EVALUATION OF THE CLINICAL LEARNING EXPERIENCES AMONG UNDERGRADUATE NURSING STUDENTS AT THE UNIVERSITY OF NAIROBI SCHOOL OF NURSING

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NOVEMBER 2015

DECLARATION

I declare that this dissertation is my original work and has not been presented to any other institution for similar or any other award.

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DEDICATION

This research is dedicated to all the Bachelor of Science in Nursing students especially those who participated in this study. It is also dedicated to all the patients; assuring them of our commitment to improve ourselves to give them the quality care that they all yearn for.

ACKNOWLEDGEMENT

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ABBREVIATIONS

BScN...Bachelor of Science Degree in Nursing

CME...Continuous Medical Education

FGD...Focus group discussion

KNH...Kenyatta National Hospital

SONS...School of Nursing Science

SPSS...Statistical package for Social Sciences

UON...University of Nairobi

OPERATIONAL DEFINITIONS

Clinical learning: Practical Integration and application of knowledge, skills and attitudes learned in the university.

Congruence with class teaching: Practical learning conforming with class teaching

Experiential learning: Learning through reflection on doing

Feedback: Return on information about the results of an activity

Perception: Opinion formed and entertained by individuals, prepossession, a prejudice, anticipation. Ability to see, hear or become aware of something through the senses.

Student nurse: A person training to be a nurse at a nursing school or hospital, a nurse in training, undergoing a trial period.

Supervision: Process of directing the student

Task involvement: Having an interest in a task and participating in it

Theoretical Knowledge: Knowledge taught in class in the area of anatomy and physiology, patho-physiology, medicine, surgery.

ABSTRACT

Background: In today's challenging world, the nurses' active participation in planning the care of patients is vital. Nursing education today must prepare nurses for the future, as health care is dynamic, non-static, and constantly in a state of change. There is a great need for both strong theoretical background and an equal amount of hands-on clinical experience as it is necessary to expand the view of a nurse's role. This is only possible when the nurses are knowledgeable and well informed. Studies worldwide have found gaps in translating the classroom theory into practice in the clinical nursing environment. This study sought to find the perceptions of the Nairobi University's undergraduate nursing student's perspective as relates to the clinical learning environment, task involvement, participation and opportunities, feedback, clinical supervision and support.

Study design: A cross-sectional study utilizing quantitative and qualitative methods was designed to explore the undergraduate nursing students' perception of learning during the times they are undertaking clinical practice placement.

Study population: The study population composed of second, third and fourth year undergraduate nursing students of the University Of Nairobi School Of Nursing

Study Area: The study was conducted at the University of Nairobi's School of Nursing sciences at the Kenyatta National Hospital clinical areas where the undergraduate nursing students were undertaking their clinical practice placements.

Materials and Methods: Data was collected for a period of three months using a semi-structured questionnaire. Consent was sought from consenting participants. A sample of 131 participants was selected from the study population. Ethical approval was obtained from the KNH/UON ethics and research committee. Descriptive and inferential analysis was done using the SPSS version 20 computer package. The study findings will hopefully be used to inform the nursing school's curriculum to enhance the students' clinical learning experience.

Results: The study showed that clinical practise experience is positively correlated with theoretic preparation (r=0.646), clinical learning environment (r=0.583) (p=0.000), clinical supervision (r=0.642) (p=0.000), clinical feedback (r=0.639) (p=0.000) and opportunities for clinical learning (r=0.639) (p=0.000). The study further shows that 74% (n=97) had adequate clinical learning experience while 26% (n=34) had inadequate clinical learning experience. This means that students had inadequate supervision/feedback and the clinical learning environment was not conducive.

Conclusion: Conducive clinical learning environment, clinical supervision/feedback and opportunities for clinical learning enhance adequate clinical experience. Adequate clinical experience results to a competent student nurse. Lack of supervision/feedback and an environment that is not conducive for learning, results to demotivation of student nurses leading to incompetency. This in turn can lead to nurses who are not professional leading to poor delivery of services to patients which may lead to high morbidity and mortality rate. The study recommends that preceptors are trained and supported in clinical areas, partnering of nurse educators with clinical area, mandatory use of skills laboratory prior clinical placement and frequent supervision and feedback of nursing students.

CHAPTER ONE: INTRODUCTION

Nursing is a professional career that requires nurses to have extraordinary range of skills and knowledge. Nurses are expected to deliver the highest possible quality of care in a compassionate manner. Therefore they must access and evaluate extensive clinical information and incorporate it into their clinical decision making. Nursing is a clinical practice discipline. Professional nurses use knowledge and skills without interference from physicians or other disciplines. Clinical nurses use the body of nursing theory knowledge gained in nursing school and maintained through continuing education (Kaphagawani et al. 2013).

Health care systems worldwide are faced with the challenge of improving the quality of care, closing the knowledge-to-practice gap, and identifying the facilitators in these processes. Knowledge translation that promotes the closeness between knowledge and practice is often overlooked. (Frankel.2009). Learning takes place when students apply what they have learned in classroom situation into the reality of clinical nursing. The academic setting is viewed as a teaching setting where students learn theoretical and professional systems of knowledge for life-long learning in their occupation. The hospital setting is viewed as a practice or vocational setting in which theoretical learning is applied, with minimal need for supervision and further training (Henderson et al.2006).

In today's challenging world, the nurses' active participation in planning the care of patients is vital. Nursing education today must prepare nurses for the future, as health care is dynamic, non-static, and constantly in a state of change. There is a great need for both strong theoretical background and an equal amount of hands-on clinical experience as it is necessary to expand the view of a nurse's role. This is only possible when the nurses are knowledgeable and well informed (Hornyak et al. 2007). This study sought to find the clinical learning experiences from the nursing student's perspective.

1.1 Background Information

According to a report released in the United States of America (A new health system for the 21st century) in 2002, there is a widening gap between how good health care is defined and how health care is actually provided. Nursing research has provided sound base of knowledge from which to practice, yet many questions endure and much remains to be done to

incorporate research based knowledge into nursing practice. Right from the earlier years Boud, Cohen and Walker (1993) propositioned that learning builds on and flows from experience and that learning can only occur if the experience of the learner is engaged. Students learning can be enhanced by integration of teaching and practice by the instructors. The content knowledge should not be remote from the practical issues the teachers face. The teacher's practical knowledge could serve as a valuable resource for enhancing educational theory.

Clinical studies in nursing education ought to create conditions for the students to link theory to practice. Previous research in this field focuses on the gap between theory and practice, learning environments, supervision and reflection connected to caring and learning. The aim of this study is to describe how theory and practice are intertwined from a student perspective.According to a study done by Mohamud et al.(2014) about Malaysian nurses skin care practices-experiences versus knowledge,80.5% disagreed that they had a strong knowledge of preterm infants' skin. None of the respondents, despite having work experience in neonatal intensive care unit of more than five years believed they had a good knowledge of preterm infant skin care.

According to a study done on nursing students' experiences, of clinical practice by Sharif and Masoumi (2005) in Iran, showed that nursing students were not satisfied with the clinical component of their education. They experienced anxiety as a result of feeling incompetent and lack of professional nursing skills and knowledge to take care of various patients in the clinical settings.Therefore it is hoped that an investigation of students view will help develop effective clinical teaching strategy in nursing education. Another study done by Carina A. (2013) on registered nurses views on nursing competence at residential facilities, registered nurses require varied and broad advanced nursing knowledge, technical and medical knowledge in order to understand nursing care despite the way of working.

Regionally a study done by Nxumalo (2011) on factors that affect theory practice integration of student nurses at a selected campus in South Africa found that student nurses and nurse educators in Limpopo province experienced problems in integrating theory into practice. Another study by Muganyiz et al., (2014) in an analysis of pre service family planning teaching in clinical and nursing education in Tanzania, only one met the criteria for suitability of family planning teaching. Pre service family planning teaching in Tanzania is theoretical, poorly guided, majority of the schools are unable to produce competent family planning

service providers. Pre service family planning service providers should be strengthened with more focus on practical skills. In Kenya, a study done by Wachira S.(2014) on the theoretical and clinical practice competencies of new Bachelor of Science in nursing graduates post internship in Kenya, 69% of the graduates have inadequate clinical judgment ability. Majority of the students seem to go through training without being able to apply their theory to practice.

Encountering the patient means that the students can gain a sense of the whole and the theory falls into place. Nursing education needs to create fertile conditions for students to learn in clinical settings. Learning and caring take place simultaneously in caring contexts and according to Ekebergh (2011) learning in the clinical practice is an important component of nursing education considering that nursing is a practice-based profession. The importance of clinical practice cannot be overemphasized as it prepares nurses to become competent practitioners and reduces the theory practice gap.

The aim of this study was to evaluate nursing students learning experiences in the clinical practice. Studies across the globe show that there is a theory practice gap that is influenced by various factors. The quality of nurse education depends largely on the quality of the clinical experience that student nurses receive in the clinical environment (Henderson et al. 2006). The clinical practice takes place in a dynamic environment where patient care is provided as well as students learning (Ip and Chan 2005). Students' experiences in a clinical learning environment may have profound impact on their learning whether positively or negatively. Experiences, including application of theory to practice, effective mentoring and constructive feedback positively influence learning (Ralph et al. 2009). Nonetheless, poor relationships with clinical staff, lack of support from educators and lack of challenging learning opportunities are some of the negative experiences that may affect students' learning (Ip and Chan 2005). These experiences may differ from one clinical learning environment to another as organization of clinical education differs from place to place or country to country. There was thus the need for this study to be conducted and find out the experiences of students in the Kenyan learning environment.

1.2 Problem statement

Core competencies for all health care professionals are focused on improving safety outcomes in health care for the patients. Creating a professional practice model of nursing results in safe, quality nursing in the health care system. Lack of knowledge by nurses means

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poor health service delivery to the patients which may lead to high morbidity and mortality rate.

The availability of information and the growth of science have led to significant improvements in health outcomes throughout the world. However differences in outcomes, health inequalities and poorly performing health services continue to present a real challenge to all nurses. Stronger emphasis needs to be placed not just on the discovery of new products, drugs and diagnostics but on how knowledge is put into use, that is, on how we close the gap between evidence and action.

Studies are showing that there is a gap between theory and practice of nursing which can lead to lower quality of care (Sharif and Masoumi 2005, Elcigil and Sari 2008, Grealish and Ranse 2009, Papastavrou et al 2010, and Essani et al 2011). Fundamental changes to the healthcare systems are needed in order to improve health care and provide quality care. This includes professional training of the nurse that shapes their behaviour, interests and nursing opportunities found in health care. Nursing students experiences in clinical practice are vital in ensuring good overall learning takes place to prepare them for their professional roles. Studies show different experiences among students across the world (Ip and Chan 2005, Henderson et al 2012, Kapaghawani and Useh2013). Changes in the landscape of healthcare such as new technology, increased diversity in the workplace, greater accountability for practice requires the nurse to be well equipped with knowledge and skills to be able to deliver quality health care.

1.3 Study justification

The existing gap between theory and practice can well affect the competency of the students. It involves the patients' safety. If this issue is not properly examined and overcome, it will become an obstacle towards reducing quality nursing curriculum (Mohamud A. 2013). There are still students and nurses who look upon the clinical part of nursing education merely as practical training in nursing procedures and routine without any connection with theoretical nursing. Theoretical knowledge is seen as "knowing that" which is learnt by intellectual and cognitive activities. Practical knowledge is seen as "knowing how", which is gained by experience from practical training and doing things (Benner 1984).

Theoretical and practical parts of nursing education are still often separated instead of being intertwined as a whole. There is therefore a theory-practice gap. This may have a negative

impact on patient outcomes as well as future incompetent nursing practitioners. Clinical education in nursing is a matter of preparing the student for the transition into the nursing profession and for work in the future health care system. Positive student's experiences enrich their affirmation of having chosen nursing as a lifelong career. Despite a wealth of research on clinical education, learning in clinical practise is still a problem (Kapaghawani and Useh2013).

This study sought to evaluate the clinical learning experiences as seen by student nurses in the University of Nairobi School of nursing. There may be concerns by qualified nurses where these students are placed for practical lessons at KNH, that they are unable to integrate theory into practise. There are no such studies done in this country to evaluate the student's perception of how they translate the classroom theoretical into clinical practice learning.

1.4 Research questions

1. Are nursing students satisfied and self-confident with their learning after theoretical lessons in preparation for clinical nursing practice?
2. What are the undergraduate nursing students' perceptions of their clinical learning environment?
3. What are the undergraduate nursing students' perceptions of feedback given to them during clinical practice placement?
4. What are the nursing students' views regarding opportunities during clinical practice placement?

1.5 Study objective

1.5.1 Broad objective

The objective of this study was to evaluate the clinical learning experiences among undergraduate nursing students at the University Of Nairobi School Of Nursing.

1.5.2   Specific objectives

1. To determine theoretical knowledge preparation for clinical placements as viewed by the undergraduate student nurses.
2. To assess the clinical learning environment as viewed by the undergraduate student nurses.

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3. To evaluate the undergraduate nursing student's view of clinical supervision and feedback given during clinical practice placements

4. To determine the undergraduate nursing students' view regarding opportunities for clinical learning.

1.6 Conceptual framework

A number of factors are associated with the students learning in nursing clinical education

Independent variables

- Theoretical knowledge preparation - Teaching
- Clinical learning environment
- Clinical supervision and feedback
- Opportunities for clinical learning

Dependent variables
- Clinical learning experiences

Expected outcome
Competent nurse

Confounding variable
Level of studies
No of clinical placements

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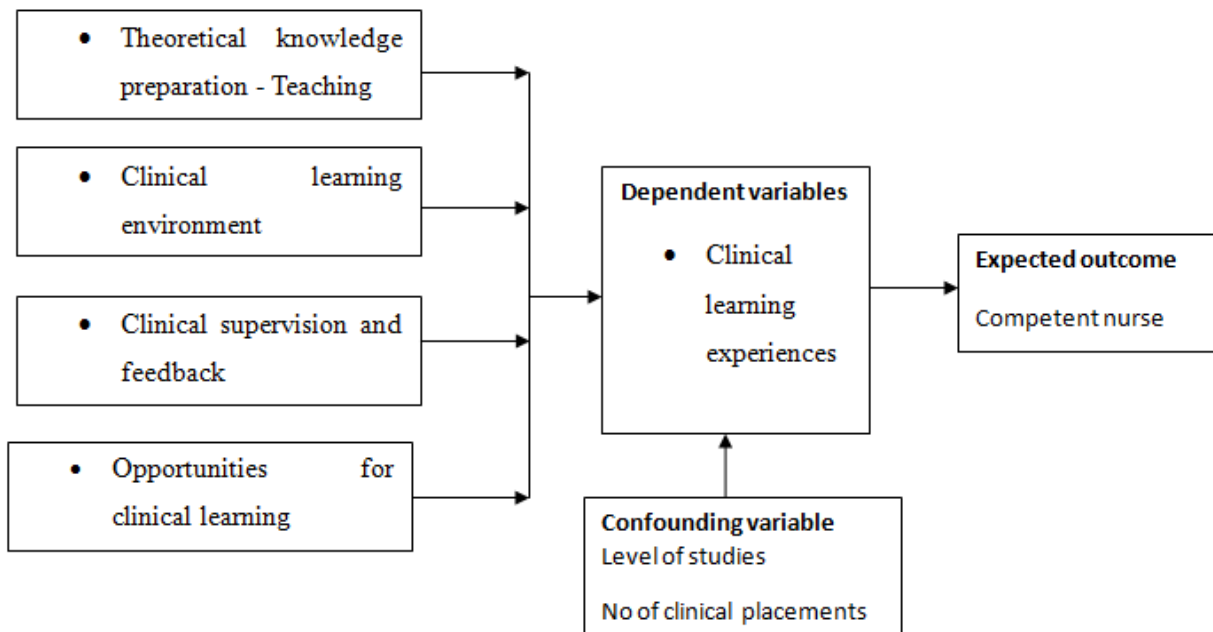
1.7 Operational framework

Objectives	Independent variable	Dependent variable	Measurement Scale	Tools for data analysis	Methods of data analysis
To determine theoretical knowledge preparation for clinical placement	Theoretical knowledge preparation	Clinical learning experience	Ordinal data	Questionnaire-Likert scale FGD	Chi square Correlation frequency and proportions
To assess the clinical learning environment	Clinical learning environment	Clinical learning experiences	Ordinal data	Questionnaire FGD	Chi square, Correlation, frequency and proportions
To evaluate students view of clinical supervision and feedback	Clinical Supervision/Feedback	Clinical learning experience	Ordinal data	Questionnaire FGD	Chi square, Correlation, frequency and proportions
To determine students view regarding opportunities for clinical learning	Opportunities	Clinical learning experience	Ordinal data	Questionnaire FGD	Chi square, Correlation, frequency and proportions

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

If nursing is a professional practice, an environment supporting professional practice must be created. There is an increased demand for nursing as a professional practice. Professional nursing practice makes a difference in care delivery by empowering nurses. According to a study done in Southern Finland describing the experiences of work empowerment among nurses engaged in elderly care, nurses were less confident about outcome empowerment than in verbal and behavioural empowerment. Empowerment is a skill needed by practitioners.

Kaphagawani and Useh (2013), from the review of several studies, say there are accounts of students in internship who are unable to make the transition from theory to practice, Perhaps the difficulty in making the transition from theory to practice arises in part from a failure of the teacher to integrate both theory and practice into the same course in the curriculum in ways that are relevant and meaningful to the students. Such integration would help students to associate the practical value of learning theoretical concept.

The student needs to have the capacity to perform and put what they know from the classroom into practice. Students require training in self awareness, knowledge acquisition and skill building in order to become competent. In order for students to develop their skills, theoretical education and practical experience is necessary. Fiszer (2004) states that the resulting data of what we can do in the classroom to increase students success in work settings points to the need for an ongoing professional development model that directly connects training and practice.

Learning in the clinical practice areas is an important component of nursing education considering that nursing is a practice-based profession. Nurse educators are charged with multiple responsibilities in the classroom and practice settings. They observe students engaging in learning experiences in the classroom and they also share knowledge gained from experiences within their profession. They desire the students to not only learn theory but also to learn how to apply the theoretical frameworks in clinical nursing practice.

Nurses are managing their clinical responsibilities at a time when the nursing profession and the larger health care system require an extraordinary range of skills and talents. In today's

world nurses must become lifelong learners capable of modifying their clinical practice based on emerging new knowledge. For nurse educators both classroom learning and experience are important in preparing students for practice in the real clinical field of nursing patients. Active learning is necessary in enhancing the integration of practice and theory in the classroom. Active learning includes students' involvement in doing things, that is, students are involved in more than just listening.

2.2 Theoretical knowledge preparations

Theory forms a basis for learning which students have to apply in the clinical experience in order to make meaning from the theory. Conflicting practices between the nursing taught in the classroom and that of clinical setting results in students being left in conclusion, stressed and anxious which may indicate that students are not effectively learning to prepare them for work they do after qualifying (Evans and Kelly 2004; Sharif and Masoumi 2005). Learning takes place when students apply what they have learned in classroom situation and practiced in a skills laboratory into the reality of nursing.

The discrepancy between nursing as it is taught in the classroom (theory) and nursing as it is experienced by students in the clinical setting (practice) has long been a source of concern to teachers, practitioners and learners. Many reasons have been cited for its existence as well as suggested ways of bridging the gap. There is evidence from literature that students' experiences in the clinical practice can either positively or negatively impact on their learning. The similarities and differences in the findings of the studies have shown that clinical learning environments are unique which may be attributed to differences in cultural, socio-economic in addition to curricula and organization of clinical nursing education. Therefore, research has to be conducted to explore nursing students' learning in the clinical practice across different countries.

This study was done to explore the nursing students learning in a Kenyan environment. The theory practice gap is a problem to many practice disciplines besides nursing that are based on a university education, such as medicine. The importance of overlapping the gap between theory and practice, and of supporting student nurses in feeling comfortable as becoming nurses, are highlighted in a number of studies. Chuan and Barnett (2005) demonstrate that there is a potential for students to develop and learn in learning environments if there are factors that can enhance the learning process.

2.2.1. Skills laboratory learning

Clinical laboratory are commonly used as teaching strategy to assist students to develop clinical nursing skills prior to attending compulsory clinical placements. Learning takes place when students apply what they have learned in classroom situation and practiced in a skills laboratory into the reality of nursing.

Perceptions of the link between skills taught at university and those used in clinical practice are important in ensuring that students are adequately prepared for clinical placement and that consistency exists to ensure safe practice.

In a study done by Croxon and Maginnis that examined the preparation of nursing students for the reality of the clinical setting, the results reinforced the need for clinical laboratories and theory as well as clinical placement and the hands of experience provides.

Inconsistencies in documentation and interacting with patients were identified between clinical laboratory and what was practiced in the clinical setting. Other discrepancies students identified included a need to increase the amount of stimulation with the skills practiced. The study showed that students strongly supported the view that the clinical laboratory classes prepared them for practice in the clinical setting.

Clinical laboratory sessions allow experimental learning to occur by undertaking activities and practicing genuine nursing. Clinical placements can be a frightening experience for a nursing student encounter an environment that is unfamiliar to them. The fear factor motivates students to practice clinical skills, thus becoming proficient in them. This in turn increases the students' confidence and they become more certain of their role.

It is essential that educators reiterate that theoretical component of progress while teaching practical procedures in a clinical skill laboratory. This can be achieved by utilizing a variety of teaching aids and strategies such as demonstrations with appropriate clinical scenarios, equipments, role play video aids, case studies and question sessions. This helps to integrate theory into practice. Use of clinical laboratories by student nurses is important and leads to improved learning experience both in clinical laboratories and practice setting.

2.2.2 Content coverage

The component of theory seeks to provide knowledge and skills to students before they implement the practice in clinical placements. Therefore content of theory has to be arranged systematically to make teaching implementation easier. The sequence and scope of the curriculum content are crucial content components in the organization of a curriculum. Scope involves the depth and breadth of the content. The scope is constructed in line with the sequence of the content of theory teaching (Orristein and Hunskin (2009). This is because students need to learn theory before they carry out at the clinical placement, for example, paramedic curriculum of the Malaysia ministry of health. This ensures that there's no gap between theory and practice. Educators in professional or service related fields desire their not only to learn theory and understand why theories are important but also to learn how to apply the theoretical frameworks in practice.

2.3 Clinical learning environment

Clinical practice prepares nursing students to become competent practitioners who will be able to provide quality health care and promote health of the people they serve. Apart from learning the skills, students are able to experience the real world of nursing in addition to the responsibilities of the nurse and develop interpersonal relationship with others (Benner et al. 2009; Sharif and Masoumi 2005). This indicates why clinical practice is important in nursing education. Learning in the clinical practice should be effectively facilitated in order to adequately prepare the nursing students for work after qualifying. Learning takes place when students apply what they have learned in classroom situation into the reality of nursing practice in the wards and other clinical areas. Evidence from literature suggest that there is a gap in integrating theory to practice which has been of concern for a long time in nursing education and which has had an impact on students learning in clinical skills (Ip and Chan 2005; Sharif and Masoumi 2005; Kelly 2007; Longley et al. 2007).

Extensive research has been carried out about learning in clinical practice for nursing students, the focus of which is primarily on areas such as the gap between theory and practice, learning environments, task involvement and participation, supervision and feedback. Some examples from each area are presented in the following review.

The clinical learning environment can influence nursing students learning positively or negatively (Frankel 2009). A conducive clinical learning environment is one that is

supportive with good ward atmosphere and acceptable relationships and is perceived to produce possible outcomes. (Papp et al. 2003; Edwards et al. 2004). An environment that positively influences learning is one where staff are happy, friendly, of good attitude and willing to teach and guide the students in providing quality patient care (Papp et al. 2003, Edwards et al. 2004, Papastvrou et al. 2010, Chuan and Barnett 2012). Students will confident and motivated to learn in an environment where they are respected, recognized, supported and regarded as part of the nursing team (Ip and Chan 2005; Hickey 2007; Kellys 2007, Henderson et al. 2010). In contrast relationship problems have been highlighted in some studies including staff being unfriendly, with bad attitude, and denying the students enough opportunities to learn (Cheraghi et al. 2012) Poor interactions may lead to frustration and thus, negatively affecting students learning and them getting necessary knowledge and skills to become competent practitioners. This study wanted to find out the students' perception of their clinical learning environment. Earlier organizational studies suggested that structural barriers and routines can work.

Kaphagawani et al (2013) did a literature review of students that explored nursing students learning experiences in the clinical practice and studies indicated the following. The quality of nurse education depends largely on the quality of the clinical experience that student nurses receive in the clinical environment (Henderson et al. 2006). The clinical practice takes place in an environment where patient care is provided as well as student learning (Ip and Chan 2005). Students' experiences in a clinical learning environment may have profound impact on their learning whether positively or negatively. Experiences, including application of theory to practice, effective mentoring and constructive feedback positively influence learning (Ralph et al. 2009). Nonetheless, poor relationships with clinical staff, lack of support from educators and lack of challenging learning opportunities are some of the negative experiences that may affect students' learning (Ip and Chan 2005). These experiences may differ from place to place or country to country.

A conducive learning environment is important since it allows students to learn (Meyers and Jones, 1993). It includes:

- Teachers being interested in students as individuals
- Acknowledgement of students' feelings about an assignment or pertinent issues by the teacher.
- Encouragement of asking of questions by the students to the teacher.
- Teachers communicating both openly and subtly that each person's learning is

important.

This study sought to evaluate Nairobi University nursing students' perception of their learning environment. As per my knowledge, this study is the first of its kind in the University of Nairobi. Recommendations may be made from the findings suggested by participants to improve the quality of learning by the undergraduate university students.

2.3.1 Congruence with class teaching

Too often we hear anecdotal accounts of students in internship who are unable to make this transition from theory to practice arises, at least in part, from a failure of the teacher to integrate both theory and practice into the same course in the curriculum in ways that are relevant and meaning to the student. Such integration helps students to more closely associate the practice value of learning theoretical concepts. Mendenhall (2007) says that in order for students to develop skills, education at the masters level, as well as practice experiences is necessary and expected.

There is need for an ongoing professional development model that directly connects training and practice. According to Gordon (2009), teachers should promote experiences that require active participation of the student, and that knowledge arises out of shared process of inquiry, interpretation and creation.

Dowey's (1985) belief that genuine knowledge derives not from abstract thought or by acting uncritically but rather by integrating thinking and doing, by getting the mind to reflect on the act. Gordon (2009) asserts that human learning, mental development and knowledge are embedded in a particular social and cultural context, as when students work with peers under teacher supervision.

In the handbook of experiential learning and management education, Hornyak, Circun and Heppard (2007) asserts that people learn best from direct experience coupled with guided reflection and analysis. Citing the work of Kolb (1984) and Fenwick (2001) experiences alone are not sufficient for learning to take place. Experiences must be followed by reflective thought and an internal processing that links the experience with previous learning, transforming the learner's previous understanding. Learning, therefore takes place within a cycle that includes action, reflection, and application. The educator's desire is to balance theory experience, classroom/practice and student/teacher roles is often achieved over the entire curriculum rather than in a single course. During clinical education placements, students are expected to learn nursing skills and procedures such that they can deepen the

search for knowledge, critical thinking and problem solving. They are also expected to develop personally and professionally.

2.3.2 Role modeling

Lecturers can be role models to students. Lectures not only teach theory in the lecture room but they also teach and perform clinical observations. Landmark et al (2003) and Corlett et al (2003) says that implementation of theory and practice can become more effective if the lecturers involve in theory teaching also teach and supervise the students during clinical practice. Where the lecturers conduct some discussions at the clinical placement every week, students should be able to connect theory and practice. Therefore lecturers become role models for the students to learn from and thus enhance learning of students (Cardin and Mcneese-Smith, 2005).

2.4 Clinical Supervision/Feedback

Supervision of nursing students in clinical practice plays a significant role in the nursing profession as it has an influence on the students learning of the knowledge and skills. Clinical supervision is necessary in facilitating learning in the clinical setting (Papp 2003, Hickey 2007, Saarikoski et al. 2007 and Papastravrou et al. 2010). Effective supervision by clinical teachers and mentors in the clinical environment is very important for students learning to happen. The clinical medical educators' role is to enhance learning through supporting, guiding and conducting timely and fair evaluations. However, in some studies felt that this role is not fulfilled as clinical nurse educators take more role of evaluation than supervision which is mainly done by regular nursing staff who lack teaching experience and may not know the needs of the students (Sharif and Masoumi 2005).

Clinical performance increases if students are given the necessary support in the clinical environment (Elicit and Sari 2007). Students are satisfied with regular supervisory discussions and guidance which provide individualized supervision (Papastavrouet al.2010; Warne et al. 2010). However, t has also been reported that students prefer group supervision as it promotes their personal and professional growth (Croxon and Maginnis 2009, Holmlundmet al.2010). This suggests that students have different preferences in clinical learning. Apart from clinical supervision, the studies have revealed that students perform better both academically and clinically if they have social support from peers and significant others (Ip and Chan 2005; Elcigil and Sari 2007). Lack of peer support in the clinical environment was manifested by conflicts, tensions and competitions for opportunities for

practice which is detrimental for learning (Chuan and Barnett, 2005). Students' relationships are important for learning. Students support each other, discuss about their practice, share knowledge, skills and experiences thus, being socialized in the profession (Bourgeois et al., 2011).

Lack of supervision may lead to the nursing students learning incorrect procedures as they lack guidance, become incompetent and lose interest in the nursing profession because they may feel frustrated in their work due to incompetence. Learning in clinical practice takes place if students know what they are doing is right or wrong. This is done through feedback that is provided to students from clinical nurses. These studies were relevant to my study as it sought to find the undergraduate nursing students perception of their clinical supervision and support from their peers.

Feedback upon evaluation is very important ingredient for effective learning. Clynes and Raftery (2008) define feedback as the process of providing information and insight to learners' about their performance. In one study, students expressed concern about feedback was always negative with poor communication or no feedback at all that ended up with them feeling demotivated (Elcigil and Sari 2008). It is believed that when students know their progress and deficiencies on their practice, and if they improve on their identified weaknesses, they get motivated and become confidence hence optimizing learning, leading to nursing skills growth (Clynes and Raftery 2008). This study sought to find out the nursing students perception on the feedback given to them in their clinical nursing skills.

2.4.1 Presence of a preceptor

The clinically experienced nurse preceptor serves as a role model, teacher and consultant to enable the students to be a competent and confident new nurse. The preceptor assists the student in the role transition by sharing valuable insights and wisdom from experience.

Preceptors in the clinical areas are expected to be helpful in making clinical education successful and reliable. A need for training and support of the preceptors has been demonstrated (Lee 1997). Some studies suggest that people learn best from direct experience coupled with guided reflection and analysis. Experiences alone are not sufficient for learning to take place. Experience must be followed by reflection thoughts and an internal processing that links the experience with previous learning transforming the learners' previous

understanding in some manner (Green, Heppard and Hornyak, 2007). Another study found that graduates of social work degree programs felt that their class work had not adequately prepared for real world practice (Claplan and Cree 2004). They concluded that there is a need for learning models that integrate theory and practice in ways that bring the field into the classroom as well as takes the classroom into the field. Therefore their goals should be pursued throughout the students' educational experiences and not only to a single clinical internship course.

2.5 Opportunities for clinical learning

Learning takes place if nursing students are given the opportunity to practice real nursing by doing the clinical tasks. Task participation can be referred to as students being offered the opportunities to learn and getting involved in the provision of patient care and not merely watching a series of tasks being performed by others (Henderson et al. 2012). Grealish and Ranse (2009) opine that task participation and eventual accomplishment facilitates the students' learning than just applying theory into practice. If the students' can be involved and manage to complete a challenging task, then theory can be said to have been translated into practice. Learning will then have taken place. Students require to be exposed to challenging opportunities for them to be able to learn critical and clinical judgment skills. According to Chuan and Barnett (2012) students reported a variety of learning opportunities which facilitated their learning. However, learning opportunities can be compromised if there is a high workload. This suggests that learning in the clinical practice for student nurses to become competent is dependent on availability of opportunities which encourages students to probe more and reflect on their experience hence becoming better at making clinical judgement. Task participation and accomplishment facilitates learning as it leads to development of clinical skill and confidence (Smedley and Morey 2009, Henderson et al. 2012). These studies are relevant to this proposed study as it sought to explore the nursing students' perception of their opportunities and involvement in task participation during their clinical placements.

It is suggested that students have to be given opportunities to practice different tasks to gain confidence, become perfect and learn from the mistakes they will make (Löfmark and Wikblad 2001). As much as this suggestion is ideal, the number of students in the nursing colleges has increased greatly such that students are not given adequate opportunities to learn. My opinion is that the increase in numbers of students' may lead to students not being

competent enough to handle some tasks when completing their training hence unable to provide quality care.

2.6 Theoretical framework

This research is based on Kolb's Experiential Learning Model, which argues that "learning is the process whereby knowledge is created through the transformation of experience" (Kolb 1984:38). Kolb (1984:30) suggests that experiential learning occurs in a four-stage cycle which involves four adaptive learning modes: concrete experience, reflective observations, abstract conceptualization and active experimentation. Kolb further identifies four distinct learning styles that are formed by the four adaptive learning modes, namely: divergent, convergent, accommodative and assimilative.

2.6.1 Historical background

Experiential learning has become an essential part of education from infancy to adulthood and also the method of choice for learning and personal development (Kolb 1984). In literature, experiential learning is related to the masters such as Dewey, Lewin and Piaget, who are regarded as the most intellectual forefathers of the experiential learning model. Kolb himself is viewed as the leader who advanced the practice of experiential learning (Kolb 1984).

The term "experiential learning" was so called because of the central role experience plays in the learning process (Kolb 1984). Students are directly in touch with the realities of what is being studied rather than only thinking about it. According to Kolb (1984), experiential learning strengthens the linkages between education, work and personal development. This idea has been supported by Dressler and Kneeling (2004) cited in Lee (2007), who indicate that experiential learning has personal, academic, work and career related outcomes as some of the benefits. Lee (2007) further states that experiential learning also allows for students to apply what they learn in the classroom in actual real-work experience, and vice versa. These linkages could occur in the classroom and the real world with experiential learning methods. The learning process, according to Kolb (1984), should ideally offer a system of competencies for describing job demands and corresponding educational objectives. Active involvement of students, student centeredness, a degree of autonomy, flexibility and interaction, some measure of autonomy and a high degree of relevance are the key characteristics of experiential learning. The contributions made by different authors to the understanding of experiential learning will now be briefly discussed.

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2.6.2 Contributions Made by Kurt Lewin

According to Kolb (1984), Lewin was concerned with the integration of theory and practice. He believed that for learning to occur there needs to be a dialectical tension and conflict between immediate concrete experience and analytical detachment, because in real life there is a conflict between what is taught in a clinical setting and theoretical content, and this is a central dynamic in the process of experiential learning (Kolb 1984). The process of experiential learning, according to Lewin, is an integrated process which begins with concrete experience, followed by collection of experience and information about the experience in which students reflect on the experience. Reflection leads to theory formation, from which new implications for action can be deduced. These implications arising from conceptualization help guide future action and new experiences (Kolb 1984).

2.6.3 Contributions by John Dewey

According to Kolb (1984), Dewey believed that it is through experiential learning that education, work and personal development are properly linked. Educational methods that are used should be able to translate the abstract ideas in education into practical realities (Kolb 1984). Dewey believed that because most of the students are not vigorously socialized into the classroom and textbook way of learning, field placement helps to capitalize on their practical abilities while applying ideas learned from classroom. He further believed that learning methods that combine work, theory and practice provide a good climate for learning (Kolb 1984). According to Kolb (1984), Dewey describes how learning transforms the impulses, feelings and desires of concrete experience into higher-order purposeful action. The formation of purpose is a complex and intellectual operation which starts with an observation of the surrounding conditions, leading to gathering of knowledge about the situation in the past through recollection, information and advice and makes a judgment based on what was observed and knowledge gathered and what it signifies. There is a great similarity between Lewin and Dewey because they both emphasize learning as a dialectic process that integrates experience and concepts, observations and ideas which give direction to impulse (Kolb 1984).

2.6.4 Contributions by Jean Piaget

According to Kolb (1984), Piaget`s focus was on the nature of intelligence and how it is shaped by experience. Piaget suggests that intelligence is not natural but is shaped by experience. Learning arises as a product of the interaction between the person and his/her

environment; this is similar to the learning models of Lewin and Dewey (Kolb 1984). Piaget sees the dimension of experience and learning, reflection and action as the basic continuum in the development of adult thinking.

According to Kolb (1984), Piaget suggests that in learning, mutual interaction takes place between the process of accommodating concepts or schemas to the experiences in the world and the process of assimilating events and experiences from the world into the existing concepts and schemas. Learning results from a balanced tension between these processes. When accommodation processes dominate assimilation, we have imitation-molding of the person to environmental contours or constraints, and when assimilation predominates over accommodation we have the imposition of the person's concept and images without regard to environmental realities (Kolb 1984). The process of cognitive growth from concrete to abstract and from active to reflective dimension is based on constant interaction between accommodation and assimilation (Kolb 1984).

2.6.5 Characteristics of experiential learning

Lewin, Dewey and Piaget's contributions to the understanding of experiential learning reflect similarities which could best be described using the following characteristics:

2.6.5.1 Learning is a process and not an outcome

Theories of experiential learning distinguish it in that it departs from the behavioural theories and traditional approach, holding that ideas are not fixed, but are formed and reformed through experience. Two thoughts are never the same because experiences always intervene. If learning is defined by outcomes, learning will not occur because there will not be modification of ideas. Therefore knowledge is regarded as a process and not a product (Kolb 1984).

2.6.5.2 Learning is a continuous process grounded in experience

It has earlier been indicated that learning occurs when the life experiences are transformed into knowledge; therefore knowledge will be continuously being formed and tested out in the experience of the student. Dewey, cited in Kolb (1984), indicated that "continuity of experience was a powerful truth of human existence to the theory of learning". This implies that experience will shape future decision making: what was learnt in the past becomes vital in understanding future experiences. Learning as a continuous process has important

educational implications. It implies that all learning is relearning; for example, every student enters the nursing profession with more or less accurate ideas about what nursing entails.

2.6.5.3 Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world

Kolb (1984) suggests that learning occurs when there is resolution of conflict when dealing with the world. For example, there are conflicting ideas in the Kolb's Experiential Learning Model between concrete and abstract experience abilities and between reflection and action. The process of development will only occur if the conflicting abilities are confronted and synthesized. In order for the students to be effective, they need all the four different kinds of abilities: concrete experience abilities, reflective observation abilities, abstract conceptualization abilities and active experimentation abilities. Students must choose the set of abilities in a specific situation which will enable them to move from being an actor to observer and from specific involvement to general analytic detachment (Kolb 1984).

2.6.5.4 Learning is a holistic process of adaptation to the world

According to Kolb (1984), experiential learning describes the central process of human adaptation to the social and physical environment. In order for the learning process to be viewed as holistic, it should integrate thinking, feeling, perception and behaviour. The learning process is broader; it also involves creativity, problem solving, decision making and attitude change (Kolb 1984).

2.6.5.5 Learning involves transactions between the person and environment

Traditionally, the teacher, classroom and textbooks were regarded as important for learning, rejecting the real world environment. With the experiential learning model, experiences rooted in the environment are important for learning (Kolb 1984).

2.6.5.6 Learning is the process of creating knowledge

Kolb (1984:36) emphasizes that knowledge creation occurs at all levels of life and is the result of the transaction between social and personal knowledge, which can be objective or subjective. But in the process of learning, knowledge will be derived where there is continuous transaction between the subjective and objective experiences (Kolb 1984). In order to understand knowledge, Kolb (1984) further indicates that there is a need to understand the psychology of the learning process and the origins, nature, methods and limits of knowledge.

2.7 Kolb's Experiential Learning Model

Kolb's Experiential Learning Model and the important concepts that form this model will now be discussed. Kolb's Experiential Learning Model affirms the centrality of experiential activities in the learning process, where human development occurs. According to Kolb (1984), learning is conceived as a four-stage cycle as depicted in figure below, adapted from www2.le.ac.uk.

Figure 1: Kolb's Learning Cycle
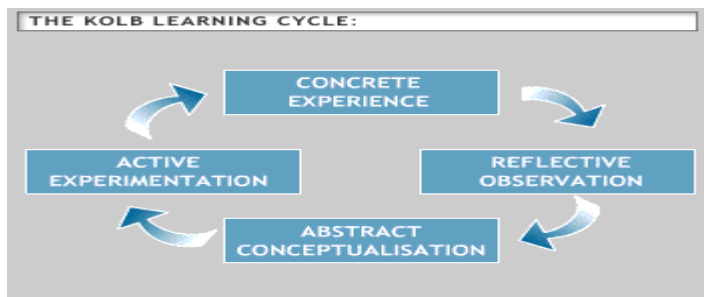
The experience could be attending a class, a field trip, an interaction or even demonstration of a skill or procedure. The experience brings about feelings as opposed to thinking, and problems at this stage are solved through intuition as opposed to a systematic, scientific approach. Concrete experience is the basis for observation and reflection from which concepts are assimilated and actively tested (Kolb 1984).

2.7.1 Reflection and observation

Reflection of the experience refers to becoming aware of the experience, recollecting details of the experience and gathering new information about the experience. Reflection as a concept was first established in education through the work of Donald Schön. The argument is that professional practice is the application of theoretical principles to solve problems. Theory and practice should therefore be seen as equal. An orientation towards reflective observation is based on understanding the meaning of ideas and situations by carefully observing and impartially describing them. The focus is on understanding as opposed to practical application (Kolb 1984). The reflector's practical experience to a large extent influences the ability to reflect on practice (Landmark et al 2003). Students can collect data about an experience while it occurs or after it has occurred. Reflection can take many forms, for example individually or in groups, written or verbally, in a structured or unstructured manner. Reflective observations allow students to learn from practice in a more in-depth way

that enhances practice, a new way of doing something, clarification of an issue, the development of a skill or the resolution of a problem.

2.7.2 Abstract conceptualization

Abstract conceptualization is about searching for the meaning of the experience, comparing and searching for possible connections between the reflected experience and other past experiences and linking this with the theoretical knowledge or attitudes". An orientation towards abstract conceptualization focuses on using logic, ideas and concepts. The emphasis is on thinking, as opposed to feeling and understanding through intuition. The focus is on building theories and solving problems through a scientific approach (Kolb 1984).

2.7.3 Active experimentation/testing implications of concepts in new situations

An orientation toward active experimentation is based on practical application as opposed to reflective understanding. Students at this stage put emphasis on doing as opposed to observing (Kolb 1984). Students test the implications of concepts and theories in solving problems and making decisions associated with new situations. These in turn lead to new experiences and in that way lead to integration of theory and practice. Learning occurs when a student utilizes one or more of the four modes of learning to resolve a problem. Therefore, in order for learning to be effective and ensure integration of theory and clinical practice, the experiential learning cycle should be completed. Students should be guided through the various stages of the cycle to ensure that crucial links are made between the different stages. In that way the students will be able to draw the links between theory and clinical practice.

2.7.4 Kolb's learning styles

Students develop preferences for using one learning mode over others and this is described as their learning style. It is important for educators to assess and understand the learning styles of students as this helps both the educators and the students to develop a more constructive and successful relationship, which is essential in any teaching learning environment. According to Kolb (1984) the different learning styles are convergent, divergent, assimilative and accommodative, as depicted in the figure. According to Kolb (1984), the different learning styles can be attributed to the influences of heredity, life experiences and environment.

Figure 2: Kolb's four learning styles
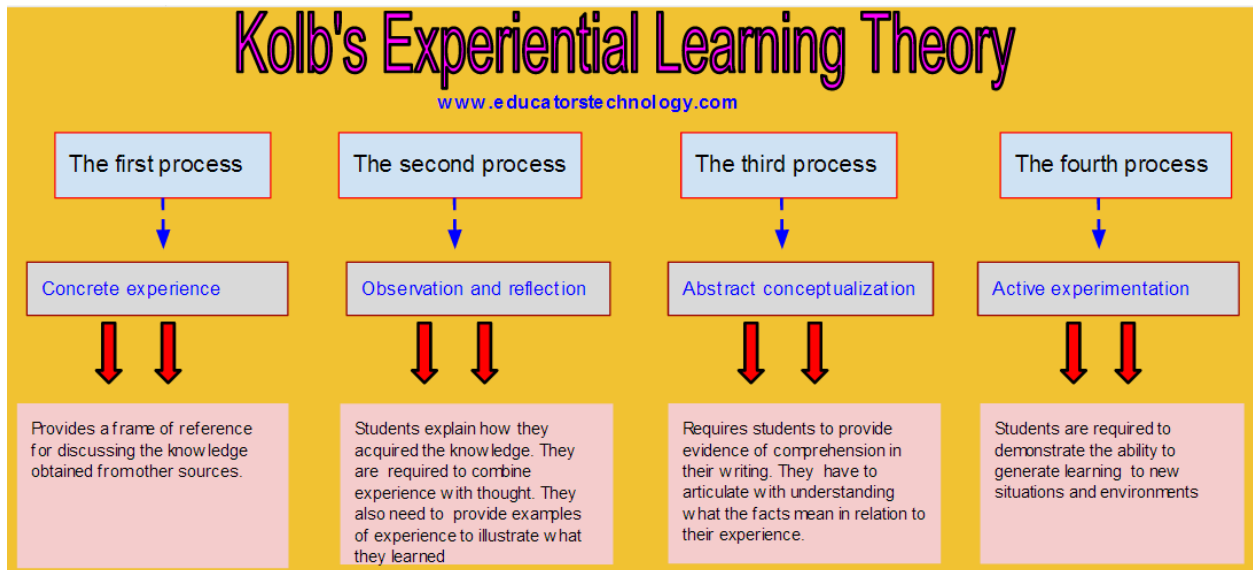
Adapted from www.educatorstechnology.com.

2.7.4.1 Convergent

Individuals who rely on this style have the dominant abilities of abstract conceptualization and active experimentation. These individuals learn by thinking and doing. They prefer to experiment actively with ideas and test the practical relevance of those ideas. According to Quinn and Hughes (2007), their strength lies in problem solving and decision making. This style is named "converger" because individuals using this style prefer conventional methods where there is a single answer to a solution or problem. Problems are solved through deductive reasoning. Individuals using this style are unemotional and prefer dealing with technical tasks rather than people (Kolb 1984).

2.7.4.2 Divergent

Divergers perceive information through concrete experience and process it by reflective observation Divergers' strengths are the opposite of those of convergers. Their strength lies in their imaginative abilities and awareness of meaning and values. Divergers view concrete experiences from many perspectives and the emphasis is on observation rather than action. Individuals using this style perform better in situations requiring generation of alternative ideas and implications. They are people-oriented and tend to be imaginative and feeling-oriented. They prefer to have information presented to them in a more detailed systematic manner (Kolb 1984).

2.7.4.3 Assimilative

Assimilators perceive information through abstract conceptualization and process it by reflective observation (Little 2004). Their greatest strength lies in inductive reasoning and the use of theories in assimilating disparate observations into an integrated explanation; they are less interested in people and are more concerned with ideas and abstract concepts (Kolb 1984)

2.7.4.4 Accommodative

Accommodators perceive information through concrete experience and process it by active experimentation. Individuals using this style have the opposite strengths from assimilators. Their greatest strength lies in doing things through hands- on experience: by doing and feeling, carrying out plans and tasks and getting involved in new experiences. This style is called "accommodative" because these individuals can adapt to changing situations as and when the situation requires it. They tend to solve problems in an intuitive, trial-and-error manner. They rely heavily on other people for information rather than on their own analytical ability. They are easy with people but are sometimes regarded as impatient and "pushy" (Kolb 1984) indicating that accommodators are usually found in action-oriented positions such as marketing or sales.

From the above description of the different learning styles, it is clear that students have their preferred way of learning and may view their own style as the best. As an example, accommodators may see assimilators as theorists and assimilators may see accommodators as pragmatists. Divergers may see convergers as narrow minded and convergers may see divergers as indecisive.

CHAPTER THREE: STUDY METHODOLOGY

3.1 Study design

This study was done utilizing a cross-sectional quantitative descriptive and qualitative study design to evaluate the clinical learning experiences as perceived during clinical practice by the undergraduate nurses studying at the University of Nairobi, Kenya.

3.2 Study setting

The study setting was at the Kenyatta National Hospital, a tertiary national referral hospital which is located on Ngong road in Nairobi, Kenya. The University of Nairobi's medical schools including the School of nursing, utilize this tertiary hospital as their principal teaching and clinical training site. The hospital has 1800 beds in operation, which is equipped to handle medical, surgical, obstetric and gynaecologic and paediatric patients.

3.3 Study population

The study population was comprised of the University of Nairobi nursing school undergraduate students. This university had been chosen for being among the first universities in the country to start degree nursing courses. In addition, they have large number of students in training.

3.4 Inclusion criteria

All second, third and fourth year Nairobi University undergraduate nursing students in the clinical areas at the time of this study and who consent to participate were included in this study.

3.5 Exclusion criteria

The following were be excluded from the study:

- Non consenting undergraduate nursing students
- Undergraduate Nursing students who have never been in clinical placements
- Undergraduate students who are not students in the nursing school
- E-learning nursing students not on clinical placement
- First year undergraduate students.

3.6 Sample size determination

The sample size was determined using the formula below described by Mugenda and

Mugenda (2003)

$N = z^2pq/d^2$

Where,

N=the desired sample size if the target population is >10000

Z= the standard deviation at the required confidence interval of 95% which is 1.96

P=the proportion in the target population estimated to have characteristics being measured, 50% used in this case as recommended by Fisher et al 1983(cited by Mugenda and Mugenda 2003 page 43)

Q=1-p

D=the level of statistical significance set, taken as 0.05

Thus N= $(1.96)^2(0.5) (0.5)/ (0.05)^2 = 384$ (The sample size if the population is above 10000).

Since the population of students is less than 10000, the alternative formula was used to calculate the sample size. That is;

$$nf= \frac{n}{1+n/N}$$

Where

nf=The estimated sample size if the target population is less than 10000

n=the estimated sample size when the population is more than 10000, which is 384

N=the estimated total population size of third and fourth year students which is 171

Hence the minimum sample size will be

$Nf=384/ 1+ (384/171) \approx 118$

The participants was distributed as shown in the table 3.1 according to their ratios

Table 1: Sample size distribution

Target group	Target population	Procedure	Minimum Sample size
2nd year students	54	54/171*118	37
3rd year students	58	58/171*118	40
4th year students	59	59/171*118	41
Total	171		118

Therefore the sample size was 136 participants after adding 20% of non-response rate. Moreover, two (2) focus group discussions (FGDs) were conducted among 3rd and 4th year students. One FGD was consisted of eight (8) participants.

3.7 Sampling

Random sampling was used to identify participants. This sampling was employed to select undergraduate nursing students (participants) attending clinical placements at the KNH. Participants were recruited at the clinical areas where they had gone to participate in the clinical practice. It was anticipated that not all participants would consent to the study therefore every participant who agreed to join the study was recruited. All consenting participants attending clinical placement under this study and who had presented themselves to the clinical areas for practice had the questionnaire filled after they sign the informed consent form. The FGDs were selected purposively from 3rd and 4th year students.

3.8 Sampling method

3.9 Study instrument

A pre-coded self-administered questionnaire was developed and used to collect quantitative data from the sampled undergraduate nursing students. The questionnaire included the respondents' bio-data. The questionnaire included questions related to the study objective areas: skills/practice, knowledge and practice, environment, task involvement and participation and ability to operate medical devices. Focus group discussions were used to collect qualitative data.

Purposive selection of students was done. Two Focus group discussions each with eight respondents were chosen to participate from 3rd year and 4th year students. Themes A list of all second, third and fourth year undergraduate nursing students of the University of Nairobi nursing school was drawn. A piece of paper was prepared for 'yes' and 'no'. 136 were indicated with 'Yes' and 35 were written with 'No' then all were placed in a bowl and mixed thoroughly. The blind-folded participants then picked papers from the bowl. All the individuals picked the 'Yes' were the participants for the study. All those who voluntarily consented to participate in the study were engaged in the study.

comprising the objectives of the study were used in the discussion of the focus group.

3.10 Reliability

A pretesting was done. The aim was to identify inconsistency and lack of clarity in the questions. Accurate and careful phrasing of each question to avoid ambiguity and leading to a particular answer ensured reliability of the data study collection instrument. Cronbach alpha reliability test was done to ascertain internal consistency of the research instrument and it was

0.9. According to Mugenda and Mugenda (2003) a reliability coefficient of 0.8 or more implies that there is a high degree of reliability of the data.

3.11 Validity

The research conducted a face validity and content validity by giving the instrument to an independent nurse expert and statistician to evaluate for conceptual and investigative bias.

3.12 Data Collection

3.12.1 Questionnaire

Data was collected by the principal researcher and two research assistants within a period of approximately six to twelve weeks. Two research assistants were recruited to assist in data collection. They were explained on the purpose of the study, its objectives and they were trained on the use of the data collection tool prior to commencement of data collection. The questionnaires were given only to consenting eligible respondents after a full explanation of the purposes and benefits of the study. The respondents signed an informed consent before embarking on filling the questionnaire. They were given adequate time to fill the questionnaire. After completion, the questionnaires were collected from the participants by the principal researcher or by the research assistants. In case of any difficulties among the respondents in filling the questionnaire, the researcher or assistants assisted in clarifying the difficult part for ease of understanding. The data collection tool has been attached as an appendix to this dissertation.

This study assumed that the respondents are proficient in English and would comprehend the questions well and would be open and honest in responding to the questions. The study assumed that the theory taught in class was applied in the clinical settings by the nursing students.

3.12.2 Focus Group Discussions

An FGD was used to capture qualitative data from the students. A guideline was prepared and the main themes included in the discussions were theoretical knowledge preparation, clinical learning environment, clinical supervision and feedback and opportunities for clinical learning.

3.13 Data Cleaning and Storage

After collection of the questionnaires, the principal researcher verified them for accuracy and

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

3.14 Data Analysis and Presentation

Data was double-entered and validated before final analysis. The SPSS software version 20 was used for analyzing the data. Frequencies were calculated for the various responses as per the study objectives. Descriptive statistics was used to group the data in ways to make it easier to make inferences. Frequencies and percentages among the variables identified by the respondents were categorized to identify the most and least frequent. Descriptive statistics was used to present data in the form of bar charts, frequency tables and pie charts.

A statistician was sought to ensure that all aspects of the study objectives were taken care of during the analysis. Subgroups according to various variables were compared with chi-square test for trends. Focus group discussion analysis was done through manual thematic analysis of data and report done by verbatim reporting quotation of data.

3.15 Ethical Considerations

Permission to conduct this study was obtained from the KNH/UON ethics and research committee. Written informed consent was obtained from the study participants, and confidentiality of responses to both the questionnaire and personal data sheet was assured. The participants were provided essential information for informed consent, and their signatures were taken on the consent form. All efforts were carried out to maintain confidentiality and anonymity of the participants at all times during the study. The participants' names were not indicated on the questionnaire sheets, rather were number coded thus allowing participants to be anonymous. The participants were informed of the right to withdraw from the study at any time and that there were no potential physical, economical, or legal harm to them. It was explained to them that although there would be no direct personal benefits to the participants, the findings of this study would serve to provide a collective benefit to the nursing profession. All data of the study was kept in locked cabinets. All computers having data related to the study have passwords where only the principal researcher can access the information related to this study. The findings of this study will be

shared through seminars and conferences. The principal researcher also plans to publish the findings of this study in peer reviewed journals.

3.16 Study limitations

Securing consent was challenging as the students may have reservations with regard to answering some questions which they may consider threatening to their studies and clinical placement positions. This factor was minimized by providing full explanations about the study purpose and assuring confidentiality, maintaining an environment conducive for the interviews and promising anonymity.

CHAPTER FOUR: RESEARCH FINDINGS

4.1 Introduction

This chapter deals with the interpretation and presentation of the findings of the study with regard to the stated objectives and research questions. A total of 131 participants (students) were consented to participate in this study with response rate of 96.3%. The results are presented in table and graph forms.

4.2 Socio-demographic characteristics of the respondents

The distribution of socio-demographic characteristics among the study participants is shown in Table 4.1. The mean age of the respondents was 22.4 years. The findings also show that 31.3% (n=41) were within the age group of 19-21 years, 58.8% (n=77) were within 22-24 years and the age group of 25-28 years were 9.9.5% (n=13). Slightly more females 55% (n=72) were participated in the study compared to males 45% (n=59). Most (93.9%, n=123) of the respondents were single while the remaining 6.1% (n=8) were married. Regarding year of study, 40.5% (n=53) were 4th year, 30.5% (n=40) were 3rd year and 29% (n=38) were from 2nd year students.

Table 4.1 : Socio-demographic characteristics of the participants

Selected socio-demographic characteristics	Frequencies (n=131)	Percentages (%)
Mean of age ($\pm$SD)	22.4($\pm$1.7)	
Age in years		
19-21	41	31.3
22-24	77	58.8
25-28	13	9.9
Sex		
Male	59	45.0
Female	72	55.0
Marital status		
Single	123	93.9
Married	8	6.1
Year of study		
2nd year	38	29.0
3rd year	40	30.5
4th year	53	40.5

4.3 Number of clinical placements attended previously

Majority (63.4%, n=83) of the study participants claimed that they had attended greater than five clinical placements previously as depicted in Figure 4.1 below.
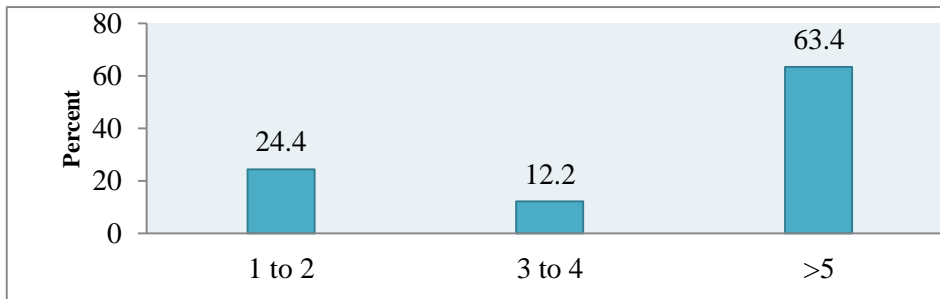
Figure 4.1: Number of clinical placements attended previously

4.4 Theoretical knowledge preparation

Descriptive analysis theoretical knowledge preparation towards clinical practice among the study participants on 9 statements is presented in Table 4.2. The results are presented in frequencies and percentages according to the responses of strongly disagree, disagree, not sure, agree and strongly agree. The table shows that most of the participants agreed and strongly agreed with all of the statements. About two thirds (64.9%, n=85) of the respondents had agreed that they got the necessary knowledge and skills from the skills laboratory to provide nursing care in the clinical area. The same percentage also agreed that they had the necessary knowledge to do their placement.

Out of 131, almost half (50.4%, n=66) of the respondents agreed that they had the skills needed to utilize the equipment to do their job. Similarly, (50.4%, n=66) agreed that they had knowledge of anatomy and physiology and the normal structure and functions of the human body followed by 46.6% (n=61) who were strongly agreed on the same statement. More than half (58%, n=76) had also agreed on the knowledge of the medical and nursing terminology used in communicating, reporting and documenting in the clinical area. Eighty one (61.8%) 58.8% (n=77) and 52.7%(n=69) of the participants agreed that they had knowledge of a variety of nursing procedures, knowledge/ability to assess patients and knowledge of nursing process respectively.

Table 4.2: Theoretical knowledge preparation

Statements	Strongly Disagree, n(%)	Disagree, n(%)	Not sure, n(%)	Agree, n(%)	Strongly Agree, n(%)
I have got the necessary knowledge and skills from the skills laboratory to provide nursing care in the clinical area	1(0.8%)	15(11.5%)	14(10.7%)	85(64.9%)	16(12.2)
I have the necessary knowledge to do my placement	1(0.8%)	7(5.3%)	15(11.5%)	84(64.1%)	24(18.3%)
I have the skills needed to utilize the equipment to do my job	3(2.3%)	10(7.6%)	22(16.8%)	66(50.4%)	30(22.9%)
I have knowledge of anatomy and physiology and the normal structure and functions of the human body	-	1(0.8%)	3(2.3%)	66(50.4%)	61(46.6%)
I have knowledge of the medical and nursing terminology used in communicating, reporting and documenting in the clinical area	3(2.3%)	4(3.1%)	8(6.1%)	76(58%)	40(30.5%)
I have knowledge of the nursing process - assessment, planning, caring, and evaluation	1(0.8%)	3(2.3%)	18(13.7%)	69(52.7%)	40(30.5%)
I know how and where to find evidence to support the provision of safe, competent, and ethical nursing care	4(3.1%)	8(6.1%)	24(18.3%)	68(51.9%)	27(20.6%)
I have knowledge of a variety of nursing procedures	1(0.8%)	3(2.3%)	6(4.6%)	81(61.8%)	40(30.5%)
I have the knowledge and ability to assess patients	1(0.8%)	3(2.3%)	6(4.6%)	77(58.8%)	44(33.6%)

4.4.1 Overall score assessment for theoretical knowledge preparation

The overall score of theoretical knowledge preparation towards clinical practice among the participants was assessed using the nine (9) statements presented in Table 4.2. The score 1 represented the option "strongly disagree", 2 for "disagree", 3 "not sure", 4 "agree" while score 5 on the scale represented the category "strongly agree". The overall score was generated by aggregating the scores. The maximum attainable total score was 45. A percentage score was generated and classified as Low (<=50%), Moderate (50%-75%) and High (>75%). About three fourth of the respondents (74.0%, n=97) scored high theoretical knowledge preparation (Figure 4.2).
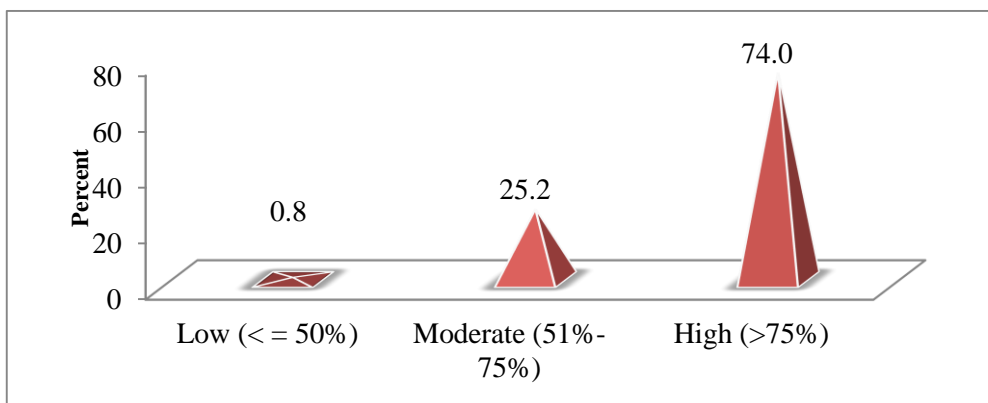
Figure 4.2: Overall score assessment for theoretical knowledge preparation

4.4.2 Focus group discussion (FGDs) on the theme of theoretical knowledge preparation

The results from the FGDs reveal that majority of the participants indicated that the theoretical knowledge preparation in the class were sufficient. However, they reported that there is no conducive environment or ground to apply the theories in the clinical areas. They also stated that there was lack of time and limited equipment among the others. Moreover, the main obstacles for theoretical knowledge preparation which have been pointed out in the FGDs are as indicated by the following quote;

> *"Adequate and actually in some areas is more like (pharmacology) what is learnt in class is more for nurses than needed in ward"* (FGD 1; Participant 2).

> *"Sufficient but not able to implement what taught in class because there is no time"* (FGD 1; participant 5).

> *"Adequate application in ward is little because the nurses are too busy or equipments are not enough"........* (FGD 1; participant 6).

"Sufficient but in the wards there is lots of improvisation"......(FGD 1; participant 8).

"No interphase for someone to merge the knowledge" (FGD 1; Participant 5).

"Sufficient but ideal is not practised in the clinical because of lack of equipment thus improvising" (FGDs 1; Participant 2).

"Theoretical information is enough but not practical thus becomes difficult to apply"....... (FGD 2 participant 6; FGDs 1 participant 7).

" What is taught in class is ideal but procedures are not done well due to lack of some facilities"..........(FGD 2; participant 1).

"The amount of knowledge in terms of skills is not adequate because there is no time to practise it in the skills lab"........(FGD 1 participant 1;FGD2; participant 2).

4.5 Clinical learning environment

Table 4.3 below reveals responses of study participants on 6 statements about clinical learning environment. The results are presented in frequencies and percentages according to the responses of strongly disagree, disagree, not sure, agree and strongly agree. About half of the respondents (52.7%, n=69) agreed that they had access to the necessary equipment for their work in clinical area, however, about a quarter (21.4%, n=28) had disagreed on the statement. On the statement of congruence between the things learnt in class and the practice in the ward, about half (52.7%, n=69) had agreed followed by 24.4% (n=32) strongly agreed. There was almost equal distribution on the statement that states nurses in the ward are good role model where 21.4% (n=28) disagreed, 22.1%(n=29) were not sure and 35.9%(n=47) were agreed on the statement. Fifty four (41.2%) agreed that the nursing staff in the ward always demonstrates procedures but considerable number (30.5%, n=40) did not agree on the same statement. More than half (55.0%, n=72) of the respondents agreed that the clinical environment encourages participation.

Table 2.3 : Clinical learning environment

Statement	Strongly Disagree, n(%)	Disagree, n(%)	Not sure, n(%)	Agree, n(%)	Strongly Agree, n(%)
I have access to the necessary equipment for my work in clinical area	5(3.8%)	28(21.4%)	15(11.5%)	69(52.7%)	14(10.7%)
There is congruence between the things learnt in class and the practice in the ward	3(2.3%)	19(14.5%)	8(6.1%)	69(52.7%)	32(24.4%)
The nurses in the ward are good role model	22(16.8%)	28(21.4%)	29(22.1%)	47(35.9%)	5(3.8%)
The nursing staff in the ward always demonstrates procedures	12(9.2%)	40(30.5%)	16(12.2%)	54(41.2%)	9(6.9%)
The clinical environment encourages participation	9(6.9%)	20(15.3%)	9(6.9%)	72(55.0%)	21(16.0%)
The nursing staff in the ward are friendly	12(9.2%)	23(17.6%)	27(20.6%)	58(44.3%)	11(8.4%)

4.5.1 Overall score assessment of clinical learning environment

The overall score of clinical learning environment among the participants was assessed using the six (6) statements presented in Table 4.3. The score 1 represented the option "strongly disagree" while score 5 on the scale represented the category "strongly agree". The overall score was generated by aggregating the scores. The maximum attainable total score was 30. A percentage score was generated and classified as Low (<=50%), Moderate (50%-75%) and High (>75%). About half of the respondents (48.9%, n=64) scored moderate on clinical learning environment followed by 35.9% (n=47) with high score and 15.3%(n=20) with low score(Figure 4.3).
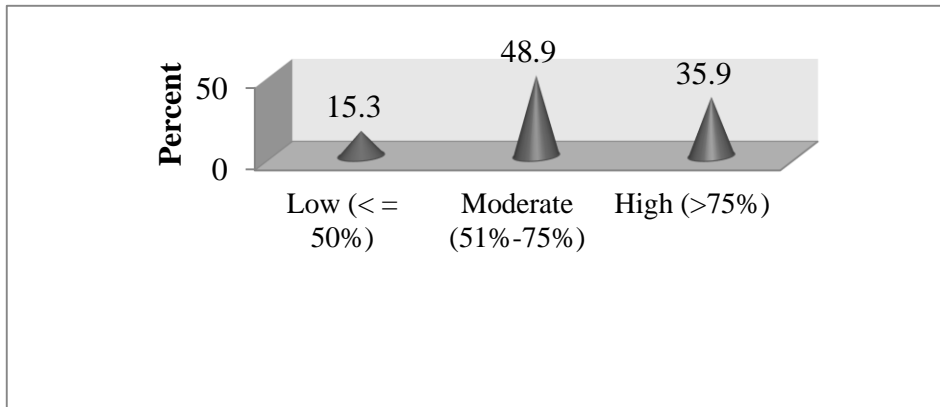
Figure 4.3 : Overall score assessment of clinical learning environment

4.5.2 FGDs on the theme of clinical learning environment

Analysis of the qualitative data on the clinical learning environment showed that there is a lot of improvisation without prior due preparation, there is no harmony between the lecturer and clinical instructor, less time allocated in the placement, too much workload and too many students in certain wards. However, some participants have admitted that it is the personal initiatives. It was also reported that some wards have nurses who are good role models while others have nurses who have a bad attitude towards the students so are not ready to assist them to learn. For instance they have mentioned as follows:

> *"It provides with practise opportunity except that there is a lot of improvisation"*(FGD 1participants 2 and 3; FGD2 participant 5).
>
> *"There is no congruence between the lecturer and the clinical instructor"…..* (FGD1, participant 6)
>
> *"I can say it is a personal initiative.....if she/he is willing to learn it is a good environment"*(FGD participant 4).
>
> *"Those in the wards misuse us they do not have the objectives...They think that you are rebellious"* (FGD 1, participant 7).
>
> *"Environment is not adequate, the number of students in a certain ward are many....the nurses have the impression we are there to help them to do their duties....its therefore your own initiation"* (FGD 1 participant 1 and FGD 2 participant 6)
>
> *"The nurses just allocate you…..and wanaenda kunyua chai.....they do not demonstrate procedures"* (FGD 2 participant 4).

4.6 Clinical supervision

Table 4.4 below demonstrates responses of study participant's on clinical supervision practice using 5 statements. The results are presented in frequencies and percentages according to the responses of strongly disagree, disagree, not sure, agree and strongly agree. Fifty nine (45.0%) of the respondents agreed that their preceptors listen to their clinical concerns. However, 20.6% (n=27) disagreed on the same statement. More than half (57.3%, n=75) agreed that they were working with supportive classmates. The table further shows about one third (35.1%, n=46) agreed that preceptors observes student performance frequently and a quarter (24.4%, n=32) disagreed on the statement.

Table 4.4: Clinical supervision

Variable	Strongly Disagree, n(%)	Disagree, n(%)	Not sure, n(%)	Agree, n(%)	Strongly Agree, n(%)
My preceptor listens to my concerns	11(8.4%)	27(20.6%)	24(18.3%)	59(45.0%)	10(7.6%)
I am working with supportive classmates	2(1.5%)	5(3.8%)	4(3.1%)	75(57.3%)	45(34.4%)
My preceptor is open and honest with me	7(5.3%)	23(17.6%)	29(22.1%)	55(42.0%)	17(13.0%)
Preceptors observes student performance frequently	17(13.0%)	32(24.4%)	20(15.3%)	46(35.1%)	16(12.2%)
Our teachers communicates expectations of students	7(5.4%)	18(13.7%)	7(5.3%)	69(52.7%)	30(22.9%)

4.6.1 Overall score assessment for clinical supervision

The overall score for clinical supervision among the participants was assessed using the five (5) statements presented in Table 4.4. The score 1 represented the option "strongly disagree" while score 5 on the scale represented the category "strongly agree". The overall score was generated by aggregating the scores. The maximum attainable total score was 25. A percentage score was generated and classified as Low (<=50%), Moderate (50%-75%) and High (>75%). Sixty two (47.3%) of the respondents scored high on clinical supervision followed by 44.3% (n=58) with moderate score (Figure 4.4).
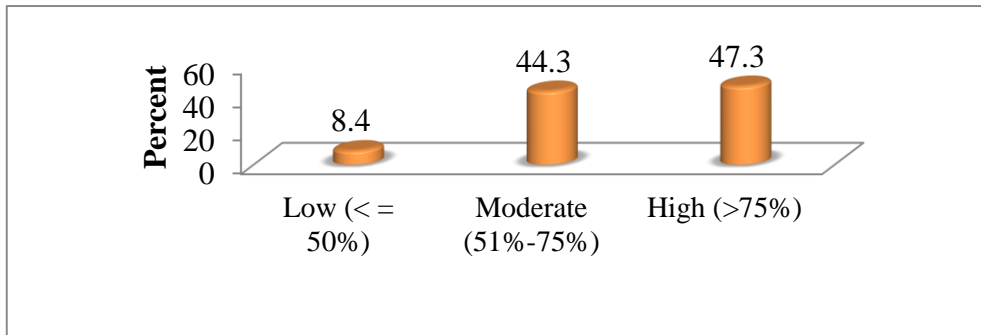
Figure 4.4: Overall score assessment for clinical supervision

4.6.2 FGDs on the theme of clinical supervision

As indicated from the FGDs on the clinical learning environment, all of the participants stated that "*not all wards have clinical instructors and where there is, they observe students' performance....however clinical instructors should come from school not from the wards....preceptors should be given student objectives to be able to follow up with their progress and support them*".

They also said that where they were no preceptors some nurses could demonstrate procedures but some had bad attitudes towards them. They agreed that expectations were communicated to them by their teachers but were not clearly communicated to the nurses at the wards.

4.7 Clinical feedback

The descriptive analysis towards clinical feedback is shown in Table 4.5 using 5 statements. The results are presented in frequencies and percentages according to the responses of strongly disagree, disagree, not sure, agree and strongly agree. More than half of the respondents (58.0%, n=76) and (54.2%, n=71) agreed that they had received a meaningful performance progress and support/encouragement from supervisors respectively. However, a highest percentage (38.9%, n=51) disagreed on the supervisors' regular feedback. Even though the highest percentage (46.6%, n=61) had agreed that their supervisors recognize and appreciate their work, 22.1% (n=29) disagreed on the statement.

Table 4.5: Clinical feedback

Statement	Strongly Disagree, n(%)	Disagree, n(%)	Not sure, n(%)	Agree, n(%)	Strongly Agree, n(%)
My supervisor provides me with regular feedback	13(9.9%)	51(38.9%)	13(9.9%)	49(37.4%)	5(3.8%)
My supervisor recognizes and appreciates my work	9(6.9%)	29(22.1%)	19(14.5%)	61(46.6%)	13(9.9%)
I have received a meaningful performance progress	6(4.6%)	15(11.5%)	16(12.2%)	76(58.0%)	18(13.7%)
My supervisor corrects mistakes without belittling me	14(10.7%)	24(18.3%)	12(9.2%)	64(48.9%)	17(13.0%)
My supervisor/s provides support and encouragement	11(8.4%)	16(12.2%)	15(11.5%)	71(54.2%)	18(13.7%)

4.7.1 Overall score assessment for clinical feedback

The overall score assessment for clinical feedback among the respondents was assessed using the five (5) statements presented in Table 4.5. The score 1 represented the option "strongly disagree" while score 5 on the scale represented the category "strongly agree". The overall score was generated by aggregating the scores. The maximum attainable total score was 25. A percentage score was generated and classified as Low (<=50%), Moderate (50%-75%) and High (>75%). Fifty Six (42.7%) of the respondents scored moderate on clinical feedback followed by 40.5% (n=53) with high score and 16.8% (n=22)(Figure 4.5).
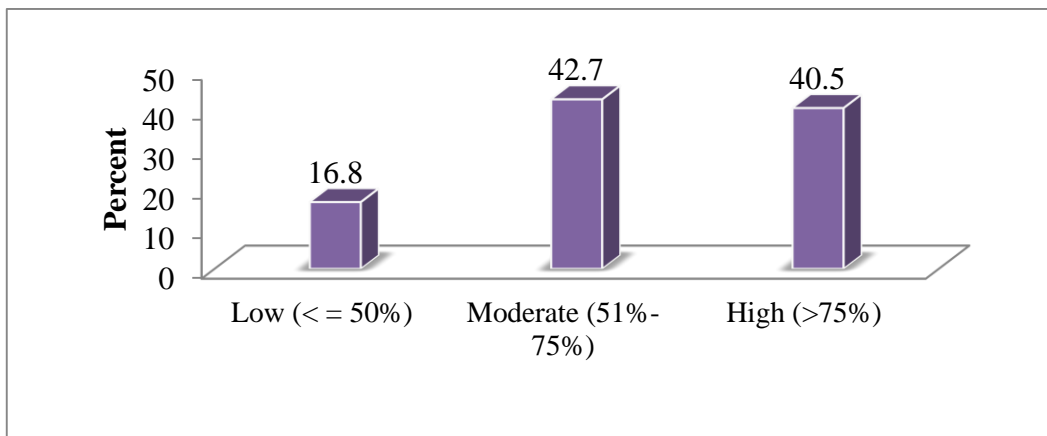
Figure 4.5: Overall score for clinical feedback

4.7.2 FGDs on the theme of clinical feedback

The clinical feedback among the students was assessed using FGDs to supplement the qualitative analysis on clinical feedback. Majority have said that there is very low feedback from the supervisors though some are dedicated. The statements on the feedback which have been pointed out in the FGDs are as indicated by the following quote;

> *"No clinical supervision, none at all only they come during assessment time.....even the senior nurses just orientate us and go.... "* (FGD 1 participants 1 and 5; FGD 2 participant 1 and 6).

> *"Some supervisors are dedicated others are not"...*(FGD 1 participant 3).

> *"The supervisors show up on assessment days and at times come to check if we go to the wards...some nurses do help in teaching us in the clinical"* (FGD 2 participant 4).

> *"Not at good level in what it should be, some are good others have bad attitude....formed opinions...look at you and think you are lazy".......*(FGD 2 participant 2).

> *"The nurses allocate you under one nurse, all you do is helping her out"....*(FGD 2 participant 2 and 7).

The rest of the participants agreed that there is supervision in some wards but not in other wards.

4.8 Opportunities for clinical learning

Table 4.6 shows responses of study participant's on opportunities for clinical learning practice using 11 statements. The results are presented in frequencies and percentages according to the responses of strongly disagree, disagree, not sure, agree and strongly agree. About two third (66.4%, n=87) agreed that there was appropriate assessment tools and techniques in assessing clients. More than half (60.3%, n=79) and (59.5%, n=78) also agreed that they were able to effectively manage the workload expected of them and collect information on the client's health status using different techniques respectively. The table further demonstrates that about half of the respondents agreed on the remaining statements.

Table 4.6: Opportunities for clinical learning

Variable	Strongly Disagree, n(%)	Disagree, n(%)	Not sure, n(%)	Agree, n(%)	Strongly Agree, n(%)
I use appropriate assessment tools and techniques in assessing clients	2(1.5%)	10(7.6%)	6(4.6%)	87(66.4%)	26(19.8%)
I am able to effectively manage the workload expected of me	4(3.1%)	14(10.7%)	11(8.4%)	79(60.3%)	23(17.6%)
I have the skills needed to utilize the technology/equipment to do my job	5(3.8%)	14(10.7%)	16(12.2%)	67(51.1%)	29(22.1%)
I collect information on the client's health status using interviewing, history taking, and interpretation of laboratory data	1(0.8%)	5(3.8%)	4(3.1%)	78(59.5%)	43(32.8%)
I assess the client's vital signs, e.g. temperature, pulse, blood pressure, etc	1(0.8%)	3(2.3%)	1(0.8%)	59(45.0%)	67(51.1%)
I analyze and interpret data obtained in the client assessment to make a nursing diagnosis	1(0.8%)	9(6.9%)	4(3.1%)	66(50.4%)	51(38.9%)
I develop care plans with other health team members to ensure continuity of care	4(3.1%)	24(18.3%)	15(11.5%)	61(46.6%)	27(20.6%)
I know when consultation is required with other nursing team members on patients health	-	10(7.6%)	13(9.9%)	68(51.9%)	40(30.5%)
I know the common medical disorders in the ward am placed in	-	2(1.5%)	7(5.3%)	72(55.0%)	50(38.2%)
I am allowed to administer medicines in the ward	3(2.3%)	5(3.8%)	3(2.3%)	72(55.0%)	48(36.6%)
*I have been denied opportunities to be involved in ward procedures	43(32.8%)	47(35.9%)	6(4.6%)	22(16.8%)	13(9.9%)

*Negatively worded statement

4.8.1 Overall score assessment opportunities for clinical learning

The overall score of opportunities for clinical learning practice among the respondents was assessed using the eleven (11) statements presented in Table 4.6. The score 1 represented the option "strongly disagree" while score 5 on the scale represented the category "strongly agree" for positively worded and opposite for negatively worded. The overall score was generated by aggregating the scores. The maximum attainable total score was 55. A percentage score was generated and classified as Low (<=50%), Moderate (50%-75%) and High (>75%). Majority (73.3%, n=96) of the respondents scored high on opportunities for clinical learning followed by about a quarter 26.0% (n=34) who scored moderate (Figure 4.6).
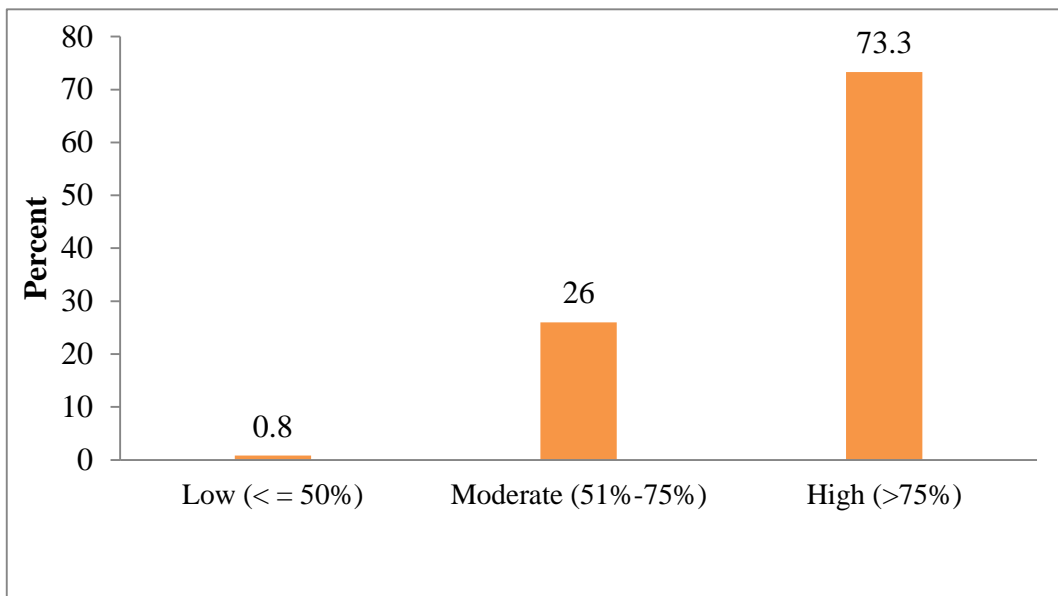
Figure 4.6: Overall score assessment opportunities for clinical learning

4.8.2 FGDs on the theme of opportunities for clinical learning

The interviews on opportunities for clinical learning demonstrated that there is a good opportunity but lack of proper communication and lack of time to learn the skills in the skills lab. The study also revealed that some nurses operate equipment without explaining, some places have all the equipment to do the skills but some do not and the students are allowed to undertake some skills, to consult and take part. Also there are adequate opportunities where one observes several procedures and there is encouragement to be independent.

"Good opportunities to learn and good learning environment as well" (FGD 1 participant 1).

"Lack of proper communication in the unit that we ought to meet our objectives whereby one feels we should only work in the wards".... (FGD 1, participant 2).

"It depends with whom you are allocated with, some are willing to guide you through a certain procedure and others not and still do not answer your questions"... (FGD 1, participant 3).

"Opportunities are there but in some wards the in charges do not take upon themselves to help us learn but we are there to work'...... (FGD 1, participant 8).

"Some nurse will operate equipment without explaining......if you ask they answer in monosyllabus....yes or no'....... (FGD 1, participant 7).

"Depends on an individual if willing to learn'... I can say it is a personal initiative" (FGD 1, participant 6).

"Some places have all the equipments to do the skills but some do not so you improvise"... (FGD 1, participant 5).

"We are allowed to undertake some skills, we are allowed to consult and take part" (FGD 1, participant 8).

"Adequate opportunities where one observes several procedures and there is encouragement to be independent"... (FGD 1, participant 4).

"We have opportunities to be involved in ward activities but because of time that is not enough we think about assessment"...we also want access to learn difficult procedures"(FGD 2, participant 6; FGD 2, participant 2)

"I have the opportunity to learn...we have the urge for clinical practice but have the fear that holds you back due to the fact that you are sure you do not have the skills to undertake it... I suggest before we go the wards we rehearse on the procedure first and perfect...maybe because of the approach of the staff that is negative they may judge you wrongly for not knowing how to perform a procedure or even fear of the

risk that you would injure a patient when performing a procedure that you are not confident about" (FGD 2, participant 3).

"Some wards involve us through doing case studies and coming to discuss with them as staff".... (FGD 2, participant 4).

4.9 Clinical practice experience

The descriptive analysis of clinical practice experience is shown in table 4.7 using 7 statements. The results are presented in frequencies and percentages according to the responses of strongly disagree, disagree, not sure, agree and strongly agree. About half of the respondents (53.4%, n=70) agreed that they had the theoretical knowledge on the current nursing practice placement followed by 37.4% (n=49) who were strongly agree on the statement. Majority (60.3%, n=79), (58.0%, n=76) and (68.7%, n=90) of the participants agreed on the statements stated having knowledge and ability to provide nursing services in the area am placed in, the clinical area provides me with adequate practice opportunity and having the opportunities to be involved in ward/placement activities respectively. Though about half (48.1%, n=63) and (40.5%, n=53) agreed preceptors' demonstration on clinical skills and supervisors observation on frequent student performance respectively, considerable percentage (35.1%, n=46) and (44.2%, n=58) disagreed on the same statements respectively.

Table 4.7; Clinical practice experience

Statement	Strongly Disagree, n(%)	Disagree, n(%)	Not sure, n(%)	Agree, n(%)	Strongly Agree, n(%)
I have the theoretical knowledge for my current nursing practice placement	2(1.5%)	3(2.3%)	7(5.3%)	70(53.4%)	49(37.4%)
I have knowledge and ability to provide nursing services in the area am placed in	2(1.5%)	4(3.1%)	5(3.8%)	79(60.3%)	41(31.3%)
The clinical area provides me with adequate practice opportunity	5(3.8%)	13(9.9%)	11(8.4%)	76(58.0%)	26(19.8%)
My preceptor demonstrates clinical skill in the wards	18(13.7%)	28(21.4%)	15(11.5%)	63(48.1%)	7(5.3%)
The supervisors observes student performance frequently	21(16.0%)	37(28.2%)	9(6.9%)	53(40.5%)	11(8.4%)
I have the opportunities to be involved in ward/placement activities	-	6(4.6%)	8(6.1%)	90(68.7%)	27(20.6%)
I have knowledge concerning medicines and administering them	2(1.5%)	1(0.8%)	7(5.3%)	74(56.5%)	47(35.9%)

4.9.1 Overall score assessment for clinical practice experience

The overall score of clinical practice experience among the participants was assessed using the seven (7) statements presented in Table 4.7. The score 1 represented the option "strongly disagree" while score 5 on the scale represented the category "strongly agree". The overall score was generated by aggregating the scores. The maximum attainable total score was 35. A percentage score was generated and classified as In-adequate ($<70\%$) and Adequate ($\geq 70\%$). About three quarter (74.0%, n=97) had scored a positive or adequate clinical practice experience whole the remaining 26.0% (n=34) in-adequate clinical practice experience practice (Figure 4.7).
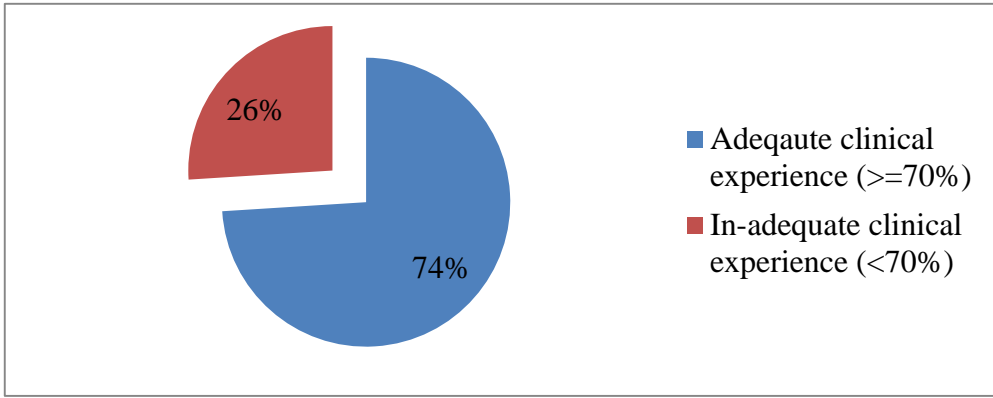
Figure 4.7: Overall score for clinical practice experience

4.10: Relationship between clinical experience and socio-demographic characteristics

Table 4.8 shows the relationship between socio-demographic characteristics and clinical practice experience among the students.

However, there was no statistically significant observation at (P>0.05) between the clinical practice experience and the socio-demographic characteristics.

Table 4.8: Relationship between clinical experience and socio-demographic characteristics

Socio-demographic attributes	Clinical experience		OR	95%CI		Chi-square
	Adequate, n(%)	In-adequate, n(%)		Lower	upper	P value
Age in years						
19-21	29(70.7%)	12(29.3%)	1.07	0.28	4.17	0.918
22-24	59(76.6%)	18(23.4%)	1.46	0.40	5.30	0.568
25-28	9(69.2%)	4(30.8%)	1.00			
Sex						
Male	46(78.0%)	13(22.0%)	1.46	0.66	3.24	0.356
Female	51(70.0%)	21(29.2%)	1.00			
Marital status						
Single	93(75.6%)	30(24.4%)	3.10	0.73	13.16	0.109
Married	4(50%)	4(50%)	1.00			
Year of study						
2nd year	28(73.7%)	10(26.3%)	0.57	0.21	1.58	0.283
3rd year	25(62.5%)	15(37.5%)	0.48	0.34	1.18	0.080
4th year	44(83.0%)	9(17.0%)	1.00			
Number of clinical placements attended previously						
1 to 2	22(68.8%)	10(31.2%)	0.57	0.23	1.42	0.225
3 to 4	9(56.2%)	7(43.8%)	0.33	0.11	1.02	0.054
>5	66(79.5%)	17(20.5%)	1.00			

4.11 Association of the overall score for clinical practice experience with overall score of theoretical preparation, environment, supervision, feedback and opportunities for clinical learning

An analysis of the relationship between the overall score of theoretical preparation, environment, supervision, feedback and opportunities for clinical learning and overall score for clinical practice experience is presented in Table 4.9.

The proportion of respondents with adequate clinical experience was more among those who had high overall score of clinical learning environment (89.4%, n=42)[OR=10.27; 95%CI=2.86-36.89; P=0.000]and those who scored moderate (71.9%, n=46)[OR=3.12; 95%CI=1.11-8.80; P=0.031]compared to those who scored low (45.0%, n=9). Similarly,

respondents with adequate clinical experience were significantly more among those who had shown high score on clinical feedback (88.7%, n=47)[OR=13.71; 95%CI=4.07-46.21; P=0.000]and moderate score (75.0%, n=42) [OR=5.25; 95%CI=1.82-15.13; P=0.002]compared to those who had scored low (36.4%, n=8).

Respondents who have shown adequate clinical experience was more among those who scored high on theoretical preparation (86.6%, n=84)[OR=9.94; 95%CI=4.00-24.71; P=0.000]compared to those who scored for clinical learning had significantly high clinical experience(80.2%, n=77) [OR=2.84; 95%CI=1.22-6.62; P=0.014]than to those who scored moderate on opportunities for clinical learning(58.8%, n=20).

Students with adequate clinical experience were also more among those who had high overall score for clinical supervision (36.4%, n=54)[OR=25.38; 95%CI=5.16-124.73; P=0.000]than to those who scored low (36.4%, n=4).

Table 4.9: Association of the overall score for clinical practice experience with overall score of theoretical preparation, environment, supervision, feedback and opportunities for clinical learning

Variables	Clinical experience		OR	95%CI		Chi-square
	Adequate, n(%)	In-adequate, n(%)		Lower	upper	P value
Overall score for theoretical preparation						
High (>75%)	84(86.6%)	13(13.4%)	**9.94**	**4.00**	**24.71**	**0.000**
Moderate (51%-75%)	13(39.4%)	20(60.6%)	1.00			
Overall score of clinical learning environment						
High (>75%)	42(89.4%)	5(10.6%)	**10.27**	**2.86**	**36.89**	**0.000**
Moderate (51%-75%)	46(71.9%)	18(28.1%)	**3.12**	**1.11**	**8.80**	**0.031**
Low (< = 50%)	9(45.0%)	11(55.0%)	1.00			
Overall score for clinical supervision						
High (>75%)	58(93.5%)	4(6.5%)	**25.38**	**5.16**	**124.73**	**0.000**
Moderate (51%-75%)	35(60.3%)	23(39.7%)	2.66	0.70	10.13	0.151
Low (< = 50%)	4(36.4%)	7(63.6%)	1.00			
Overall score for clinical feedback						
High (>75%)	47(88.7%)	6(11.3%)	**13.71**	**4.07**	**46.21**	**0.000**
Moderate (51%-75%)	42(75.0%)	14(25.0%)	**5.25**	**1.82**	**15.13**	**0.002**
Low (< = 50%)	8(36.4%)	14(63.6%)	1.00			
Overall score of opportunities for clinical learning						
High (>75%)	77(80.2%)	19(19.8%)	**2.84**	**1.22**	**6.62**	**0.014**
Moderate (51%-75%)	20(58.8%)	14(41.2%)	1.00			

4.12 Correlation of mean score for clinical practice experience, theoretical preparation, environment, supervision, feedback and opportunities for clinical learning

A Pearson correlation analysis was done to determine the relationship between clinical practice experience, theoretical preparation, environment, supervision, feedback and opportunities for clinical learning. This is presented in the form of a correlation matrix in table 4.10. To run for correlation, first mean was calculated for each component as the option "strongly disagree" represented score 1 while "strongly agree" represented score 5 on the likert scale for positively worded and the other way round for negatively worded statements. Then the mean score was generated by dividing the aggregated sum and then by the number

of items. The results indicate that clinical practice experience is positively correlated with theoretical preparation (r = 0.646, p=0.000), clinical learning environment (r = 0.583, p=0.000), clinical supervision(r = 0.644, p=0.000), clinical feedback (r = 0.639, p=0.000) and opportunities for clinical learning (r = 0.496, p=0.000).

Table 4.10: Correlation of mean score for clinical practice experience, theoretical preparation, environment, supervision, feedback and opportunities for clinical learning

		Mean score on clinical experience	Mean score on theoretical preparation	Mean score on clinical learning environment	Mean score on clinical supervision	Mean score on clinical feedback	Mean score on opportunities for clinical learning
Mean score on clinical experience	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	131					
Mean score on theoretical preparation	Pearson Correlation	.646**	1				
	Sig. (2-tailed)	.000					
	N	131	131				
Mean score on clinical learning environment	Pearson Correlation	.583**	.436**	1			
	Sig. (2-tailed)	.000	.000				
	N	131	131	131			
Mean score on clinical supervision	Pearson Correlation	.644**	.338**	.400**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	131	131	131	131		
Mean score on clinical feedback	Pearson Correlation	.639**	.444**	.484**	.571**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	131	131	131	131	131	
Mean score on opportunities for clinical learning	Pearson Correlation	.496**	.643**	.396**	.264**	.295**	1
	Sig. (2-tailed)	.000	.000	.000	.002	.001	
	N	131	131	131	131	131	131
**. Correlation is significant at the 0.01 level (2-tailed).							

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.1 Introduction

This chapter discusses the results of the study from quantitative and qualitative data based on the research findings.It sought to evaluate the clinical learning experiences among undergraduate nursing students at the University Of Nairobi School Of Nursing in relation to the clinical learning environment, task involvement, participation and opportunities, feedback, clinical supervision and support.

5.2 Clinical experience

According to this study, about 74% of the respondents had scored adequate clinical practice experience, and 26% scored inadequate clinical practice experience. This means that students had adequate theoretical knowledge for current clinical practice, there were opportunities for practice and knowledge and ability to provide nursing services that enhanced adequate nursing experience hence creating a competent student. Students were therefore satisfied with the clinical practice experience. This is in line with a study done by Ekebergh (2011) that says clinical practice is an important component of nursing education. Clinical practice prepares nurses to become competent practitioners and reduces theory practice gap. Nevertheless the 26% respondents who were not satisfied with the clinical learning experiences in a focus group discussion expressed concerns on the clinical learning environment. There were no preceptors to demonstrate procedures and supervision and feedback was rare. This study is similar to one done by Sharif and Masoumi (2005) in Iran which showed that nursing students were not satisfied with clinical component of education.

5.3 Theoretical knowledge preparations

Most of the students agreed and strongly agreed that they got the necessary knowledge and skills from the skills laboratory to provide nursing care in the clinical area. Similarly, most of the respondents had scored high level of theoretical knowledge preparation. A Pearson correlation analysis indicated that theoretical preparation positively correlated with clinical practice experiences ($r = 0.646$, $p=0.000$).

Half of the respondents agreed that they had the skills needed to utilize the equipment to do their job. They also agreed that they had knowledge of anatomy and physiology and the normal structure and functions of the human body, knowledge of the medical and nursing terminology used in communicating, reporting and documenting in the clinical area and that

they had knowledge of a variety of nursing procedures, knowledge/ability to assess patients and knowledge of nursing process respectively.

The focus group discussions revealed that most of the participants indicated that the theoretical knowledge preparation in the class were sufficient. However, they reported that there is no conducive environment or ground to apply the theories in the clinical areas. This is supported in a study carried out by Evans and Keely (2004) well as Sharif and Masoumi's (2005) which concluded that conflicting practices between the nursing taught in the classroom and that of clinical setting results in students being left in confusion, stressed and anxious, which may indicate that students are not effectively learning to prepare for work they do after qualifying.

With regards to skills laboratory learning, most of the students agreed that they got the necessary knowledge and skills from the skills laboratory to provide nursing care in the clinical area and also agreed that they had the necessary knowledge to do their placement. This was in agreement with a study conducted by Croxon and Maggini's (2009) which reported that there is need for clinical laboratories and theory as well as clinical placements and the hands on experience this medium provides in the preparation of the nursing students for the reality of clinical setting. Learning takes place when what the students have practiced in the skills laboratory is translated in the reality of nursing in the clinical setting.

Students in the focus group discussion felt that they had knowledge and skills of a variety of nursing procedures, knowledge/ability to assess patients and knowledge of nursing process respectively. They also felt that they had knowledge of anatomy and physiology and the normal structure and functions of the human body and knowledge of the medical and nursing terminology used in communicating, reporting and documenting in the clinical area. This was consistent with Orristein and Huskins (2009) opinion that indicated content was crucial for theoretical learning before the students can carry out clinical placement.

5.4 Clinical learning environment

Clinical practice prepares the nursing students to become competent practitioners. The findings of this study showed that half of the students agreed that the clinical environment encourages participation.

In terms of congruence with class teaching, the respondents felt that there was congruence between the things learnt in class and the practice in the ward. Integration of both theory and practice in relevant ways for the students is necessary for their overall clinical learning experience. This finding is similar to Gordons (2009) who indicated that teachers should promote experiences that require the students' participation for their learning.

However about half of the respondents agreed (N=28) that nurses in the ward are good role models while half (N= 29) disagreed that nurses in the ward are good role models. About (41.2%) N=54 agreed that the nursing staff in the ward always demonstrates procedures but about (30.5%) N=40 did not agree with this. This finding is supported by Landmark et al (2003) and Corlett et al (2003) who say that implementation of theory and practice is more effective if there is role modeling available to the students

In the focus group discussions, analysis of the qualitative data on the clinical learning environment showed that there is a lot of improvisation without prior due preparation, resources were not adequate during their clinical placement, adequate resources at ward level are necessary as they maximize exploitation of all learning opportunities and help students obtain adequate clinical experience leading to competent nurses eventually., less time allocated in the placement, too much workload and too many students in certain wards. However, some participants have admitted that it is the personal initiatives that enhance learning in the clinical environment.

It was also reported that some wards have nurses who are good role models while others have nurses who have a bad attitude towards the students so are not ready to assist them to learn. Learning in the clinical environment should be effectively facilitated in order to adequately prepare the nursing student for practice after qualifying. As noted by Cheraghi et al (2012), unfriendly staff with bad attitudes denies students enough opportunities to learn. This has been supported by piaget that learning arises as a product of the interaction between the person and his/her environment.

5.5 Clinical Supervision/Feedback

The findings showed that supervision and feedback were necessary for adequate clinical learning experience as indicated by Pearson correlation analysis supervision(r=0.644,p=0.000) and feedback(r=0.639,p=0.000). This result is similar to that by Papastravou et al (2010) and Saarikoski et al (2007) which indicated that clinical

supervision of nursing students is necessary in facilitating learning in the clinical setting. Nevertheless the study also showed that (45%) N= 59 preceptors listen to the students concern while (20.6%) N= 27 disagreed. Also (35%) N=46 respondents said the preceptors observe student performance while (24.4%) N=32 disagreed. While clinical supervision is necessary in facilitating learning in clinical setting, preceptors remain a challenge since they are either not enough to supervise students or are not there at all. This was indicated in the focus group discussion that not all wards had clinical instructors and those that were there did not come from school. Moreover there is also no harmony between the lecturer and clinical instructor. There is therefore a need for training and support of the preceptors as reported by (Lee 1997).

The study also found out that expectations were communicated to the students by their teachers but were not clearly communicated to the nurses at the wards. The respondents indicated that supervision is done during clinical assessment only. This was as seen by Sharif and Masoumi (2005) in their study where students felt that their nurse educators took more roles of evaluation than supervision.

In this study, (58%) N=76 agreed that there was feedback while (38.9%) N=51 of the students disagreed. This means that average number of students felt there was no feedback in their clinical practice. This however leads to low morale and demotivation of students. This is supported by a study done by Elcigil and Sari (2008) where students express concern that there was no feedback and ended up feeling demotivated.

Most of the students agreed that they were working with supportive classmates. This is comparable to a study done by Bourgeois et al (2011) that showed students support each other, discuss about their practices, share knowledge skills and experiences thus being socialized in the nursing profession.

5.6 Opportunities for clinical learning

Majority (66.4%) N = 87 of the students agreed that they had opportunities to be involved in ward/placement activities while (7.6%) N=10 disagreed. Examples of the activities include assessing vital signs, developing nursing care plans, and administering medication. The students agreed that they were able to effectively manage the workload expected of them and collect information on the client's health status using different techniques. The study also in a

focus group discussion revealed that some nurses operate equipment without explaining, some places have all the equipment to do the skills but some do not. Students are allowed to undertake some skills, to consult and take part. Also there are adequate opportunities where one observes several procedures and there is encouragement to be independent. Therefore this means students are given opportunities to practice different tasks translating theory into practice. This is comparable to a study by Lofmark and wikblad (2001) that reported that students have to be given opportunities to practice different tasks to gain confidence, become perfect and learn from the mistakes they make. According to Kolb most students are not vigorously socialized into the classroom and textbook way of learning, therefore field placement helps to capitalize on their practical abilities while applying ideas learned from classroom.

The results indicate that clinical practice experiences positively correlated with opportunities for clinical learning (r = 0.496, p=0.000). These results agree with those of Chuan and Barnett (2012) whose students reported a variety of learning opportunities which facilitated their learning. The findings further agree with Ranse (2009) that reported that task participation and eventual accomplishment facilitates the students' learning than just applying theory into practice.

5.7 Limitations

The study was an investigation about students perception, nurse educators perception was not looked into however the findings were important in guiding nursing curriculum.

5.8 Conclusion

There was inadequate clinical supervision and feedback. Clinical supervision was mainly done by senior professional nurses in the ward as compared to nurse preceptors. Senior professional nurses might sometime not be able to guide and support student nurses as required because they are entrusted with patient care as their priority.

Overpopulation of student nurses in the clinical areas hence competition for clinical opportunities and affects students' adequate clinical learning experience achievement.

Negative attitude of ward staff affects the clinical learning experience as the students are unable to gain adequate clinical experience since more time is spend with professional nurses than nurse educators. Teaching is an indispensable role of every professional practitioner.

Conducive clinical learning environment, clinical supervision/feedback and opportunities for clinical learning enhance adequate clinical experience. Adequate clinical learning experience is important in supporting nursing as a professional practice and also empowering students who therefore become competent nurses ensuring safe, quality nursing in the health care system.

5.9 Recommendations

5.9.1 Recommendations for this study

1. There is need for training and supporting preceptors' in the clinical area to enhance clinical learning experiences of students to create competent nurse practitioner.
2. There is need for supervision/feedback and joint responsibility in the clinical settings to facilitate personal and professional growth.
3. Partnering of nurse educators with the clinical environment should be encouraged to identify the changing trends in health care and factor their teaching to meet the needs of the clinical environment.
4. There is need for laboratory skills, mandatory prior clinical placement. This will assist students to develop nursing skills and confidence becoming more certain of their role.
5. Nurse educators, clinical preceptors and professional nurses should plan together processes and strategies used for student assessment so that staff responsible for student education and training is familiar with the whole evaluation process.
6. Review of the clinical placement should be ongoing in order to establish whether the clinical opportunities are still adequate for the number of student nurses placed in those facilities.

5.9.2 Recommendation for further research

A study on nurse educators perception about nursing students clinical experiences should be done.

5.10 Dissemination Plan

The findings of this study will be disseminated to the following:

- Chairman of the Joint Kenyatta National Hospital and Research Committee.

- Permanent Secretary – Ministry of Education, Science research and Technology.

- Ministry of Health - Director of Medical services (DMS).

- The Director, School of Nursing Sciences (SONS).

- Nursing Conferences, Seminars and Workshops.

- Publishing Research Findings in Nursing Journals.

- Findings generated by this study may be relevant to universities and colleges with Nursing Faculty.

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Appendix I: Informed Consent Form

Study title: To evaluate the clinical learning experiences of undergraduate student nurses at the University of Nairobi

Investigator: Stella Mburu

Information sheet : I am a Master's student in the School of nursing at the University of Nairobi.

Purpose of the study: The research aims at recruiting participants who are undergraduate nursing students of the University of Nairobi.

Voluntary participation: Participation in this study is totally voluntary and hence only consenting participants are recruited into the study. Consenting to participate in this study means the participant has clearly understood about this study and has willingly decided to participate in it and therefore allowing the investigator to collect information from the participant.

What the study involves: Participation in the study will require the completion of a questionnaire which will take about ten to fifteen minutes of your time. No names will be required on the questionnaire. A code will be given to the questionnaire to maintain anonymity and confidentiality.

Risks and how they will be mitigated: There are no perceived risks for participation. You are free to decline or withdraw from the study at any time as deemed necessary. Your refusal to participate will not attract any penalty. You retain the right to withdraw without risking any consequences from anyone. Participation or non-participation does not come with any financial costs. Equally, no compensation will be provided for participation in this study.

Benefits: You will benefit by participation and contributing to the nursing body of knowledge. The evidence based information collected will be used to inform future teaching of nursing.

Protection of information and maintenance of confidentiality: No names will be required on the questionnaire. A code will be given to the questionnaire to maintain anonymity and confidentiality. The information you provide is confidential. Only the researcher will have access to the information. No direct reference will be made to you during presentation and in publications. The information you provide can in no way be traced back to you.

Communication of the results: After the data collection and analysis, findings and recommendations will be published and will be made available to the administration offices of the school of nursing sciences which will then make them available to the students.

Refusal to participate or withdraw from the study: You are free to decline or withdraw from the study at any time as deemed necessary. Your refusal to participate will not attract any penalty. You retain the right to withdraw without risking any consequences from anyone. Participation or non-participation does not come with any financial costs. Equally, no compensation will be provided for participation in this study.

Study approval: The study has been approved by the management of the school of nursing sciences. You are free to ask questions and seek clarifications about the study now and at any other time. For any concerns or questions about this study please contact Stella Mburu on phone number 0722241159, or email address wanjikusm@yahoo.com. Alternatively, for any questions pertaining to your right as a participant, you can also contact. The secretary, KNH/UON Ethics and Research Committee, P.O. Box 20723-00202, Nairobi, Telephone number 020-726300-9

Informed consent: I state that I have read and understood the information stated above, that I am over 18 years and I wish to participate in a research being conducted by Stella Mburu of Nairobi university school of nursing sciences. I understand that I am free to ask any questions or withdraw from participating in the research study at any time without penalty or prejudice I willingly accept to participate in this study having been given adequate information about it and an opportunity to seek clarification

Participants Signature……...................Date……................

Researcher/Research   assistant

Name………………….Signature……………..Date.............

Appendix II: Questionnaire

QUESTIONNAIRE S/NO...........................DATE ………………...

Hello, my name is Stella Mburu, a Master's student in the School of nursing at the University of Nairobi. I am carrying out a study among the university's undergraduate nursing students to find out their clinical learning experiences. The information you give will be treated with the utmost confidentiality.

In order to conduct this study, the questionnaire below has been developed as the main instrument of data collection. It is my humble request that in order to achieve accurate data, you answer the questions honestly and to the best of your ability. Do not write your name on any part of the questionnaire. After completing the questionnaire, please hand it to the researcher/research assistant. Thank you for your cooperation and participation

SECTION A

DEMOGRAPHIC CHARACTERISTICS

1 Age (in years) ☐

2 Gender   M ☐   F ☐

3. Marital status   Single ☐   Married ☐   Divorced ☐   Widowed ☐

4. Year of study 2nd ☐ 3rd ☐ 4th ☐

5. No of clinical placements attended previously   ☐   ☐ -2   ☐   3-4 ☐
>5

SECTION B

Theoretical knowledge preparation

	1. Strongly disagree	2. Disagree	3. Not sure	4. Agree	5. Strongly agree
I have got the necessary knowledge and skills from the skills laboratory to provide nursing care in the clinical area					
I have the necessary skills to do my placement					
I have the skills needed to utilize the equipment to do my job					
I have knowledge of anatomy and physiology, and the normal structure and functions of the human body.					
I have the theoretical knowledge for my current nursing practice placement.					
I have knowledge of the medical and nursing terminology used in communicating, reporting and documenting in the clinical area.					
I have knowledge of the nursing process-assessment, planning, caring, and evaluation.					
I know how and where to find evidence to support the provision of safe, competent, and ethical nursing care.					
I have knowledge of a variety of nursing procedures.					
I have the knowledge and ability to provide nursing services in the area am placed in.					
I have the knowledge and ability to assess patients					

Clinical learning environment

	1. Strongly disagree	2. Disagree	3. Not sure	4. agree	5. Strongly agree
The clinical area provides me with adequate practice opportunity					
I have access to the necessary equipment for my work in the clinical area.					
This is congruence between the things learnt in class and the practice in the ward					
The nurses in the ward are good role model					
The nursing staff in the ward always demonstrates procedures					
The clinical area environment I am in encourages participation					
The nursing staff in the ward are friendly					

Clinical Supervisions

	1. Strongly disagree	2. Disagree	3. Not sure	4. Agree	5. Strongly agree
My preceptor demonstrates clinical skill in the wards					
My preceptor listens to my concerns					
I am working with supportive classmates					
My preceptor is open and honest with me					
Preceptor observes student performance frequently					
Our teachers communicates expectations of students					

Feedback

	1. Strongly disagree	2. Disagree	3. Not sure	4. Agree	5. Strongly agree
My supervisor provides me with regular feedback.					
My supervisor recognizes and appreciates my work					
I have received a meaningful performance progress					
The supervisors observes student performance frequently					
My supervisor corrects mistakes without belittling me					
My supervisor/s provides support and encouragement					

Opportunities for clinical learning

	1. Strongly disagree	2. Disagree	3. Not sure	4. Agree	5. Strongly agree
I have the opportunities to be involved in ward/placement activities					
I use appropriate assessment tools and techniques in assessing clients.					
I am able to effectively manage the workload expected of me.					
I have the skills needed to utilize the technology/equipment to do my job					
I collect information on the client's health status using interviewing, history taking, and interpretation of laboratory data.					
I assess the client's vital signs, e.g., temperature, pulse, blood pressure, etc.					
I analyze and interpret data obtained in the client assessments to make a nursing diagnosis.					
I develop care plans with other health team members to ensure continuity of care.					
I know when consultation is required with other nursing team members on patients health					
I know the common medical disorders in the ward am placed in.					
I have the knowledge concerning medicines and administering them					
I am allowed to administer medicines in the ward					
I have been denied opportunities to be involved in ward procedures					

Appendix III: Time Frame (Work Plan)

Duration in weeks/Activity	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEP	OCT	NOV
Proposal writing and approval	X	X	X						
Funds mobilization		X	X						
Data collection				X	X	X			
Data management and analysis						X	X		
Report writing, presentation and submission of research findings							X	X	X

Appendix III: Budget

ITEM	UNIT COST	QUANTITY	COST	TOTAL COST
HUMAN RESOURCE				
Training of research assistants				
Research assistants allowance(2)	500	2x2x500	2,000	
Principal researcher(1)	1,000	2x1x1,000	2,000	
(a)Pre-testing of questionnaire				
Research assistants(2)	500	2x2x500	2,000	
Principal researcher(1)	1,000	2x1x1,000	2,000	
(a)Data collection				
Research assistants(2)	500	2x5x6x500	30,000	
Principal researcher(1)	1,000	1x5x6x1,000	30,000	
Sub-total				68,000
MATERIALS AND SUPPLIES				
Biro pens(1 dozen)	500	500x1	500	
Pencils(1 dozen)	60	60x1	60	
Erasers(3)	10	10x3	30	
Folders(3)	100	100x3	300	
Field books(3)	65	65x3	195	
Stapler and staples	600	600	600	
Sub-total				1,685
PROPOSAL AND THESIS				
Proposal typing and printing (50 pages)	35	50x35x2	3500	
Photocopying final report (5 copies)	300	300 x5	1500	
Sub-total				5000
TOTAL(KSHS)				**74,685**

Appendix IV: Authority Letter to carry out research work

UNIVERSITY OF NAIROBI
COLLEGE OF HEALTH SCIENCES
P O BOX 19676 Code 00202
Telegrams: varsity
(254-020) 2726300 Ext 44355

KNH/UON-ERC
Email: uonknh_erc@uonbi.ac.ke
Website: http://erc.uonbi.ac.ke
Facebook: https://www.facebook.com/uonknh.erc
Twitter: @UONKNH_ERC https://twitter.com/UONKNH_ERC

KENYATTA NATIONAL HOSPITAL
P O BOX 20723 Code 00202
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP, Nairobi

Ref: KNH-ERC/A/298

7th July 2015

Stella Wanjiku Mburu
H5669299/2013
School of Nursing Sciences
University of Nairobi

Dear Stella

Research proposal – To evaluate the clinical learning experiences among undergraduate nursing students at the University of Nairobi School of Nursing (P196/04/2015)

This is to inform you that the KNH/UoN-Ethics & Research Committee (KNH/UoN-ERC) has reviewed and **approved** your above proposal. The approval periods are 7th July 2015 6th July 2016.

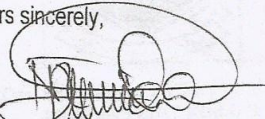This approval is subject to compliance with the following requirements:

a) Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b) All changes (amendments, deviations, violations etc) are submitted for review and approval by KNH/UoN ERC before implementation.
c) Death and life threatening problems and serious adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH/UoN ERC within 72 hours of notification.
d) Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH/UoN ERC within 72 hours.
e) Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
f) Clearance for export of biological specimens must be obtained from KNH/UoN-Ethics & Research Committee for each batch of shipment.
g) Submission of an *executive summary* report within 90 days upon completion of the study
This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/or plagiarism.

For more details consult the KNH/UoN ERC website **www.erc.uonbi.ac.ke**

Protect to discover

07 JUL 2015

Yours sincerely,

PROF. M. L. CHINDIA
SECRETARY, KNH/UON-ERC

c.c.   The Principal, College of Health Sciences, UoN
        The Deputy Director CS, KNH
        The Chair, KNH/UoN-ERC
        The Assistant Director, Health Information, KNH
        The Director, School of Nursing Sciences, UoN
        Supervisors: Prof. Anna K. Karani, Dr. Waithira Mirie