needs, and should be carefully matched

to the students, by taking students' needs and learning styles into account, and ensuring the allocation process is transparent and fair (Couper Worley, & Strasser, 2011).

A shortage of clinical space, particularly in specialty clinical areas such as mental health, obstetrics, and intensive care units, often limits nursing student activities to observation rather than hands-on patient care and may also restrict the number of students placed on those units for clinical learning experiences (Kardong-Edgren, Wilhaus, Bennett, & Hayden, 2012). In this study 45.6% (n=59) of participants indicated that specialty site was used to identify clinical sites. As expressed above some sites like mental health sites need special student allocation to meet course objectives. Speciality placements provide a valuable experience for the nursing students including opportunities to see excellence in team work, communication and assessment as well as identifying future intention to become competent nurses and midwives.

Teaching hospitals are widely perceived to provide high-quality care because ideal care should be taught to nursing students. This study has shown that hospital units that provide quality care for patients/clients are rated 36.2%. Further, Andrews, Brodie, Hillan, Gail, Wong, & Rixon (2006) found that the quality of leadership was reflected in the quality of care provided, and therefore the quality of the learning experiences students could observe or participate in. Nursing colleges have a responsibility to produce nurses who are both competent and confident for practice in the clinical setting. Provision of quality care at the clinical site helps faculty to consider the quality of care that students must learn. Despite lack of resources there it could still make a difference if quality is stressed rather than quantity. Student preparation and skill acquisition are therefore important aspects in ensuring students have successful clinical placements, especially in areas of high acuity.

Characteristics of effective clinical teachers

Characteristics of effective clinical teachers are numerous and this study identified the ones on Table 3 which are not conclusive of the clinical teacher characteristics. From the results it has shown that among the characteristics of an effective clinical teacher the relationship of the nurse educator with students and clinical staff is rated highly at 95% followed by providing timely feedback at 94.8%. Clinical competence has also been documented as an essential characteristic of effective clinical teachers. Clinical competence includes theoretical knowledge, expert clinical skills, and judgment in the practice area in which teaching occurs (Oermann & Gaberson, 2014). Clinical teachers should maintain current clinical knowledge through participation in continuing education and practice experience. Teachers cannot guide student learning in clinical practice without being competent themselves.

Placement experiences characterized by supportive relationships in positive learning environments have been shown to improve learning outcomes significantly (Fenton, 2005; Morris, 2007). Positive working relationships can increase opportunities to practice in the placement setting, whereas negative relationships can restrict the student to routine tasks. In addition a culture of support offers students the psychological safety necessary to ask and respond to questions, make and learn from mistakes, and initiate additional opportunities for learning (Healey, 2008; Plack, 2008). The placement site should be characterized by mutual respect and positive regard in order to reduce student anxiety, thereby enhancing cognitive function (James & Chapman, 2009).

The teacher's availability to work with students in the clinical setting is an important consideration in planning the learning activities. It has been revealed in this study that teacher availability (68%, n=88) is an ideal characteristic of effective clinical teachers. Being available to students to guide their learning when needed is a characteristic of an effective clinical teacher (Kelly, 2007). Time can mean how often the student is at a particular site and the amount of time you spend with your student in a given day or period of time. The amount of time you spend with a student will be based upon the level of the learner. Beginning students to a clinical practice area may require more time and guidance from the teacher than experienced students. Students need guidance in the process of clinical teaching for them to acquire the essential knowledge, technological and other skills, and values for practice.

Feedback is essential for student learning and the educator can benefit from feedback as it helps to realign their teaching depending on the type of feedback (O'Connor, 2006). In this study 94.8% (n=123) have rated feedback high which mean they all appreciate the importance of feedback. Students need feedback on their performance as it helps them diagnose their academic problems thereby improving performance. Ideally, the feedback should be given by someone with the clinical expertise to know the expected performance standards required and the educational understanding of the feedback process (Moorhead, Maguire, & Thoo, 2004). The best person to provide feedback is usually the clinical teacher, or someone who has worked regularly with the learner, has observed the learner's conduct and performance in the clinical context and who is able to accurately and fairly provide information to the learner on their progress.

Teaching strategies in clinical area

The mission of nursing education is to produce qualified nurses with the requisite knowledge and skills. Teaching strategies have to be developed within the context of a given clinical setting as well as adapted to the level of the learner. The development of these new skills and knowledge requires a variety of teaching methods and learning strategies. Courses are often constructed in ways that reveal a growing complexity of subject matter. For example, early in the first year there may be an emphasis on basic principles and ideas. Individuals have different learning styles. Therefore, nurse educators need an awareness of the learning preferences of their students in order to utilize effective clinical teaching methods.

According to Phillip and Vinten (2010) innovative clinical teaching strategies were defined as those that embrace the beliefs of socio-cultural theory, a student-centred approach whereby the role of the nurse educator is to motivate and support the student and, in mutual process, to push students to reach toward their learning potential by using guiding techniques that can be erected or gradually reduced based on the individual student's learning needs. The ultimate aim of teaching is to skilfully select and apply strategies and techniques that will enable students and teacher to find common grounds that will foster learning.

A case study is usually a description of an actual situation, commonly involving a decision, a challenge, an opportunity, a problem or an issue faced by a person or persons in an organization (Richardson & Trudeau, 2003). Case studies incorporate ideas of experimental learning by providing student-centred education and providing opportunities that will motivate students through active involvement. In this study 94.8% (n=123) of

respondents indicated that case study is an innovative clinical teaching strategy. They promote active learning. The application of case studies helps students to understand complex and complicated issues, as well as to define descriptions of interrelated processes (Kunselman & Johnson, 2004).

Problem-based learning (PBL) is a form of active learning whereby students are required to learn the material and apply it to a problem provided by the professor. Finding of the study shows that 82.8% (n=107) of respondents indicated that PBL is an effective clinical teaching strategy. In PBL, the case study involves the problems to which the knowledge of nursing theory and course content are applied (Richardson & Trudeau, 2003). Problem-based learning also allows for the connection of theory and practice in accurate situations (Jarvis, 2006). In a similar study carried in Sweden, Ehrenberg and Haggblom (2007) applied the problem-based learning approach in a project on undergraduate students to improve their learning in clinical nursing education. The study revealed that participants generally viewed PBL as positive for clinical learning, as they experienced greater freedom and increased responsibility. Also in Hong-Kong, a similar study was conducted to evaluate the effectiveness of PBL on student approaches to learning in clinical nursing education (Tiwari, Lam, Yuen, Chan, & Fung, 2005). The results of the study confirm that through PBL, students reported that they became more motivated, more self-directed in their learning, and that they had a chance to learn about real patient issues.

Demonstration is considered as an elaborate form of modelling nursing actions (O'Connor, 2006). The students are shown how to do something, and use of complex mental or psychomotor skill. In this study 100% (n=130) of nurse educators agree that

demonstration is also used as an ideal approach to clinical teaching. The instructor explains the concept or procedure and shows the students how to apply the concept or perform the procedure, and then elicits a comparable performance from the students. The learner observes and attends to the demonstration and then retains a mental model (a type of schema) of the behaviour. When the educator has demonstrated a skill it is important to give students time to do a return demonstration to ensure that the skill has been understood.

In student directed teaching, students take an active role in their own learning process and are supervised and supported in this process through close collaboration with the professional health team, academic staff, patients and their guardians. Findings of the study show that 76% (n=98) of respondents indicated that student directed teaching has benefits that give student responsibility for own learning (Gaberson, Oermann, & Shellenbarger, 2014). Learning outcomes for the students should be clearly stated and be possible to assess.

Many types of instructional media are available for clinical teaching. Media include static models or visual representations such as photographs, charts, posters, and handouts; moving visuals such as DVDs; and audio media such as CDs, real audio, and podcasts (Gaberson, Oermann, & Shellenbarger, 2014). Instructional media promotes learning through different senses, facilitating comprehension of difficult concepts and complex skills. Findings of this study show that 91.2% (119) of the respondents indicated that Multimedia is also an innovative clinical teaching strategy. Multimedia, similar to media, may be used by all students to meet clinical learning outcomes or by individual

students. The most important characteristic of multimedia is its ability to deliver effective and flexible instruction that attracts learners' interest, keeps their attention, and accommodates different learning styles.

Simulations present a real-life situation for analysis and decision making. With a simulation, students make a series of clinical decisions similar to those needed in actual practice and receive immediate feedback on them. 71% (92) Respondents in this study indicated that simulation is an innovative clinical teaching strategy that is particularly appropriate for gaining practice in identifying data to collect, analysing data in a simulated clinical situation, identifying problems and interventions, evaluating outcomes, and developing critical thinking and technological skills (Gaberson, Oermann & Shellenbarger, 2014). These provide opportunities for students to develop knowledge and competencies for clinical practice, make clinical decisions in real time, develop technological skills not possible in many clinical settings, practice in a safe environment, develop collaboration skills, and achieve many other clinical outcomes. Acknowledging that students learn through many different styles, simulation allows the incorporation of different teaching strategies to appeal to these diverse needs. Similarly, Kaakinen and Arwood (2009) examined 120 simulation manuscripts to determine whether nursing faculty members were using simulation as a teaching method or as a way to design learning opportunities. Of those articles, 94 described simulation as a teaching method or strategy.

Grand rounds involve the observation and often interview of a patient or several patients in the clinical setting (Gaberson, Oermann & Shellenbarger, 2014). In this study 66% (n=86) of the respondents opted for grand rounds for clinical teaching.

With cases and grand rounds, students can apply concepts and theories to clinical situations, identify patient and other types of problems, propose varied approaches for solving them, weigh them against the evidence, and choose the most appropriate approaches. These methods provide experience for students in analysing clinical situations and thinking through possible decisions. Nursing rounds involve the entire clinical group, which assembles at the bed site of a preselected patient. The patient need to agree and briefed beforehand his/her role in the learning experience. Either the instructor or the student caring for the patient may lead the round. The rounds are intended to stimulate problem solving or review an approach to patient care that has proven successful (O'Connor, 2006).

Role play is a teaching method involving a spontaneously portrayal of a situation, a condition or circumstance by selected members of a learning group (Gaberson, Oermann & Shellenbarger, 2014). In this study 68% (n=88) opted for role play as an innovative clinical teaching strategy. Learners are required to take on someone else's identity and to act as they think that person would behave and the learners after some initial self-consciousness about the role in question team up to project their own character and values into the role (O'Connor, 2006). On the other hand, role play tend to over-simplify complex situations as participants with dramatic talents may get carried away if not managed well and some role-players may feel inhibited or embarrassed because of the attention that is focussed on them. It is therefore important that participants should be reminded that it was drama and that comments were not personally directed over them. It can be time-consuming open to misinterpretation such that the outcome can be unpredictable.

Discussions with learners and clinical conferences provide a means of sharing information, developing critical thinking skills, and learning how to collaborate with others in a group. It has been shown in the study that discussion helps in clinical teaching as portrayed by 87% (n=113) of respondents. According to Gaberson, Oermann & Shellenbarger (2014) these discussions often involve the teacher telling the learner what to do or not to do for a patient. Discussions should be an exchange of ideas whereby the teacher, asks open-ended questions, supports learner responses, encourages students to arrive at their own decision so as to engage in self-assessment about clinical practice. In a discussion, both teacher and student actively participate in sharing ideas and considering alternative perspectives (O'Connor, 2006). Discussions give learners an opportunity to interact with one another, critique each other's ideas, and learn from others. For that reason, discussions are an effective method for promoting critical thinking. Discussions also provide a forum for students to explore feelings associated with their clinical practice. An important role of the teacher is to develop a climate in which students are comfortable discussing concepts and issues without fear that the ideas expressed will affect the teacher's evaluation of their performance and subsequent clinical grade. The teacher sets an atmosphere in which listening, respect for others' comments and ideas, and openness to new perspectives are valued. Learners need to be free to discuss their ideas with the teacher, who can guide their critical thinking through careful questioning. The size of the group for a discussion can range from 2 to 10 people. A larger group makes it difficult for each person to participate (Roberts, 2013).

Open-ended questions about students' thinking and the rationale they used for arriving at clinical judgments foster development of critical thinking skills, an important

outcome of clinical practice (Hoffman, 2008; Hsu, 2007). Participants in this study (83.8%, n=109) indicated that questioning is an innovative clinical teaching strategy. Engaging students through use of questions promotes higher level problem solving, transfer of learning to clinical practice, use of evidence for solving problems, identification of underlying assumptions, and improve student–faculty interactions. Use of a questioning strategy also helps students begin to think like nurses (Konradi, 2012). The purpose of questioning is to encourage students to consider other perspectives and possibilities, not to drill them and create added stress. However questioning needs to have a patient who is willing to be discussed. It may be difficult if the number of students is large and may be stressful for the patient to see many health personnel around his or her bed just as in grand rounds.

Clinical conferences are discussions in which students share information about their clinical experiences, engage in thinking about and reflecting on clinical practice, lead others in discussions, and give formal presentations to the group (O’Connor, 2006). This study has revealed that 82.8% (n=108) of participants use clinical conferences as a clinical teaching strategy. In this strategy students analyse patient care and clinical situations, lead others in discussions about clinical practice, present ideas in a group format, and give presentations to the group. Some clinical conferences involve other disciplines and provide opportunities to work with other health care professionals in planning and evaluating patient care. The teacher has an important role in clinical conferences in facilitating discussions that help students understand and search for meaning in their clinical experiences (Megel, Nelson, Black, Vogel, & Uphoff, 2013). Preclinical conferences assist students in identifying patient problems, setting priorities, and planning care; they prepare

students for their clinical activities. An important role of the teacher in preclinical conferences is to ensure that students have the essential knowledge and competencies to complete their clinical activities. Preclinical conferences may be conducted on a one-to-one basis with students or as a clinical group. Post clinical conferences provide a forum for analysing patient care and exploring other options, thereby facilitating critical thinking. Clinical conferences can also focus on ethical and professional issues associated with clinical practice. Conferences of this type encourage critical thinking about issues that students have encountered or may in the future. A student can present the situation to the group for analysis and discussion. The discussion should focus on varied approaches that might be used and how to decide on the best strategy. The teacher is a resource for students. By asking open-ended questions and supporting learner responses, the teacher encourages students to arrive at their own decisions and to engage in self-assessment about clinical practice. The teacher develops a climate in which students are comfortable discussing concepts and issues without fear that the ideas expressed will affect the teacher's evaluation of their performance and subsequent clinical grade. .

Nurse educators are seeking to meet the needs of nursing students with diverse learning characteristics within increasing complex academic and clinical environment (Greenawald, 2010). One teaching-learning strategy that has been used is reflection; however, there is a notable lack of consensus among educators and researchers about the specific nature of reflection. In this study 82.8% (n=108) of the participants indicate that reflection is an innovative clinical teaching strategy. Using a qualitative descriptive design within a naturalistic paradigm, undergraduate nursing students currently at the junior or senior three generic baccalaureate programs were individually interviewed to

answer questions on the nature of reflection (Greenawald, 2010). Convenience sampling from nursing programs within South-eastern Pennsylvania was utilized to deepen understanding. Results indicated that students valued reflection practice among nursing students and contributed to their nursing education. So reflection must be instilled in nursing so that they reflect on what they have before which could help them today.

Factors that hinder Effective clinical teaching

Providing the time and resources to successfully balance students' classroom learning and their development of clinical skills can be difficult to navigate. With many inpatients and shorter lengths of hospital stays, competition is fierce among nursing colleges to secure scarce clinical sites for practicums. Some participants of this study were dissatisfied with the number of students they supervised (per placement) which increased their workload (45.6%, n=59), and some of them further reported different learning styles of students (75.9%) as challenging. Increased student population reduces learning opportunities. Finding innovative ways to meet the challenges of clinical education are some of the most pressing issues when nurse educators try to transform challenges into opportunities in the future. In a previous study by Tamiko (2000) it was found that the higher the number of students the more difficulties clinical teachers faced in teaching the students. Therefore to reduce the challenges nurse educators face during clinical teaching, the number of supervisee per supervisor should be moderated.

The number of students that can be safely handled by one faculty on a nursing unit is a subject of debate between nursing faculty and college administration. The standard for evaluation by the NCMCM is subjective and involves a judgement of whether or not the goals of the nursing program can be met by the faculty-to-student clinical ratios. Factors that are

relevant in determining the number of students on a clinical nursing unit include the number of students on a clinical nursing unit include the number of clients in the clinical setting, the clients' acuity level, and the ability level of the students. The quality of the student's clinical education changes from direct hands-on practice to more observation. A concern of faculty is that the professional nurse produced by such a program will not be as competent as one who has had more clinical experience.

In clinical area students come from different colleges at different levels which would affect the quality of clinical teaching and learning. Other students in the clinical area are training to be registered nurses and some NMTs. They have different scope of practice when they qualify. Staff shortages, particularly in the clinical settings are reported to hamper the integration of theory and practice. Matching these findings, Maben et al. (2005) established amongst other factors; time, staff shortages and work overload as prime in the widening of the theory-practice gap in nursing education. Similar to these study findings, numerous researchers (Williams & Taylor, 2008) reported work pressures, competing demands, and the virtual significance placed on scholarly activities over the disadvantage of clinical teaching which is given a low priority in nursing education.

Nursing colleges negotiate clinical placements with healthcare institutions, building strong links, which are based on mutual respect for professional values about the importance of service delivery to patients, and professional commitment to the next generation of nurses. The impression has grown that, despite their supernumerary status, increased numbers of nursing students on clinical placement have created an additional strain in clinical areas, and have become a burden for clinicians with many competing

demands on their time. Maintaining capacity to support nursing students is reliant on the development and maintenance of a healthy work environment where nurses feel valued and respected for the support they give undergraduates (Yonge et al., 2002).

The clinical teaching for nursing students in clinical sites needs to be well planned so that those with adequate knowledge in nursing must share the responsibility of teaching in ideal clinical settings (Evans et al., 2013). Clinical nurses must provide theoretical knowledge, share clinical expertise, and model professional behaviour to nursing students in an increasingly complex medical system. Clinical learning environments encompass significant technological advances, shortened length of patient stay, and institutional climates which are often dominated by financial constraints, all which have the potential to impact the teaching and learning environment, and consequently, patient outcomes (Evans et al, 2013).

Conclusion

In this chapter the study results were discussed. These included factors that facilitate effective clinical teaching or hinder clinical teaching, commonly used clinical teaching strategies, and suggestions on how clinical teaching can be improved. It has been learnt from this study that factors that hinder clinical teaching affect nursing students learning which consequently leads to production of some incompetent nurse graduates.

Amongst the factors that contribute to effective clinical teaching are effective clinical teaching environment, small number of nursing students and innovative clinical teaching strategies. Nursing students are unique and have diverse learning styles. An

effective clinical teaching method depends on the skills to be taught, student's level of study, competence of the nurse educator, availability of resources, clinical teaching site, number of nursing students on the placement period and willingness of the student to learn. These student nurse/midwife technicians are future nurses and, if they are unfairly guided in the clinical area, it is always possible that they may behave in the same way to other nurses and patients. This in turn, may give nursing a negative image and impact on the number of individuals. Upon completion of the programme nursing students are expected to perform similar competencies which they have achieved as prescribed in the syllabus. There is need to develop policies to guide nurse educators in the clinical practice and further training of nurse educators on effective clinical teaching which will improve nurse graduates' performance when providing care to the public with health care needs.

Recommendations

'The student is, on the whole, master of her own destiny. S(he), selects learning from a wide variety of offerings, depends upon her peer group to a large extent and manages her own relationship with her seniors in order to ensure adequate learning' (Wyatt 1978, p. 269). This is as true in 1997 as it was in 1978' (cited in Gray & Smith, 2000).

Clinical teachers need to know which teaching behaviours are most effective. Clinical nursing education is in need of improved methods of teaching and learning where students are resourceful and can problem-solve in complex health care environments. Competent nurses need to be trained, who are essential for promotion of health and improvement of health care delivery in Malawi.

It is essential that student nurse /midwife technicians be made aware that the hours spent in the specific clinical areas are stipulated by NMCM (CHAM, 2012) and should make sure they utilise clinical placement hours for learning skills. It is also suggested that nurse educators should provide positive reinforcement of students' active involvement in the learning process, which will stimulate continued self-direction.

Educators must equip their students with the competencies they will need to provide high-quality and safe evidence-based nursing care in entry-level practice. In addition, they must ensure that nursing graduates are prepared to engage in self-directed learning not only during the transition to practice but also throughout their professional careers (Benner et al., 2010). Empowering nursing students to actively participate in their own learning and evaluation is critical to their development as competent, self-directing professionals, capable of assuming responsibilities inherent in the ever-changing and expanding health care system.

It is essential that registered nurses and midwives in training hospitals should be active members of the teaching team and that the staff establishment should provide for the optimal guidance of nursing students. It is further recommended that the task of ward nurses in clinical settings is to ensure that nursing students master the nursing skills applicable to that particular unit. Ward managers have an important role to play in the accompaniment of nursing students, by precept and example by demonstrations of skill and expertise. They should ensure that nursing students are capable of providing the required nursing care. If nursing students are unable to do so, it is the nurse managers' duty to teach nursing students in this regard. This notion is supported by Quinn & Hughes (2007), who assets that ward managers should ensure that relevant experiences are

provided for nursing students to enable learning outcomes to be achieved. The role of ward managers is to facilitate nursing students` personal and professional growth, and to provide support for the nursing students` development of autonomy. In order to achieve such autonomy, ward managers should be available for consultation and be prepared to answer questions regarding nursing care clinical settings.

It is also recommended that nursing students should not be functioning independently in clinical settings with high levels of risk. The ward managers are accountable not only for patient care, but also for teaching and guiding nursing students to provide appropriate care. It is also the role of ward managers to be aware of the need to do incidental or situational teaching by utilizing teachable moments that are present in clinical settings. This view of the role of ward managers in the accompaniment of nursing students in clinical settings is supported by O`Connor (2006) who maintains that the teaching role of professional nurses in clinical settings is important and irreplaceable and that ward managers are in a favourable position to facilitate clinical learning based on their expert experiential knowledge. The education of nursing students should be based on professional practice and its related problems found in clinical settings.

Limitations

The study was unable to capture the perceptions of clinical nurses with whom the students practice in the clinical settings on the integration of theory and practice in nursing education. Their views as to how theory and practice can be integrated are valuable in nursing education, as they can provide the practical aspect of the praxis in nursing. The study lacked an in-depth analysis of the content of the nursing courses, the type of nursing skills learned or the type of health care facilities used.

Issues for further study

The findings of this study indicate that the nursing students in colleges face considerable challenges in the clinical area and that these challenges were impacting on their ability to integrate into practice. Accordingly, the researcher recommends that further research also be conducted qualitatively to investigate the following:

Students in the clinical area come from different colleges, at different levels and different scope of practice when they qualify. How would this be considered so that students could learn what they are supposed to learn at that particular placement despite clinical objectives, bearing in mind that there is shortage of faculty and qualified nurses in the clinical area? The variation in curricula creates additional challenges in clinical education where staff nurses who frequently provide supervision for students from multiple programs, at varying levels, and differing instructional goals, may end up very unclear about what students might be safely expected to do (MacIntyre et al., 2009).

It would be beneficial to nursing education and nursing practice to examine staff nurses' perceptions of working with students as well as working with nursing faculty. There is documented research in both these areas however it needs to be re-evaluated. Nursing education is in need of more research which investigates innovative teaching practices (Diekelmann, 2002). Therefore, there is a need for research to build the evidence-base regarding innovative teaching. In addition the following need to be investigated:

- What is it that is not taught to student NMTs so that they can be assisted in clinical teaching and assessments?

- Why are more hours spent in the clinical when actually clinical competences do not improve?
- How important is CPD of faculty members and qualified nurse as nothing seem to improve on performance on clinical teaching and produce competent nurse/ midwife technicians?
- There is need to investigate effective clinical teaching factors of nursing students at Kamuzu College of Nursing.

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Appendices

Appendix A Participant information sheet

Dear participant

I am Jane Chalera, currently involved in a research study investigating factors that contribute to effective clinical teaching of student nurse/midwife technicians in Malawi. The study is conducted in partial fulfilment for the requirement of a Master's Degree in Nursing and Midwifery Education at Kamuzu College of Nursing, University of Malawi.

It is expected that data will be collected from January to February, 2014. I would like to assure you that all the answers you are going to provide me with will be kept in strict confidence. Your name and address will not be required. Your participation in the study will be completely voluntary.

Principals and Campus Director of CHAM colleges and Malawi College of Health Sciences respectively have been asked for permission to conduct the study in their colleges. After COMREC has approved, you will be provided with a questionnaire to answer the questions to the best of your knowledge which will take 15 to 20 minutes to complete. The information that you give will be used for the purposes of the study only. You may withdraw from the study at any time and this will not affect your teaching in any way. You may not directly benefit from the study in any way. However, the information that you give will help the nursing education sector to improve clinical teaching.

If you have any questions regarding your rights and welfare as a research participant, please contact the following:

The Chairperson of COMREC

Private Bag 360

Chichiri

Blantyre 3

Thank you for your assistance in participating.

Jane Chalera.

Appendix B: Informed consent form for participant

I voluntarily agree and have understood all the information about the study from the information sheet. I understand that the information that I give will not be used in any way except to generate knowledge for the effective clinical teaching of student nurse/midwife technicians. I am willing to participate in the study and I have not been coerced or forced to participate.

Signature.....Date.....

Researcher's name.....

Researcher's signature:Date.....

Thank you very much for accepting to participate in the study.

Appendix C: Questionnaire for Nurse Educators

Participant's code.....

Section A SOCIO BIOGRAPHIC DATA

Please tick in the box corresponding to your choice or write your answer in the spaces provided

1. Age in years

| Age range | Choice |
|-------------|--------|
| 25-35 years | |
| 36-45 | |
| 46-55 | |

2. Sex

| | |
|---------|-----------|
| 1) Male | 2) Female |
|---------|-----------|

3. Qualifications

| | | | |
|----------|----------|----------|--------------------|
| PhD..... | MSc..... | BSc..... | Diploma..... .. |
|----------|----------|----------|--------------------|

4. Years of experience in nurse education

| | | |
|----------------------|--------------|----------------------|
| 1) Less than 2 years | 2) 2-4 years | 3) 5 years and above |
|----------------------|--------------|----------------------|

Section B Clinical Placement Factors

| | | | | | |
|--------------------------------------|-----------|-------------|------------------|---------------|--------------|
| Department | | | | | |
| Medical /surgical | Midwifery | Paediatrics | Community Health | Mental Health | |
| Area of interest | | | | | |
| Medical/ surgical | Midwifery | Paediatrics | Community Health | Mental Health | |
| Number of students supervised | | | | | |
| 2 | 4 | 6 | 8 | 10 | More than 10 |

5. How far are students allocated for clinical practice?

(i) Hospital close to the College

(ii) Hospital away from the College

(iii) If both, tick in the both boxes

6. On average how long does each clinical placement take?

| Duration of clinical placement | Choice |
|--------------------------------|--------|
| 2 Weeks | |
| 4 Weeks | |
| 6 Weeks | |
| 8 Weeks | |
| More than 8 weeks | |

7. How many wards do you supervise?

1

2

More than 2

8. How does supervising more than two wards affect your clinical teaching?

| Effect of supervising more than two wards | Choice |
|---|--------|
| Increased workload | |
| Inadequate clinical teaching | |
| Role conflict | |
| Difficult finding learning experiences for students | |

9. What factors in clinical sites are identified as ideal to meet nursing students' objectives?

| Factor | Choice |
|--|--------|
| Staff resources | |
| High patient acuity | |
| Specialty clinical areas | |
| Hospital units that provide quality care for patient/client care | |

10. What do you as an individual categorise as effective clinical teacher's characteristics?

| Characteristic | Choice |
|---|--------|
| Clinical competence | |
| Teacher availability | |
| Teaching skill | |
| Being a source of support | |
| Interpersonal relationship with students and clinical staff | |
| Provide timely feedback | |

11. How often do you conduct clinical supervision?

| | | | | | |
|----------|-------------------|-------------------|-----------------|----------------|------------------|
| 1) Daily | 2) 4 times a week | 3) 3 times a week | 4) Twice a week | 5) Once a week | 6) Other specify |
|----------|-------------------|-------------------|-----------------|----------------|------------------|

12. Indicate reasons for the clinical teaching frequencies above

| Reason | Choice |
|---|---------------|
| Inadequate faculty members | |
| Attending official meetings | |
| Multiple clinical sites | |
| Increased number of nursing students per clinical placement | |
| Preparing classroom lessons | |
| Assessment of student learning | |

13. What clinical teaching strategies do you commonly use?

| Commonly used clinical teaching strategies | Choice |
|--|--------|
| Demonstration | |
| Discussion | |
| Case study | |
| Student directed teaching | |
| | |

14. What innovative clinical teaching methods do you mostly use?

| Clinical teaching strategy | Choice |
|----------------------------|--------|
| Case Study | |
| Demonstration | |
| Discussion | |
| Questioning | |
| Problem Based Learning | |
| Clinical Conference | |
| Grand Rounds | |
| Multimedia Technology | |
| Student Directed Teaching | |
| Clinical Simulation | |

15. What challenges do you encounter when using the teaching strategy chosen above?

| Challenges using the teaching strategy | Choice |
|--|--------|
| Inadequate resources ideal for the strategy | |
| Increased number of nursing students | |
| Some clinical sites are away from college | |
| Inadequate time to achieve learning outcomes | |
| Lack of continuity for supervision | |

16. What factors facilitate your clinical teaching?

| Factors that facilitate effective clinical teaching | Choice |
|---|--------|
| Clinical teaching environment | |
| Use of innovative clinical teaching strategies | |
| Adequate teaching resources | |
| Number of students per clinical setting | |
| Academic level of students | |
| Learning outcomes for the clinical setting | |

17. What factors hinder your effective clinical teaching?

| Factors that hinder effective clinical teaching | Choice |
|---|--------|
| Inadequate teaching resources | |
| Different learning styles of students | |
| Increased workload of the educator | |
| Shortage of faculty members | |

20. How do the challenges affect your clinical teaching?

| Effect of challenges | Choice |
|---|--------|
| Making teaching difficult | |
| Impairing effective teaching and learning | |

| | |
|--|--|
| Poor teaching outcomes | |
| Students' objectives not being met | |
| Students not being taught the ideal techniques | |

If there is anything you would like to add about your role as a nurse educator in clinical education which has been left out in the questionnaire please write them down in the space below

.....
.....
.....

Thank you for your time and participation in the study.

**Appendix D 1: Permission from College of Medicine Research and Ethics Committee
(COMREC)**

LETTER SEEKING PERMISSION FROM COLLEGE OF MEDICINE RESEARCH AND
ETHICS COMMITTEE (COMREC)

Jane Chalera
Kamuzu College of Nursing
Private Bag 1
Lilongwe
19th September, 2013.

The Director
College of Medicine Research and Ethics Committee (COMREC)
Private Bag 360
Chichiri
Blantyre 3

Dear Sir,

**REQUEST TO CONDUCT A STUDY ON 'INVESTIGATING FACTORS THAT
CONTRIBUTE TO EFFECTIVE CLINICAL TEACHING OF STUDENTS IN NURSING
COLLEGES IN MALAWI'.**

I am a second year student pursuing a Masters Degree in Nursing and Midwifery Education at Kamuzu College of Nursing. I am required to conduct a research study in the area of my specialization (nursing education) in partial fulfillment of the Masters Degree in Nursing and Midwifery Education.

I would like to request your committee to allow me to conduct the research in all colleges that train nurse/midwife technicians. The topic of the study is 'INVESTIGATING FACTORS THAT CONTRIBUTE TO EFFECTIVE CLINICAL TEACHING OF STUDENTS IN NURSING COLLEGES IN MALAWI'.

I am looking forward to your favorable response.

Yours faithfully



JANE CHALERA

Appendix D 2 COMREC CERTIFICATE



Appendix D 3: Permission from Nkhoma College of Nursing and Midwifery

Sat, Sep 21, 2013 at 9:29 PM
Sat, 9:29 PM

[Message starred](#)

Re: REQUEST TO CONDUCT A RESEARCH STUDY AT YOUR COLLEGE

[Hide Details](#)

From

- [Nkhoma Nursing College](#)
-

To

- [Jane Chalera](#)

Thanks for your letter. you can come next week to collect the letter however approval certificate from COMREC will be required before you start data collection.

On Sat, Sep 21, 2013 at 6:43 AM, Jane Chalera <chalerajane@yahoo.com> wrote:

Sir/Madam,

See attachment.

Sorry that i have sent this on a Saturday because i experienced net work problems.

Good day.

Jane Chalera.

Appendix D 4: Permission from Trinity College of nursing and Midwifery.



From : Trinity College of Nursing and Midwifery,
PO Box 51937,
LIMBE.
Tel: 01459208/ 0888577806/ 0888613029/ 0992212292

To : Mrs. Jane Chalera,
Kamuzu College of Nursing,
Private Bag 1,
LILONGWE.

Dear Mrs. Chalera,

Permission to conduct Research on 'Factors that contribute to effective clinical teaching of student Nursing/ Midwifery Technicians in Nursing Colleges in Malawi.

Having acknowledged the receipt of your letter requesting for permission to conduct research on the above topic, I am pleased to inform you that College management has granted the permission for you to conduct the research at the College.

We wish you well as you pursue your studies.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'David M. Siyamanda', is written on a light blue background.

David M. Siyamanda.

For: Mrs M. Bwanali.

The College Principal

Appendix D 5: Permission from St. Luke's College of Nursing and Midwifery

Fri, Sep 20, 2013 at 9:18 AM

9:18 AM

[Message starred](#)

Re: SEEKING PERMISSION TO CONDUCT STUDY AT YOUR COLLEGE

FROM stlukescollegeofnursing TO You

[Show Details](#)

From

- [stlukescollegeofnursing](#)
-

To

- [Jane Chalera](#)

Jane,

Thank you for choosing St Lukes to conduct your academic study. You are welcome. Please remind us just before you come.

On Thu, 19 Sep 2013 23:41:12 -0700 (PDT), Jane Chalera wrote

> Sir,

> See attachments.

>

> Good day.

> Jane Chalera.

Maxwell Pangani

The Principal St Lukes College of Nursing and Midwifery

P.O.Box 21 Chilema

Appendix D 6: Permission from St. Joseph College of Nursing & Midwifery



St. JOSEPH'S COLLEGE OF NURSING & MIDWIFERY

P.O. Box 5505
LIMBE, MALAWI, CENTRAL AFRICA

Tel: (265) 01 916 033/01 916 026
Cell: (265) 08 830 228

Email: stjosephn@yahoo.com

Date: 9th September, 2013

To: Mrs. J. Chalera
Kamuzu College of Nursing,
Lilongwe Campus,
Private Bag 1,
Lilongwe.

Cc: The Dean of Faculty,
St Joseph's College of Nursing,
P. O. Box 5505,
Limbe.

Dear Madam,

RE: REQUEST TO CONDUCT A STUDY ON "FACTORS THAT CONTRIBUTE TO EFFECTIVE CLINICAL TEACHING OF STUDENT NURSE/MIDWIFE TECHNICIANS IN NURSING COLLEGES IN MALAWI"

Reference is made to your letter dated 30th August 2013, on the above subject. I am pleased to inform you that College Management has accepted your request. By copy of this letter, the Dean of Faculty is authorised to assist you with the information you may need to facilitate your study.

If any changes, please notify the college as soon as possible. We wish you well in your studies and we hope as College we will have an access to the results which will assist us to improve the clinical teaching of our students.

Yours faithfully

Roselyn Kalawa (College Principal)

All communications should be addressed to the Principal

Appendix D 7: Permission from Mulanje Mission College of Nursing and Midwifery

Tue, Sep 24, 2013 at 3:52 PM

Tue, 3:52 PM

[Message starred](#)

Re: PERMISSION TO CONDUCT A STUDY AT YOUR COLLEGE

[Hide Details](#)

From

- susan.sundu@yahoo.com
-

To

- [Jane Chalera](#)

Ms Chalera,

I write in response to your request to conduct a study at Mulanje Mission College of Nursing and Midwifery.

The college has accepted your request. We know that after the study the results will also our college in some areas.

You will let us know when you are ready to start.

If COMREC wants to verify the authenticity of this letter they can contact me on 0888857847 or email: susan.sundu@yahoo.com

Yours faithfully,

Susan Sundu(Mrs.)

College Principal

Sent from my BlackBerry® smartphone powered by Airtel Malawi.

From: Jane Chalera <chalerajane@yahoo.com>

Date: Thu, 19 Sep 2013 23:18:02 -0700 (PDT)

To: susan.sundu@yahoo.com<susan.sundu@yahoo.com>

ReplyTo: Jane Chalera <chalerajane@yahoo.com>

Subject: PERMISSION TO CONDUCT A STUDY AT YOUR COLLEGE

Madam,

See attachments.

Good day.

Jane Chalera.

Appendix D 8: Permission from Ekwendeni College of Health Sciences

CHURCH OF CENTRAL AFRICA PRESBYTERIAN



SYNOD OF LIVINGSTONIA

Ekwendeni College of Health Sciences
P.O Box 49, Ekwendeni, Malawi
Tel/Fax: +265(0) 1339 339
Email: ekwehealthcol@gmail.com



All official Correspondence to be addressed to The College Principal

Ref:

26th September 2013

Jane Chalera
Kamuzu College of Nursing
Lilongwe Campus
Private Bag 1
Lilongwe

Dear Jane Chalera,

RE: CLEARANCE REQUEST TO CONDUCT A STUDY AT
EKWENDENI COLLEGE OF HEALTH SCIENCES

Reference to your letter dated 19th September 2013 in which you applied for permission to conduct a study at Ekwendeni College of Health Sciences on "*Factors that contribute to effective clinical teaching of student nurse/midwife technicians in nursing colleges in Malawi*"

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,

E. A. Kasonda
ACTING PRINCIPAL

Appendix E: Institutions under which the research project has been conducted

Kamuzu College of Nursing- University of Malawi

College of Medicine - University of Malawi

8.12 Appendix F: Participants

| College | Number of nurse /midwifery tutors | Owner |
|-----------------|-----------------------------------|--------|
| St. John's | 12 | CHAM |
| Ekwendeni | 15 | CHAM |
| St. Joseph's | 21 | CHAM |
| St. Luke's | 14 | CHAM |
| Mulanje Mission | 20 | CHAM |
| Trinity | 7 | CHAM |
| Holy Family | 15 | CHAM |
| Malamulo | 13 | CHAM |
| MCHS-Zomba | 9 | Public |
| Nkhoma | 9 | CHAM |
| Total | 137 | |

Appendix G: Map of Malawi showing regions, tertiary hospitals and nursing colleges

