THE IMPACT OF CLINICAL NURSE INSTRUCTOR'S PRACTICES ON CLINICAL PERFORMANCE AMONG BACHELOR OF SCIENCE IN NURSING STUDENTS IN KENYA

JULIAN NTHULE KAVILI

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DECLARATION

DECLARATION

I declare that this research thesis is my original work and has not been presented for a degree to any other University.

Signature: _____ Date 16/10/20

Julian Nthule Kavili

Approved by Supervisors

This thesis report has been carried out by the candidate and submitted for examination with our approval as the university Supervisors.

Signature: _____ Date 30.10.2020

Dr Agnes K. Mutinda (Ph.D)

Department of Nursing

Kenya Methodist University

Signature: _____ Date 19/10/20

Dr Winfred K. Kithinji (Ph.D)

Department of Education

Kenya Methodist University

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DEDICATION

I dedicate my research work to my Mother, Monica, my brothers and sisters who have been a source of encouragement to me. God bless them.

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I thank the Almighty God for enabling me to complete my research work. Special thanks to my supervisors at Kenya Methodist University, Dr Agnes Kasusu Mutinda and Dr Winifred Kithinji. Special thanks to my Religious Sisters (Little Sisters of St Francis-Kasarani) for enabling me to do this program of Masters of Science in Nursing Education. I am sincerely grateful to all my lecturers at Kenya Methodist University (KeMU) Nursing department. I cannot forget the support of my classmates at KeMU who were a source of support and encouragement in my research work.

ABSTRACT

Clinical teaching is a major component of nursing education. The training of Bachelor of Science Nursing (BScN) students entails clinical nurse instructors to help students translate theoretical knowledge into clinical skills and attitudes needed in the nursing profession. Over the decades employers have raised concerns about BScN nurses lacking adequate clinical skills and behavioral abilities required for safe patient care. In Kenya, there has been increasing concerns about BScN students graduating from universities not ready for clinical practice raising questions on the quality of clinical instruction. The purpose of this study was to examine the influence of clinical nurse instructor practices on clinical performance among BScN students in Kenya. The study was conducted in Kenyan universities between June and July 2019. It employed descriptive cross -sectional survey design and the target population were third year BScN (direct entry) students and clinical nurse instructors from public, private and faith- based universities in Kenya. A sample of five Universities was selected using stratified random sampling technique. Respondents were selected using simple random sampling. The study sample was 170 respondents comprising 160 third- year BScN students (direct Entry) and 10 clinical nurse instructors. Data were collected using self- administered questionnaire and interview guide. Questionnaire was pretested and interview guide reviewed by two experts. BScN students filled the questionnaire and clinical instructors were interviewed. Qualitative data was organized into themes then analyzed using content data analysis. Quantitative data were analyzed through descriptive statistics using the statistical Package for Social Sciences (SPSS)version 24 for windows. Data presented in tables, graphs and charts. Chi- square test, multiple regression and correlation test analyses were used to test association between independent and dependent variables at (95%) confidence level with significant level of 0.05. Findings revealed performance between gender was not of statistical significance (P= 0.252). Findings showed demonstration strategy was the most preferred clinical teaching strategy in Kenyan universities with 95% response rate. Clinical assessment strategies 131(84%) students and 4(40%) Instructors showed measured competencies (KAP) while Procedure manual and student training file required review (60%). Chi-square test findings revealed problem-based teaching statistically significantly influenced student clinical assessment scores (p=0.003). Findings showed students who had no opportunity to practice problem solving techniques had higher clinical assessment scores than those who did and this was statistically significant (χ^2=8.618, df=1, P=0.003). Multiple regression analysis revealed Clinical Conferencing (p=0.001), Institution (p=0.007) and Clinical portfolios (p=0.030) statistically significantly predicted student clinical assessment scores. Correlation analysis showed positive relationship between independent and dependent variables, F (11, 146) =4.261, p<0.001. These accounted for 24.1% variability in the clinical assessment scores. Clinical, assessment strategies and role modeling contributed to performance scores positively but not statistically significantly p = 0.517, p=0.345) respectively. The study recommends all universities in Kenya teaching BScN students to adopt problem-based strategy, clinical conferencing and clinical portfolio teaching strategies for good results. The study recommends review of procedure manual and student training file by nursing education regulatory body. The study recommends further studies on student factors influencing clinical performance and clinical instructors' competence.

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ABBREVIATIONS AND ACRONYMS

BScN	Bachelor of Science in Nursing
BScN (D.E)	BScN Direct Entry students
CUEA	Catholic University of Eastern Africa
JKUAT	Jomo Kenyatta University of Agriculture and Technology
KeMU	Kenya Methodist University
KMTC	Kenya Medical Training Center
KAP	Knowledge, Attitude and Practical skills
KCSE	Kenya Certificate of Secondary Education
MOH	Ministry Of Health
NACOSTI	National Council of Science, Technology and Innovation
NCK	Nursing Council of Kenya.
OSCE	Objective Structured Clinical Education
VIF	Variation Inflation Factor

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The study sought to assess the influence of clinical nurse instructor practices in clinical performance among Bachelor of Science in Nursing (BScN) students in Kenya. This chapter covers the background of the study, statement of the problem, purpose of the study, objectives, research questions, Justification of the study, limitations, and delimitations of the study, assumptions and operational definition of terms.

1.1 Background of the study

Globally nursing is recognized as a practice- based profession and effective clinical instruction is a major component of nursing education (Ewertsson et al., 2017). Clinical nurse instructors are charged with the task of helping nursing students to transfer classroom knowledge into the clinical setting. They play an important role in preparing nursing students into becoming competent nurses in any country. Studies have shown clinical nursing instructors as people who combine interpersonal skills, professional skill, personality traits and teaching abilities in order to produce competent and caring nurses (Niederriter et al., 2017).

Nurses and midwives are the backbone of the health care sectors in every country and competence is a key factor in the training of nursing students. They are instrumental in health promotion and disease prevention (World Health Organization [WHO], 2020). Nursing Council of Kenya (NCK) is mandated to prepare nursing workforce in Kenya. The training of Nurses in Kenya is done at different levels. These levels are certificate, diploma, Bachelor of Science in Nursing (BScN), Master's and doctorate levels (Nursing Council of Kenya [NCK], 2012). BScN training is subdivided in to two levels; Direct

Entry (D.E) and BScN upgrade. Direct Entry students join University after Kenya Certificate of Secondary Education (KCSE) and minimum entry grade is C+ by NCK. This study focused on BScN students (DE). NCK recommends BScN (D.E) students to train for four years, with two years in clinical placements according to Kenya education guide (2019). The purpose of BScN training in Kenya was to prepare knowledgeable nurses to provide leadership in nursing practice, nursing education, administration and research according to NCK (2012).

Studies done globally, regionally and locally have shown emerging gap in BScN - D.E clinical training. Concerns raised touch on the level of competence of newly graduated BScN- D.E nurses regarding translation of classroom knowledge into clinical practice (Hezaveh et al., 2013). Studies done locally have also identified gaps in clinical supervision of nursing students and lack of reflective skills (Nyangena et al, 2011). This study focused on nurse instructor practices and how they influenced BScN students' clinical performance.

A study carried out in United States of America (USA) by Glynn, (2014) on nursing needs assessment, acknowledged a gap between theory and practice due to underused core competencies, circumscribed clinical experiences, skills acquirement, faculty shortages and disparity in the preparation of clinical nurse instructors. Glynn (2014) further noted many nursing colleges in the USA, were using adjunct clinical nurse instructors to prepare undergraduate nursing students, but had a challenge of assimilating theory and practice. Competence in nursing knowledge and nursing skills are critical components of nursing education and nurse instructors need to acquire these competencies in order to mentor BScN students.

A study done in Johannesburg (South Africa) on student nurses' perceptions on clinical instructor caring aspect, concluded a caring clinical nurse instructor makes students feel courageous, supported and given individual attention which leads to competence in the performance of nursing procedures (Meyer & Downing, 2016). In the clinical setting BScN students are expected to put into practice knowledge gained from classroom to develop skills and appropriate attitudes for nursing profession. Clinical nursing instruction includes teaching students in conferences, demonstrating nursing procedures, student evaluation, timely feedback, effective communication, cooperation and planning other training activities (Akram et al., 2018).

This kind of collaboration creates a trusting relationship between the clinical instructor, students and clinical nurses leading to production of competent and caring nurses. High levels of trust are associated with benefits such as better care and low levels of anxiety (Allinson & Chaar, 2016). A study by Wachira (2014) Kenya on the competence of newly qualified BScN nurses, identified gaps in clinical judgment abilities (competence) while Waweru et al. (2018) showed 75.4% of clinical faculty were not aware of the models of faculty clinical practice. In Kenya, a training gap is evident in the hospitals and other health institutions having nurses who are deficient in practical skills needed in patient care (Oluoch et al., 2018). The current study assessed the influence of nursing teaching strategies, clinical assessment strategies (tools) and role modeling on BScN students' clinical performance in Kenya.

1.2 Statement of the problem

Clinical nurse instructors are entrusted with the responsibility of helping BScN students to translate theoretical knowledge gained in classroom into practical skills but according to Waweru et al. (2018), Study findings showed 75.4% of clinical nurse instructors had no

knowledge of clinical nursing practice models. Ineffective clinical instruction impacts negatively on nursing student clinical performance (Hezaveh et al., 2013). The problem of BScN nurses deficient in practical skills in Kenyan health institutions prompted the present study. According to Wesangula (2014) Kenya "about half of the graduates from East African universities are suitable for employment, while more than half are not suited for their career choice". These findings are based on a survey by inter- university council of Eastern Africa. Mohamedbhai (2014) reporting on views of employers revealed that 51% - 63% graduates in Eastern Africa were found lacking job market skills while Bos et al., (2015) study found undergraduate students learning more theory and less time allocated for "hands-on- practice".

Globally studies have shown theory – practice gaps in nursing clinical practice. In Australia a study by Missen et al. (2016) showed graduate nurses lacked essential clinical skills such as problem solving, critical thinking, and patient assessment procedures. Another study done in Cambodia on building the capacity of nursing professionals, identified gaps in clinical instruction (Shimada et al., 2016). The findings showed the instructors were not aware of teaching styles, such as "student -centered" learning and approaches such as case - based practice were more emphasized than skill – based practice. Competent clinical instructors play a key role in bridging theory- practice gap and role modeling. Nursing being a service profession student performance relies heavily on clinical instruction (Allari & Farag, 2017).

In Rwanda a study carried out by Klopper and Uys (2013), showed clinical nurse instructors worked with limited support and this affected students' clinical learning adversely. The country was experiencing a critical shortage of clinical nurse instructors as a result of insufficient numbers of qualified clinical nursing faculty. This affected clinical teaching and student supervision adversely. The competency of clinical nurse instructors

plays a vital role in developing competence in nursing students because students tend to imitate their instructors. A study by Akram et al. (2018) revealed theory- practice gap exists in nursing profession and continuous student supervision would help reduce the gap. However, Hezaveh et al., (2013) found newly qualified nurses not able to apply theory to practice after graduation and recommended nursing curriculum review.

In Kenya, the problem that prompted this study was presence of BScN nurses in Kenyan hospitals who were not ready for clinical practice. They lacked clinical skills required for patient care probably because this cadre of nurses are trained to take up administration positions (East, et al., 2014) which are few therefore BScN nurses find themselves in clinical practice where practical skills are needed. Employers in Kenya recruit diploma nurses who have practical skills referred to as "hand- on" skills (East, et al., 2014). According to Nganga (2020) study, some of the expectations that employers have of new graduates, findings revealed (84.8%) of employers consider work experience as an important asset for new graduates, followed by skills.

Other studies have shown gaps in university education in Kenya where 51% of graduates were found lacking job market skills (Nganga, 2020)). Nderitu (2017) study showed County government recruitment of BScN nurses was minimal. Nyangena et al. (2011) study found only 18.8%, 34.5% and 67% of clinical nurse instructors were involved in student clinical supervision from three Kenyan Universities thus affecting student clinical performance. A study by Mwangi et al. (2019) revealed knowledge gap and negative attitude towards the utilization of nursing process in Kenyan level 5 hospitals, where 78.3% respondents agreed there was a knowledge gap.

In Ghana a study by Atakro et al. (2019) findings revealed BScN nurses were referred to as "theory nurses" denoting inadequate practical skills. Studies done locally and globally

have shown BScN nurses were well equipped with theoretical knowledge and had deficiencies in “soft” skills, a problem which manifests itself after graduation. Song and McCreary 2020) revealed lack of nursing competencies led 20% of graduate nurses to quit their position yearly causing high staff turnovers in hospitals.

Clinical Nurse Instructor teaching strategies, assessment strategies and role modeling are expected to impart knowledge, clinical skills and attitudes appropriate to nursing profession which is not the case in Kenyan universities. The observation is that students graduate from Kenyan Universities year after year equipped with theoretical knowledge and minimal clinical skills. In patient care both knowledge and skills are equally important. Lack of clinical skills in nursing practice may lead to loss of human life and poor image of the nursing profession.

1.3 Purpose of the study

The study sought to assess the influence of clinical teaching strategies, clinical learning and assessment tools, role modeling and faculty student supervision on clinical performance among BScN students in Kenya.

1.4 Objectives of the study

1.4.1 Broad objective

The main objective of the study was to assess the influence of clinical nurse instructor practices on clinical performance of nursing students.

1.4.2 Specific objectives

1. To assess the influence of clinical teaching strategies on clinical performance of BScN students in Kenya.

2. To evaluate the influence of clinical assessment tools on clinical performance of BScN students in Kenya.

3. To determine the influence of role modeling on clinical performance of BScN students in Kenya.

1.5 Research questions

1. What is the influence of teaching strategies on clinical performance of BScN students in Kenya?

2. What is the influence of clinical assessment strategies on clinical performance of BScN students in Kenya?

3. What is the influence of role modeling on clinical performance of BScN students in Kenya?

1.6 Justification of the study

The study sought to assess the influence of clinical nurse instructor practices on the clinical performance among BScN students in Kenya. The problem that prompted this research was presence of BScN graduates from higher academic nursing institutions without practical nursing skills. Professional training prepares students to acquire knowledge, skills and appropriate behavior for public service. In Kenya BScN nurses (D.E) exhibited deficiency in clinical judgment skills as observed by prior studies. A number of studies have been done on clinical nursing highlighting the gap between theory-practice gap, and measures such as employment of clinical instructors by universities put in place. Universities have introduced systems to curb plagiarism and other vices in training but BScN students are still graduating from universities lacking clinical skills. Findings of the study were to inform policy makers in nursing education, Ministry of Health (MOH) and

teaching health institutions on measures to put in place to ensure production of competent and caring BScN nurses.

1.7 Limitations of the study

The study may be time consuming with limited finances but proper planning may overcome this limitation. The researcher may not be able to verify the qualitative information from respondents. Data collection would take place during rainy season and this may affect the time schedule. No major limitations encountered during the study.

1.8 Delimitation of the study

The study was conducted in five selected Kenyan universities only. These included include public, private and Faith- based universities namely, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Egerton University, Mount Kenya University, Day star university and Catholic University of Eastern Africa. Results were generalizable to all universities offering BScN nursing programs.

1.9 Significance of the study

The study findings are to be disseminated to policy makers (MOH, NCK and the universities). The results may inform the policy makers and Nursing regulatory bodies (NCK & MOH) in policy making to improve BScN clinical programs. The report is useful in Kenyan Universities in curriculum development, support of clinical instructors and selection of teaching and assessment strategies. The report is beneficial to health institutions in planning for BScN clinical training. The findings have contributed to the nursing body of knowledge. The research has laid a foundation for other researchers who wish to carry out similar studies in the future.

1.10 Assumptions of the study

The assumptions made by the researcher in this study were validity and reliability of research tools. The sample of the study was a representative of the population under study. The respondents were honest and gave appropriate responses.

1.11: Operational definition of terms

Clinical Portfolio: Learning through self- reflection on educational experiences

Adjunct instructors: Part time clinical instructors

Clinical nurse practices: Teaching strategies, student assessment strategies/tools, and role modeling in the clinical area.

Clinical performance: student learning activities and assessments in clinical area

Clinical Nurse Instructors: BScN nurses employed by universities to guide, teach, supervise and evaluate nursing students' performance in the clinical setting

Clinical conference: Teacher- students' clinical teaching sessions

Clinical assessments: Examinations in the clinical practice area

Assessment tools: Learning documents used by students in clinical placement

Role modeling: Teaching students by example

Supervision: Teaching and guiding students in learning

Personality traits: In- born or learned behaviors

Procedure manual Nursing document that guides student in learning

Teaching strategies: Methods used by instructors in clinical instruction

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature related to clinical nurse instructor practices that influence clinical performance among BScN students- DE in Kenya. It covers studies done globally, regionally and nationally concerning the effectiveness of clinical nursing practices in teaching of BScN students. Literature will help understand the kind of strategies and skills that clinical nurse instructors use to prepare BScN students to become competent and caring nurses. In this chapter the focus will be on teaching strategies, clinical assessment strategies and role modeling.

2.2 Clinical teaching strategies

Clinical teaching is defined as "an individualized or group teaching of nursing students in the clinical area by the nurse educators, staff nurses and clinical nurse manager" (Adhikari, 2018). Under teaching strategies, the researcher focused on clinical conferences, clinical portfolios and demonstration and problem-solving methods in relation to student performance in clinical practice.

According to Encyclpedia.com (2020) instructional strategies are defined as ways used by teachers in shaping learning environment and presenting professional ideas of learning. However, Armstrong (2013) U.K study defined teaching strategies as methods used to help students learn the desired course content which enables then to develop achievable goals in the future. According to Armstrong (2013) assessment of learning capabilities of the students provides a key pillar in the development of successful teaching strategy.

In nursing clinical setting, a number of teaching strategies are available which include, lecture, demonstrations, problem solving techniques, Concept mapping, case studies,

observation and practice strategy as stated by Xu (2016). These are some of the strategies that develop critical thinking and innovation in nursing students. Theory is translated in to practice as nursing students practice return demonstrations after the instructor's demonstration. This is what Killian (2015) calls "plenty of practice" in his evidenced - based teaching strategy five. Plenty of practice means the teacher must ensure students practice what they learned in classroom because as the saying goes "practice makes perfect" (Killian, 2015).

In Kenya, a study was conducted to assess nurses' training, competence and practice in Human Immunodeficiency Virus (HIV) care and treatment. The findings indicated gaps in nurse training, perceived competency and practice in HIV care and treatment. The study recommended nurse capacity building to bridge the gaps (Janel et al., 2016).

Another study conducted at Kenya Medical Training College (KMTC) Nairobi campus on effectiveness of teaching methods, findings showed lecture teaching method was not effective although it helped students attain their training objectives (Abuga, 2015). The study recommended nurse instructors to make use of innovative teaching strategies such as demonstration, group discussions and problem-solving strategies which require critical thinking and reflection needed in patient care.

2.2.1 Conferences in clinical practice

Nursing care conference is a group discussion using problem solving strategies, to determine the ways of providing care for the patients and clients to whom students are assigned as part of their clinical experience (Obregon, 2014). Clinical conferences are prepared by the students with the guidance of the clinical instructors. The pre-clinical conference begins at the planning phase when the clinical instructor assists the nursing students to select a patient for study at the conference. The patients are prepared for the

conference and an informed consent is obtained. The students revise their classroom notes on the health condition to be discussed during the nursing conference. This teaching strategy is student- centered rather than teacher-centered. Nursing conference is a teaching strategy which clinical nurse educators can use to assist students in developing critical thinking skills (Berkstresser, 2015).

Pre-clinical conference provides teaching and learning opportunities. Conferences are usually held in a separate room from the presence of other patients to ensure privacy of the patients, Obregon (2014). During the conference the patients are presented by the students and discussion begins guided by the nursing instructor. Students are encouraged to ask questions and clarifications to link classroom knowledge and personal experiences with health care services. The focus of nursing conferences is towards the development of clinical skills and students' ability for assertive expression (Jaikumar, 2018). The clinical nurse instructor creates an environment conducive to discussion and is flexible while moving the discussion. Active participation in the conference is encouraged for students to develop nursing Knowledge, skills and attitudes appropriate to nursing practice (Gaberson & Oermann, 2012).

Post conference discussion is done through self-reflection and it enhances development of critical thinking skills in students (Berkstressor, 2015). The evaluation can be done through direct student conversation or filling an evaluation form or online communication. This phase of the conference is important because students capture main points of the conference for practice in patient care. Learners' participation may range from a sharing of information to a highly developed skill of collaboration (Shesley, 2010).

Nursing care conferences have several advantages such as helping students to collect data in a creative and systematic way. Conferences develop team building and problem-solving

skills in students thus making clinical are an interesting place for learning (Jaikumar, 2018). Students have the opportunity to link theory to nursing care practice guided by the clinical instructors.

Nursing conferences provide a real practical experience and environment to the students. If adequate student active participation is lacking nursing conferences can become very boring for and instructors can think of using conference hour for classroom teaching which disadvantages the students in clinical setting (Shesley, 2010). Clinical instructors should make the sessions as interesting as possible to avoid boredom.

In Kenya, there is limited documented information about clinical conferences in practice institutions. BScN students learn patient conditions through ward rounds and demonstrations by nursing instructors and clinical nurses. A study by Kibore et al. (2014) Nairobi County on students and Consultants decentralized training, findings showed students gain clinical skills by being actively involved in patients' care. Consultants reported that academic interaction with students had positive impact on patient care (Kibore et al., 2014). This study explored students' perceptions and experiences of nursing conferences in clinical placements.

2.2.2 Portfolios in clinical teaching

A portfolio is powerful tool of teaching where students are actively engaged in their learning and it can promote coaching process (Mollahadi et al., 2018). Reflective portfolios are collections of evidences that through critical reflection on its contents demonstrates achievement as well as personal and professional development (Plaza et al., 2007). Plaza et al. (2007) looked at portfolios as purposeful collection of student work that shows the student efforts, progress and achievement in one or more areas. This includes student participation in selecting contents, the criteria for selection, criteria for

judging merit and evidence of self- reflection. Clinical reflective portfolios and formative assessment can provide a link through theory and practice (Coffey, 2005) while Medina, et al., (2016) found portfolios a key tool in assessment of capabilities in medical students.

The concept of portfolio is gaining popularity in the field of teaching in Kenya but not without challenges. According to Mosol et al. (2016) study on portfolio development as a method of learning and assessment, identified various challenges such as reluctance of students to engage in self-reflection, lack of writing skills, and ethical issues. The study concluded clinical portfolio by students is responsive to the student uniqueness through self- directedness and creating meaning from their clinical knowledge within the practice environment (Mosol, et al., 2016). This is an area that needs to be explored to empower BScN students with self-reflection skills in nursing practice.

2.2.3 Demonstration method in the clinical area

Demonstration is an effective traditional method of teaching where students observe the instructor perform a procedure and the students return the demonstration thus developing clinical skills (Devi et al., 2019). In demonstration, communication is very useful therefore the instructor should possess good communication skills to enhance student competence. A study by Alo (2017) in Saudi Arabia revealed that practical return demonstration is an effective method of preparing nursing students for clinical practice. Therefore, Alo (2017) concluded demonstration was an effective strategy where student nurses acquire knowledge, attitude, skills and values to become competent and excellent nurse practitioners.

Kluwer (2016) classified demonstration as a higher level of learning according to taxonomy education triangle. Application of knowledge in nursing procedures entails demonstration and return demonstration for students to internalize patient care procedures

and develop skills, attitude and values necessary for nursing practice. Clinical nurse instructors demonstrate nursing procedures such as medication explaining the rationale to the students and expect a return demonstration from the students. Demonstration is an innovative teaching strategy for practice - based professions. NCK (2012) revised curriculum states that BScN students must spend two years in clinical placement practicing nursing procedures and clinical assessments to gain clinical knowledge, skills, attitude and values appropriate for nursing profession. The rationale of BScN curriculum review was to provide adequate time for students to develop competence in clinical nursing practice but to date Kenyan universities are graduating BScN –DE nurses deficient in nursing practical skills.

2.2.4 Problem solving strategy

Maheshwari (2017) defines problem solving strategy as a process of using what is known to discover what is unknown. The teacher helps students to work on problems to discover new knowledge. According to Durmaz et al. (2018), findings showed BScN students who participated in the study had inadequate problem – solving skills and the study recommended students to be trained to improve on their problem-solving skills. Another study by Shahbazi et al. (2018) results showed the students who possessed problem solving skills manifested emotional intelligence compared to their counterparts.

In Canada, a study by Ku and Ma (2016) found problem-based teaching an innovative way of instruction where problems are seen as the basis of learning and recommended educators to Problem -solving strategy to prepare students to become active thinkers and problem solvers. A study by Silva et al. (2018) showed Problem - solving teaching strategy motivates students to

In Kenya, studies have shown the importance and effectiveness of problem- based teaching strategy. A study by Ngunjiri (2019) revealed employers needed employees who possess learn thus integrating theory and practice. Problem solving skills in work places especially in handling customers. Clinical nurse instructors are expected to prepare nursing students for practice through problem – based education to equip them with skills to face the health complex issues in nursing profession.

2.3. Student assessment strategies

Student assessment refers to formative and summative evaluation. According to glossary of education reform (2013) assessment is an ongoing process that aims at improving student learning. Formative assessments are designed to assist students to learn more effectively by giving them feedback on their performance and how performance can be improved. Wabisabi teaching community (2020) states that formative assessment strategies help educators and learners with useful data about what learners comprehend and what they do not. Therefore, formative assessments are useful tools for learners in enhancing their performance. Summative assessment is used to gauge the intended learning outcome of a program.

A study conducted in the University of Arkansas, United States of America (USA) by Kelly (2012) noted adjunct clinical instructors had limited experience and lacked expertise such as knowledge on student assessment. Knowledge in student assessment is a key component of clinical teaching. Student assessment and evaluation depend on instructors' professional knowledge and if clinical instructors are deficient in clinical knowledge and skills on assessment, there is a gap that needs to be addressed to ensure competence in BScN students. Clinical assessment evaluates students' competencies in nursing practice.

Kelly (2012) recommended faculty to development programs to provide adjunct clinical instructors with necessary knowledge and preparation to become effective educators. The study used a convenience sample of 38 clinical instructors which was a small sample for generalization of findings. Random assignment of subjects minimizes bias in the study and this is lacking in quasi experimental designs. Quasi experiments raise concerns regarding internal validity due to the fact that the treatment and control groups may not be comparable at the baseline (White & Sabarwal, 2014). Quasi experimental design is applicable in cause/comparable studies. The present study will use a sample of 170 respondents, strata sampling with random sampling of respondents. The research findings (Survey) are generalizable to the population.

A study by Farzi et al. (2018) Iran findings revealed incompetence of clinical educators was one of the challenges facing nursing education and the study recommended recruitment of experienced nurse instructors. Bvumbwe and Mtshali (2018) study in sub-Saharan Africa, findings showed incompetence of clinical nurse instructors as a challenge in clinical instruction. The study recommended reforms to increase capacity for clinical instructors and mentors. Clinical education is a key component of nursing profession and capacity building for nurse educators is not an option.

A study conducted in Kenya to identify gaps in clinical instruction and evaluation, findings revealed gaps in clinical instructors' inability to demonstrate clinical instruction skills such as timely constructive feedback to nursing students and lack of direct student supervision while performing procedures (Kaloki et al., 2017). An effective clinical nurse instructor provides opportunities for students to participate in patient care, gives timely constructive feedback and provides supportive learning environment. The study relates to the present study in that the purpose of the present study was to assess the influence of clinical nurse instructor practices on clinical performance among BScN students in Kenya.

The study used cross-sectional descriptive research design which has advantage of making a sample of large number of individuals and uses questionnaire which is easy to administer. The limitation of cross-sectional research design is high non response rate where people may not participate, drop out or return partially filled questionnaires (Kimalu & Marimba, 2014). The present research will apply the same cross- sectional research design to assess the influence clinical teaching strategies, learning and assessment tools, role modeling and faculty clinical supervision on clinical performance of BScN students in Kenya. Objective clinical evaluation and timely feedback to students motivates and encourages students to learn.

According to Kaloki et al (2017) study in Kenyan hospitals, findings revealed clinical nurse instructors were unable to demonstrate clinical procedures to students and to attend to their questions appropriately. This indicated a gap in clinical instruction which may translate to inadequately prepared nurses.

2.4 Student learning and assessment tools

An assessment tool is defined as software that helps to set up appraisement and analysis of the outcome (Nelen, 2019). Nursing Council of Kenya lays emphasis on use of student learning and assessment tools. These tools are NCK procedure manual, student training file, student evaluation forms and training objectives. The student training file assesses student competencies in knowledge, skills and attitude in patient care while procedure manual guides students in performance of nursing activities. In a study by Skuladottir & Svavarsdottir (2016) results revealed an assessment tool must clarify learning objectives, assessment process and ways of ensuring objective evaluation. The grading system used to award student scores should be valid to assess student clinical performance. The clinical

assessment scores together with Licensure examination scores are requirements for the student registration by NCK (Okanga, 2017).

A study conducted by Rafiee et al. (2014) on challenges faced by nursing instructors in student evaluation, findings revealed the assessment documents used were not appropriate for measurement of competencies. Tools used by students in clinical assessments should be appropriate and updated to enhance development of clinical skills taking into consideration validity and reliability (Wu et al., 2016). Clinical nurse instructors play a key role in clinical assessment and their expertise cannot be overemphasized. They need to comprehend student learning goals, appraisal criteria and use of assessment tools (Baumgartner et al., 2017). The present study assessed the influence of assessment tools on BScN students' clinical performance.

2.5 Role modeling in the clinical teaching

According to Nouri et al. (2014) role modeling is defined as a method based on the axis of modeling and providing practical examples. This is a powerful tool in clinical learning. However, Nouri et al. (2014) found that role modeling was an unconscious process that facilitated growth in students while Benbassat (2014) argued that role modeling was only important in clinical teaching when it involves manifestation of skills, giving evaluation report, and mimicking of professional qualities but not unconscious emulation.

Clinical instructors try to put appropriate behavior in perspective of the learner in order to make necessary conditions for imitation by the learner. It was revealed by Johnson (2015) study that role models give effective instruction through their characteristics of passion, optimism, generosity and relationship focus. Role models act like a mirror to learners. Therefore, role modeling allows learners to reflect on their learning experiences. A study by Cunze (2016) South Africa showed professional nurses as important players in

student learning, who ought to portray positive attitudes such as being approachable by students and leading by example.

Direct -Entry nursing students enter universities without prior knowledge of nursing activities and role models in the clinical area assist them to develop nursing skills, knowledge of different diseases and appropriate attitudes. Role modeling is the accepted strategy for transferring professional attitudes and behaviors from the nurse instructors to the students (Adjetey, 2012). In London, findings of a study by Darch et al., (2019) revealed personal attributes of role models as being innovative, inspiring, knowledgeable caring and self-confident. Role modeling is a powerful strategy in clinical teaching, evaluation and feedback. According to a Kenyan study by Mungiira, (2019) role modeling means the person leads by example but in some instances, people lead through negative modeling thus influencing others negatively. Those persons are emulated by people especially young people who follow them blindly. Positive role modeling remains a powerful teaching strategy in BScN students' learning.

2.5.1 Mentorship and preceptor ship in clinical teaching

Mentorship is defined as a relationship between two people where one person is experienced and the other is a learner and the experienced person assists the learner to understand his/her role and responsibilities (Alzahrani, 2014). Mentors are expected to understand the learning styles of students and the leadership styles the student most respect. Alzahrani commending on Cleary et al., (2013) stated that when a student's preferred way of learning is catered for, students learn expeditiously. Mentors and mentees work together, grow and develop skills and positive attitude in the mentee (Oshinkale, 2019).

A study by Madhavanprabhankaran et al. (2013) Iran, nursing students rated competence as the most significant attribute of mentors and preceptors followed by relationship with students. These qualities were said to encourage and motivate students in the clinical environment and once adopted they improve student performance in clinical setting.

Another study by Ngaiyaye et al. (2017) Malawi, findings revealed nursing students advanced in self- confidence and gained competence in clinical practice with support of preceptors, students were able to achieve their learning outcomes. The same study recommended training of more nurse educators and preceptors in order to improve students' learning outcomes. It is difficult for mentors to address the needs of individual students due to their responsibilities and shortage of time as shown by McCloughen et al. (2011).

In clinical setting, clinical instructors and mentors need to realize their role and responsibility to nurture students whose potential aids delivery of better health care. According to Abuya et al. (2019), findings showed mentorship improves students' performance and motivates them to learn. Mentors have special qualities that make them role models as shown by Williams (2017). These qualities are Passion, confidence, easily approachable, calmness and supportiveness. Students perceive their educators as role models in the clinical practice.

2.5.2 Personality traits in clinical teaching

Psychologists have divided personality traits into five major groups namely conscientiousness, openness, extraversion, agreeableness and neuroticism (Pappas, 2017). These traits are important in nursing practice and education. Pappas (2017) argues that conscientious people are organized and have a sense of duty. They are disciplined, dependable and achievement- focused. These traits are useful in nursing clinical teaching

where nurse instructors, mentor students through their characters. Nurse instructors who are open and experienced are opportunists, creative and formulate new ways of carrying out patient care (Oshinkale, 2019). Conscientiousness is a quality that assists students to be creative and innovative and focused in-patient care particularly in preparation of patient care plans. Extraverted clinical instructors are social and cheerful in social interaction and are likely to interact well with students in the clinical environment compared to introverts. This personality trait assists students in developing interpersonal relationship skills (Mackenzie, 2019).

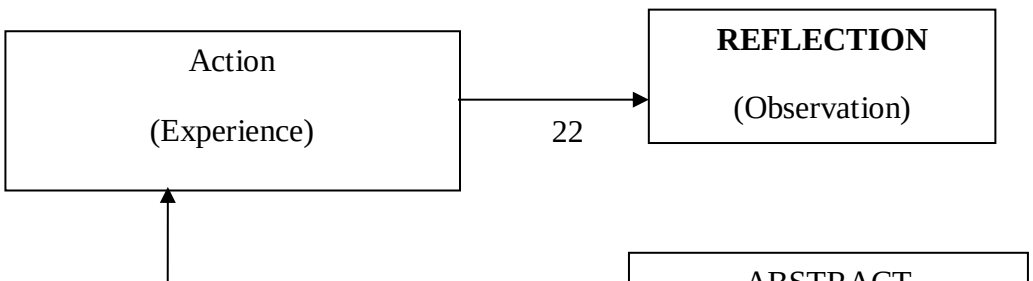
Agreeableness refers to extent a person is warm and kind. It measures warmth and kindness. Agreeable nurse instructors are helpful, compassionate and trusting willing to go an extra mile to help. They assist students to develop a caring attitude in nursing profession (Schoenly, 2020). Schoenly (2020) found open clinical instructors less judgmental and risk takers helping students to develop self-confidence nursing procedures. Nursing instructor trusting personality has been shown to help students and newly qualified nurses' performance in clinical practice. Students learn better from the educators they can trust (Mackenzie, 2019).

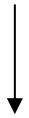
2.6 Theoretical framework

This study was guided by experiential theory by David Kolb. Experiential learning theory is defined as the process of acquiring knowledge through transformation of experience. It was developed in 1984. The theory is composed of four cycles as shown in figure one below.

Figure 2.1:

Experiential Theory Elements





Experiential learning theory is composed of four cycles of elements namely; Concrete experience, reflective observation, abstract conceptualization and active experimentation and is concerned about learning from day to day life activities (McCarthy, 2016). The theory combines experience, perception, cognition and behavior. According to Murry (2018) experiential learning is applicable in nursing where students are actively and personally involved in nursing procedures. Kolb's experiential theory is applicable for example in simulation learning.

A nursing procedure such as foley catheter insertion can be demonstrated in skills laboratory and the students practice the procedure till they acquire clinical skills. Learning by experience theory looks at concrete experience as learning by feeling and reflection on what one observes and conceptualizing experiences by thinking and actively experimenting what was observed. Nursing students are provided with the opportunity to gain experience from experience of other nurses in nursing practice (Murry, 2018).

According to Kolb and Kolb (2012) USA, experiential learning theory is ideal for use in higher education in outcome assessment, clinical educators' development, learners' development and curriculum development. Lehman (2020) found out that experiential learning theory was applicable to learners in vehicle driving schools where, abstract reading, reflection skills, and driving experience are required. Lehman (2020) argued, the learner may choose to begin by reading the driving instruction booklet, observe others

driving or start driving under instruction. Experiential theory is applicable to clinical teaching and in developing confidence and competence in nursing students.

2.6.1 Advantages of experiential learning theory

According to Atkinson (2017) experiential learning theory has the following advantages; It promotes thinking and reflecting skills, problem solving skills and creative thinking. A study by Pischalkiene and Lottrup (2019) showed experiential theory as an effective instruction strategy that prepares learners to face life challenges through critical thinking and reflection. However, Welearnindia (2016) found experiential learning developing teamwork, stimulating learning and motivating learners.

2.6.2 Limitations of Experiential learning theory

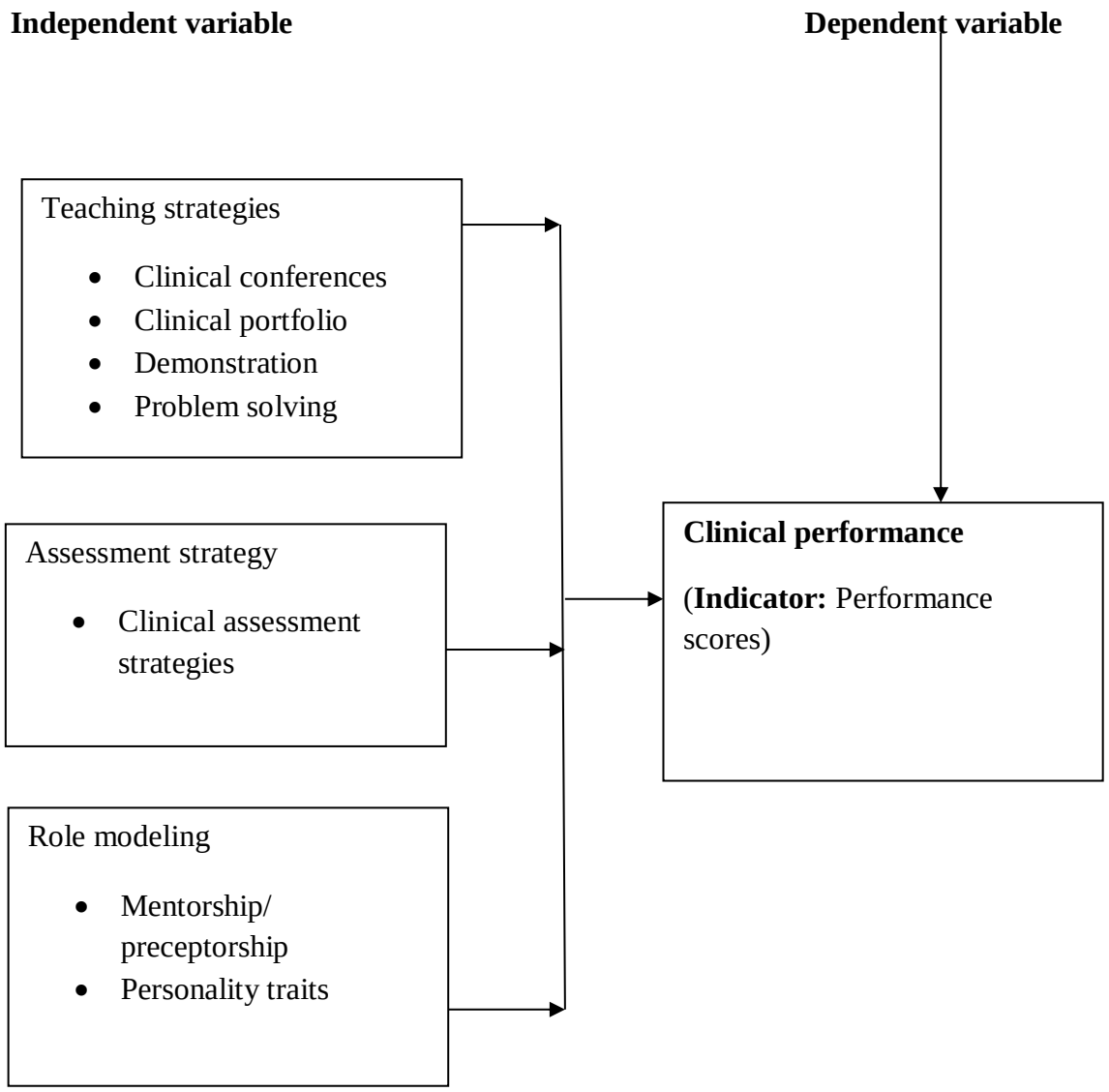
According to Dennison (2012) experiential theory is limited as disregards the crucial role of the teacher in providing the learning objectives, feedback and guidance in higher learning education. It provides limited number of factors that influence learning. When applied in higher education situation, it was found to be limited in project- based learning, collaborative learning and in extra- curriculum activities (Roberts, 2018).

2.7 Conceptual framework

A conceptual framework is an illustration of the research variables showing and their interaction within the research. It serves as a map which directs the researcher towards comprehending the purpose of the research (Swaen, 2015). Figure 2.2 illustrates the variables of this study as independent variables and dependent variables. Independent variables are clinical teaching strategies, assessment tools and role modeling. The dependent variable is clinical performance and its indication is performance scores.

Figure 2.2:

Conceptual Framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains the research design, Study Area, target population, sampling methods, techniques, sample size, data collection tools, data collection procedures and methods of data analysis and ethical considerations.

3.2 Research Design

The study applied cross- sectional descriptive survey design. The research design was used in collection of data in response to the research questions. Cross- sectional research design was selected for this study because it is designed to collect in- depth information about the influence of clinical nurse instructor practices on clinical performance among BScN students. Survey design is most suited for gathering descriptive information and is quick and low cost compared to experimental and observation methods (Maina, 2012). The limitation of descriptive survey design is participants may not be truthful or may not fill all items in the questionnaire. Confidentiality can be an issue. The results of the study are not repeatable and the study cannot be replicated by Kothari (2004).

3.3 Study Area

The study was conducted in Kenyan Universities. According to NCK (2018), the total number of BScN nurses in Kenya was Six thousand one hundred and fifty (6150). This includes BScN -DE and BScN upgrade programs. Table 3.1 below shows academic institutions of higher education training - BScN – DE in Kenya and their ownership.

Table 3.1:

Universities Offering BScN -DE in Kenya

	Universities	**Ownership**
1.	University of Nairobi	Public
2	St Paul's University	Faith- based
3.	JKUAT	Public
4.	Kenyatta University	Public
5.	Mount Kenya University	Private
6.	Daystar University	Faith- based
7.	Regina Pacis University (CUEA)	Faith-based
8.	Kenya Methodist University	Faith based
9.	Egerton University	Public
10.	Kabaraka University	Private
11.	Masinde Muliro University	Public
12.	Great Lakes University	Private
13	Moi University	Public
14.	Chuka University	Public
15.	Uzima University college	Faith based
16.	Presbyterian University of E.A	Faith based
17.	Baraton University	Private
18.	Maseno University	Public
19.	Meru University	Public
20.	University of Embu	Public
21.	Karatina University	Public
22.	Dedan Kimathi University	Public

Source: NCK, cue.or.ke

3.4 Target population

The study was conducted in Kenyan universities and the target population was BScN students. The accessible population was BScN students- DE. The study targeted 3rd year BScN students and clinical nurse instructors. Third year BScN students had undergone

their first clinical placements and therefore in a position to assess the influence of clinical instructor practices on their clinical performance. Five universities teaching BScN students were randomly selected for the study. Clinical instructors from the selected universities were targeted for interview to give their views on how teaching strategies, assessment strategies and role modeling influences BScN student clinical performance. The selected universities were JKUAT, Egerton, Mount Kenya, CUEA and Daystar. The total population in the five universities was one hundred and eighty-four (184) BScN- DE students and 12 clinical instructors. Clinical Instructors were employed by the universities.

3.5 Sampling method

The study applied stratified random sampling method in selection of the universities. Stratified sampling identifies subgroups in the population and selects from each subgroup thus ensuring the population is represented equitably (Maina, 2012). Five universities were randomly sampled form a list of 22 universities to form five strata. Small papers were prepared bearing names of the universities, were folded and mixed a small box. Five papers were picked randomly and the names read and written down. Each university formed a stratum. Simple random sampling was used to select the respondents from each stratum. Stratified random sampling gives each subject an equal chance of being selected to participate in the study (Tracy, 2013). Strata sampling is cost effective although it does not have equal individual cases in each stratum according to Maina (2012). Stratified random sampling ensures each sub-group is represented in the sample by at least one case (Oso, 2016). In sampling the clinical instructors Krejci and Morgan table (1970) was used.

3.5.1 Sample size:

The total populations of BScN students - DE in the sampled universities were one hundred and eighty-four (184) and clinical instructors were 12. The table below represents the sample size for the study.

Table 3.2:

Sample Size for the Universities

Universities	**No**	**Sampled**
Public	7	2
Private	3	1
Faith- based	5	2
Total	**15**	**5**

Table 3.3:

Sample Size Calculation- Use of Krejci & Morgan Table

Universities	**BScN students**	**3rd year**	**Sample**	**Cl. instructors**	
JKUAT		45	40	3	2
Regina Pacis		35	32	2	2
Daystar		13	12	2	2
Egerton		50	44	3	2
Mount Kenya		41	32	2	2
Total		184	160	12	10

Sample size calculation is an integral part of any research because it reflects the validity and reliability of the research as stated by Selvam (2017). Study sample size was obtained from Krejci and Morgan table. Clinical nurse instructors were selected randomly two (2) from each selected university.

3.5.2 Sampling procedure

Stratified sampling method was used to select the universities that offer BScN –D. E programs. The list of the universities was obtained from the universities' website and Nursing council of Kenya. List of third year students was obtained from the nursing departments. Study sample was obtained from Krejci and Morgan table (1970). A list of the clinical instructors from each selected university was obtained and sample was obtained using Krejci and Morgan table. Out of out of 12 instructors 10 were sampled for the study. Selection of the instructors to participate in the study was by simple random sampling. The instructors who were present during data collection and were willing to sign the consent form participated in the study two from each selected university. Krejci and Morgan Table is attached as an appendix.

3.6 Eligibility criteria

3.6.1 Inclusion criteria

The BScN students in 3rd year from the selected universities who consented participated in the study. Clinical nurse instructors who consented participated in the study. The clinical instructors had taught BScN students for more than one year. Experience in teaching was important in this study.

3.6.2 Exclusion criteria

Third- year students who declined to give consent for participation in the study or were not present during the interviews. Clinical nurse instructors not present during the interviews or who declined to give consent.

3.7 Data Collection Tools

A questionnaire and an interview guide were used to collect data. Questionnaire collects large data within a short period of time (Selvam, 2017). The questionnaire contained closed and open –ended questions.

3.7.1 The Questionnaire

A self-administered questionnaire was developed having closed and semi- structured questions addressing the clinical nurse practices influence on BScN students' clinical performance. The questionnaire consisted of two sections. Section A, which captured respondents' demographic data. Section B included three subsections covering clinical teaching strategies, student assessment tools, role modeling and clinical supervision. The questionnaire provided both quantitative and qualitative data.

3.7.2 Interview guide

An interview guide was developed with guiding questions based on the independent variables (teaching strategies, student assessment tools, role modeling). The questions were meant to elicit views from the respondents. Questions such as: "What is your understanding of the influence of role modeling in student clinical performance?" What is your perception of the assessment tools used in the clinical environment? Interviews were carried out on clinical instructors who had been supervising BScN students for more than one year.

3.7.3 Data collection

The questionnaires were administered to 160 BScN students (3^{sd} year) by the researcher. Filling of one questionnaire took 30 minutes and 20 questionnaires were administered per day. Data collection process took nine (9) days. The researcher addressed all respondents'

concerns. The filled questionnaires were collected, coded and stored for data analysis. Interview sessions took 45 minutes each. To interview ten clinical instructors took eight (8) hours. Before data collection the Researcher obtained permission from KeMU, NACOSTI and sampled institutions' research and ethical committees.

3.7.4 Piloting of the research instruments

Reliability of the questionnaire and interview guide were tested through pilot study. The piloting was done at Mbagathi teaching and referral hospital in Nairobi County which trains BScN students. Mbagathi hospital was selected purposely because it offers clinical placements to nursing students from different universities within and without Nairobi County. Twenty (20) questionnaires were administered to twenty (20) third year BScN students (D.E) who were having their clinical placement at Mbagathi County referral hospital. Two Clinical instructors were interviewed at Mbagathi county referral hospital. The respondents in pretest were not part of the samples' respondents and revision of the instruments was done before embarking on the study. The filled questionnaires were collected, coded and analyzed. Qualitative data was put in to themes and analyzed thematically. Any issues of reliability and validity of the questionnaire were addressed appropriately. Piloting of the questionnaire and interview guide ensured the reliability of the tools by checking spelling mistakes, respondents' understanding of the questions and time used to fill one questionnaire.

3.7.5 Quality control – Validity & Reliability

Construct validity of the data collection tools was achieved through nursing and education research experts reviewing the items in the questionnaire and interview guide. Reliability was achieved through pretesting of the research tools. Content validity involved measurement and looks at the accuracy of the measuring tool and an example is scores in

education. Quality control is important in research for it ensures production of quality results.

3.8 Methods of data analysis

Data analysis refers to the method of transforming raw data into usable information using logic and systematic reasoning (Perez, 2019). The filled questionnaires were collected, coding and analyzed using Statistical Package for Social Sciences Version 24. The returned questionnaires were coded and entered in the SPSS program and analyzed by descriptive and inferential statistics. Quantitative data from the five universities was analyzed using Pearson's product moment correlation tool, chi square analysis and multiple regression model. Significance level set was 0.05. Qualitative data from interviews was grouped into themes and analyzed thematically. Thematic analysis followed the six steps involved in analysis; familiarization, generating the initial coding, axial coding, and theme identification, reviewing themes and defining themes. The information was presented using charts, tables and percentages. Table 3.4 illustrates the objectives, Variables, data collection tools methods of analysis used in this study. Variables were; teaching strategies, assessment tools, role modeling and faculty supervision.

Table 3.4:

Operationalization of Variables

Objective	Variable	Data analysis tool	Data analysis methods
Determine influence of clinical teaching strategies on student performance	Teaching strategies	Questionnaire & interview guide	Chi square. correlation/ thematic analysis
Evaluate influence of assessment tools on clinical performance	Student assessment tools	Questionnaire& interview guide	Chi square/ correlation of frequency/ Thematic analysis
Determine influence of role modeling on clinical performance	Role modeling	Questionnaire & interview guide	Chi square correlation frequency/ Thematic analysis

3.9 Ethical Consideration

The researcher followed the laid down procedures for carrying out research and ensured no discrimination in data collection through random sampling. Measures were put in place to protect respondents from risks. Academic integrity was upheld by not falsifying information and report. The researcher sought an approval letter from Kenya Methodist university research and Ethics committees. Permission to collect data was obtained from Kenya National Commission for Science, Technology and Innovation (NACOSTI).

The researcher ensured quality and integrity of research by obtaining informed consent from respondents, confidentiality by anonymity of respondents, voluntary participation, avoiding harm to participants and the researcher was impartial and citing all sources of data to prevent issues of plagiarism. The researcher prepared consent letter for signing by

respondents before participating in the study. In the consent letter the researcher assured the respondents privacy and confidentiality of their information. The respondents were explained that participation in the study was voluntary and were free to pull out of the study at any stage of the study. The questionnaire was anonymous and respondents were not identified to ensure confidentiality.

The researcher sought authorization from the sampled institutions' ethics and research committees to gain access to the target population for data collection process. Authorization letters were obtained from the three counties namely; Nairobi, Kiambu and Nakuru. Further permission was obtained from the following hospital and universities' ethical research committees authorizing collection of data; Mbagathi County hospital for questionnaire piloting, Day Star University, Catholic University of Eastern Africa (CUEA), Mount Kenya University, Egerton University and Jomo Kenyatta University of Agriculture and Technology (JKUAT).

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction.

This chapter presents the results of the study, influence of clinical nurse instructor practices on clinical performance among Bachelor of Science in nursing students in Kenya. The study sought to evaluate BScN students' clinical performance. The study population included one hundred and sixty (160) BScN students and ten (10) clinical nurse instructors from the following universities; Daystar University, CUEA University (Nairobi County), Egerton University (Nakuru County), Mount Kenya University and JKUAT University (Kiambu County). One Hundred and sixty questionnaires (160) were administered to the students by the researcher and the response rate was 100%. One hundred and sixty questionnaires were filled and returned. The researcher conducted interviews on nursing clinical instructors- two from each selected university and in total ten (10) clinical instructors were interviewed. Response rate was 100%. The results are presented based on the objectives of the study.

4.2 Demographic characteristics of the respondents.

This study sought to determine the demographic distribution of students in the selected training institutions. The variables included in this analysis include age, gender of the students and institutions of study. All the one hundred and sixty respondents attempted the questions. Table 4.1 illustrates the findings of the study.

Table 4.1:

Characteristics of Age, Gender and Institutions N=160

Characteristics	Category	Frequency	%
Age	20-25	139	87
	26- 30	16	10
	31-35	3	3
Gender	Male	61	38.1
	Female	99	61.9
Institutions	Daystar university	12	7.5
	Egerton University	44	27.5
	CUEA University	32	20
	JKUAT University	40	25
	Mt. Kenya University	32	20
Total		**160**	**100**

With respect to age, majority of the respondents 139 (87%) were aged 20-25 years. Others 16 (10%) were aged between 26 -30 years and the least, 5 (3.0%) being in the age category of 31-35 years. The findings show that majority of the respondents joined the universities immediately after Kenya Certificate of Secondary Education (KCSE). Very few students joined nursing after the age of thirty years. This finding is supported by (Nyangena et al., 2013). Findings showed females were 61.9% (n=99) while male respondents were 38.1% (n=61)**.** The results showed there were more female respondents (62%) interviewed than males. These findings confirm previous studies that nursing profession is female dominated (Kamau, 2016).

In table 5 findings of the study revealed private and faith- based institutions enrolments were low 47.5% compared to public institutions with 52.5%. Egerton University had the highest enrolment of students 44 (27.5%) and Daystar University had the lowest enrolment 12 (7.5%). The results of university enrollment showed Egerton University was

leading with 44 (27.5%) followed by JKUAT with 40 (25%), CUEA and Mount Kenya Universities each had 32 (20%) while Daystar university had the lowest sample of 12 (7.5%).

4.3 Clinical teaching strategies and student performance

The teaching strategies investigated were demonstration, problem solving, clinical conferences and clinical portfolios.

4.3.1 Findings on clinical teaching strategies

In table 4.2 findings shows majority of the 149 (93.1%) respondents had procedures demonstrated to them by their clinical nurse instructors. Eleven (6.9%) of the respondents reported not having experienced demonstration strategy during their clinical placement. It is clear from the results demonstration teaching strategy is the most preferred strategy in the clinical placements and classroom teaching in Kenyan universities (Mwatsahu, 2015). It emerged problem solving strategy was not widely used by clinical instructors. Findings showed only 44 (27.5%) experienced problem-solving strategy while 116 (72.5%) did not. Ironically those who did not experience this strategy performed better than those who reported to have experienced it.

Table 4.2:

Teaching Strategies Experienced by Students n=160

Teaching strategy	Experienced the strategy	Did not experience	Total	(%)
Demonstration	**149 (93.1%)**	11 **(6.9%)**	160	100
Problem solving	44 (**27.5%)**	**116 (72.5%)**	160	100
Clinical conferences	57 (**36%)**	**103 (64%)**	160	100
Clinical portfolios	38 **(24%)**	**122 (76%)**	160	100

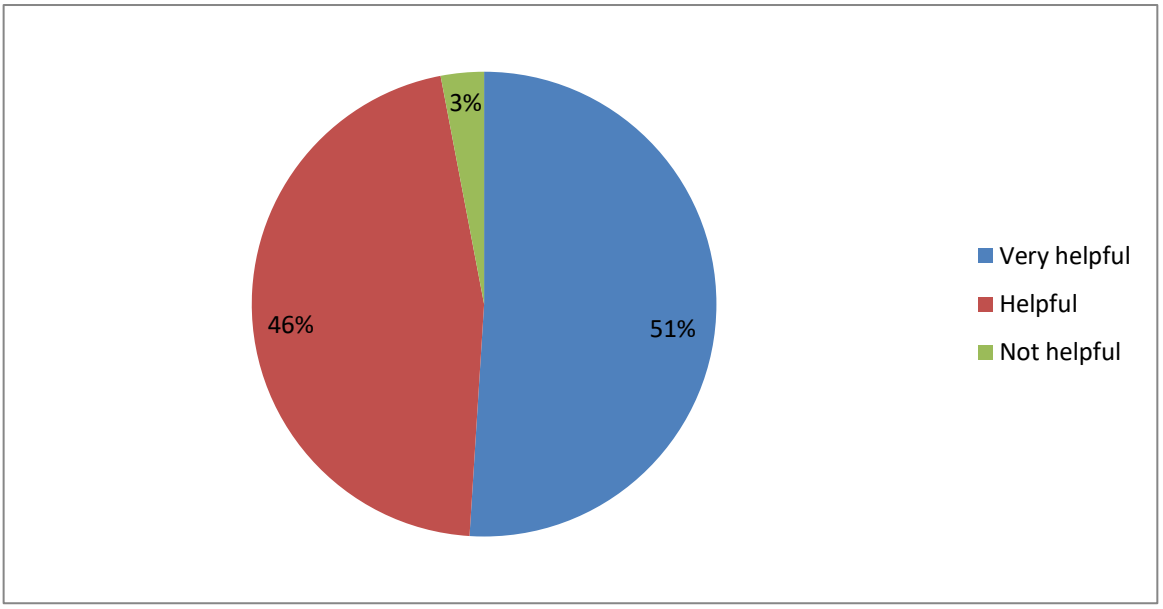
Table 4.2 findings showed 57 (35.6%) respondents experienced clinical conferences while majority of respondents 103 (64.4%) reported not having had clinical conferences with their clinical instructors. From the same table results showed majority of the interviewed respondents 122 (76.3%) had not experienced portfolios during the clinical placements while 38 (23.8%) reported having clinical portfolios in their clinical placements. This implies clinical portfolios and conferences are not widely used by clinical instructors in Kenyan universities Priscah et al., (2016), although studies elsewhere have shown the two strategies to be powerful teaching methods.

4.3.2 Helpfulness of clinical conferences and portfolios

The study sought to determine the influence of clinical conferences and portfolios on clinical performance of BScN students in Kenya. One hundred and twenty-three (123)76.8%respondents attempted this question.

Figure 4.1:

Helpfulness of Clinical Conferences and Portfolios n=123



In figure 4.1 majority 139 (51%) of respondents reported having found clinical conferences and portfolios very helpful. This proportion was followed by 56 (46%) who found the strategies helpful while the minority, 4 (3%) did not find them helpful. Among the 123 respondents who responded to this question 119 (96.7%) found these two teaching strategies helpful in development of clinical competencies while only 2.5% found the strategies not helpful. In conclusion these teaching strategies were found helpful by the majority of the respondents.

4.4 Clinical learning and assessment tools used by the students

The study sought to identify and evaluate tools used by respondents in the clinical area and how they influenced clinical performance. The clinical assessment tools identified were student training files, student logbooks, procedure manuals and learning objectives.

Table 4.3:

Clinical Assessment documents used by Nursing Students in Clinical Practice n=160

Clinical assessment tools	**Having the tools**	**Not having the tools**	**Total**	**%**
Training file	30 (18.75%)	130 (81.25%)	160	100
Student Log book	140 (87.5%)	20 (12.3%)	160	100
Procedure manual	114 (75.25%)	46 (28.75%)	160	100
Training objectives	96 (60%)	64 (40%)	160	100

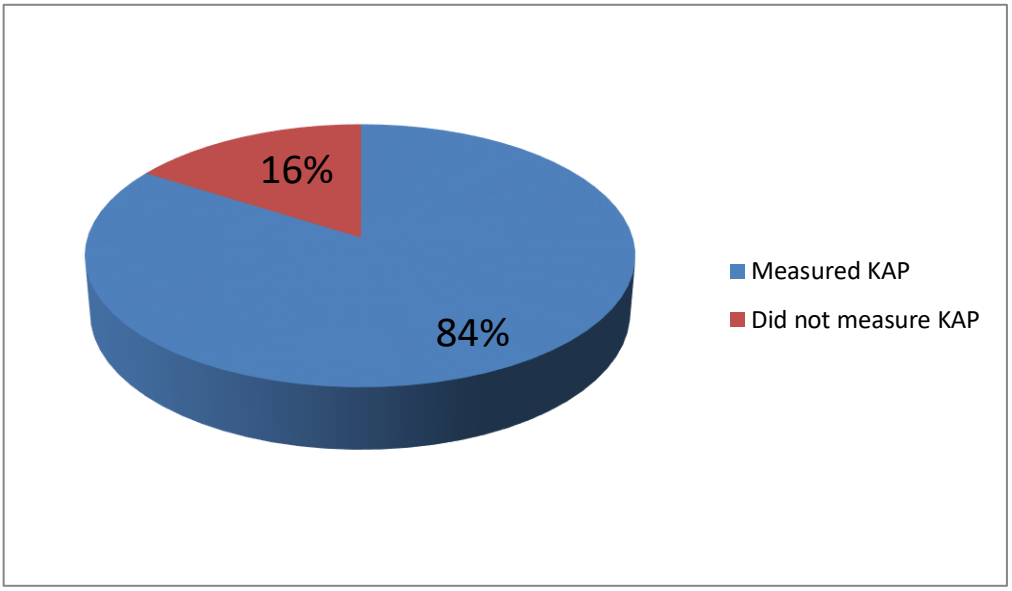
The respondents were to make multiple choices. In table 4.3 results showed majority of the respondents 130 (81.25%) did not have training file to guide them in their clinical practice while 30 (18.75%) respondents reported having training files. From the same table findings showed, majority of respondents 140 (87.5%) used logbooks in their clinical practice while 20 (12.3%) respondents reported not using logbooks in clinical practice. Pertaining procedure manuals findings revealed majority of the respondents 114 (71.25%) used procedure manuals in the clinical area while 46 (28.75%) of the respondents did not have procedure manuals. Results indicated majority of the respondents 96 (60%) used learning objective while 64 (40%) respondents reported not having learning objectives in their clinical practice. Respondents were expected to tick the tools from a list provided in the questionnaire. Therefore, it may imply that those who ticked not having the tool may have not understood the question or did not have the assessment tools. The clinical faculty should come up with ways of ensuring availability and use of learning and assessment tools in clinical practice by students.

4.4.1 Students' perceptions of the influence of assessment strategies on clinical performance.

The study examined the influence of clinical assessment tools in the development of clinical competencies. This question was responded to by 156 (97.5%) respondents.

Figure 4.2:

Contribution of Clinical Assessment Tools in Measuring Knowledge, Attitude and Practical Skills (KAP) (n=156)



The researcher sought respondents' perceptions on effectiveness of learning and assessment tools in clinical performance. Figure 4.2 shows majority of the respondents 131 (83.9%) affirmed hat clinical assessment tools measured clinical competencies (KAP) while 25 (16%) respondents reported assessment tools do not measure competence.

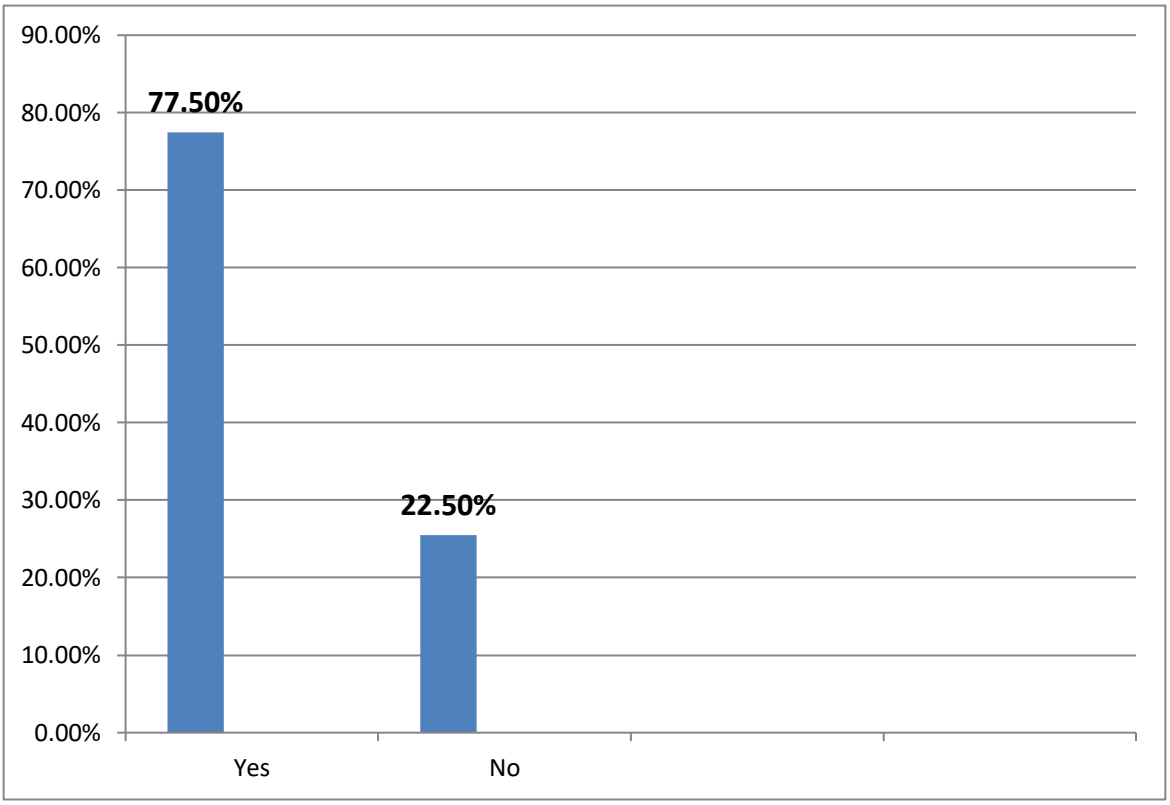
4.5 Students' perception on the influence of clinical assessments on performance

The study sought to determine the respondents' perception on the influence of clinical assessments (examinations) on student performance. This question was answered by all

the respondents, 100% (n=160). The respondents were further asked whether clinical assessments influenced their clinical performance.

Figure 4.3:

Influence of Clinical Assessments on Clinical Performance n=160



In figure 4.3 majority, 124 (77.5 %) of the respondents reported that clinical assessments influenced their clinical performance, while 36 (22.5%) reported that assessments did not influence their performance. The respondents who answered yes reported assessments helped them to bridge theory- practice gap. Nursing profession being a practice profession, students are expected to perform practical examinations known as clinical assessments. The assessments test knowledge gained in classroom, skills acquired in clinical practice and student attitudes. In this study respondents were expected to give their own perceptions on whether clinical assessments influenced their performance scores.

4.5.1 Students' explanation of how clinical assessments influenced their performance

One hundred and twenty-eight 128 (80%) respondents attempted this question. The question was attempted by those respondents who acknowledged clinical assessments influenced performance.

Table 4.4:

Influence of Clinical Assessments on Performance n=128

Influence of clinical assessment on learning.	**Frequency**	**(%)**
Enabler to learning	64	50
Helps one develop competence	32	25
Bridges the gap between theory and practice	17	13.3
Enhances focus on learning objectives	15	11.7
Total	**128**	**100**

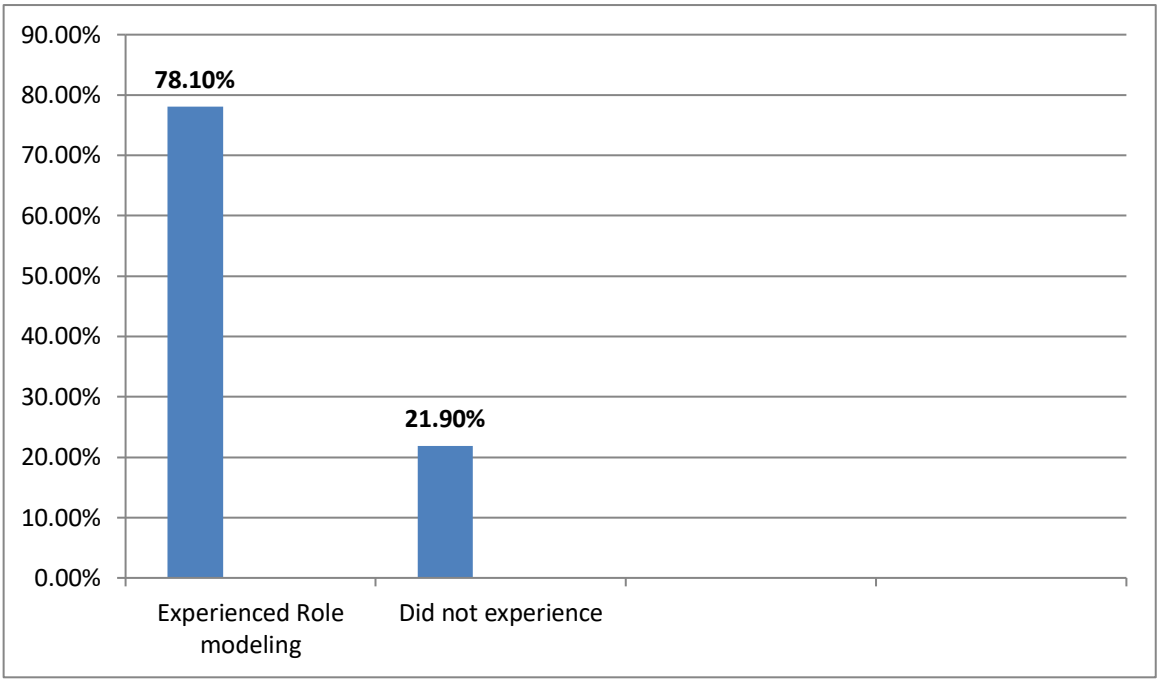
From table 4.4 findings show 64 (50%) respondents held the view that assessment enhanced clinical performance by being an enabler to learning, 32 (25%) of the respondents cited clinical assessment as helping them develop clinical competencies while 17 (13.3%) reported that assessments helped students bridge the gap between theory and practice. A small number of the respondents 15 (11.7%) reported **t**hat assessment helped enhance focus on learning objectives. Findings revealed clinical examinations enables students to learn, develop clinical competencies in nursing procedures, application of learning objectives and thus bridging theory- practice gap.

4.6 Influence of role modeling on student clinical performance.

The Students were asked if they experienced role modeling in the clinical area.

Figure 4.4:

Role Modeling on Clinical Performance n=160



From the results on figure 4.4 it is clear majority 125 (78.1%) of the respondents experienced role modeling while 35 (21.9%) respondents did not experience role modeling. Findings showed there was role modeling in the clinical environment. According to respondents' perceptions nurses and clinical nurse instructors provided role modeling. This is a powerful learning tool in clinical practice.

4.6.1 Clinical instructors' personality traits influencing learning most

Respondents were expected to choose among the following personality traits; Openness with students, dependable & achievement focused, trusting and availability. Figure 7 illustrates the findings.

Figure 4.5:

Clinical Instructor's Personality Traits n=160

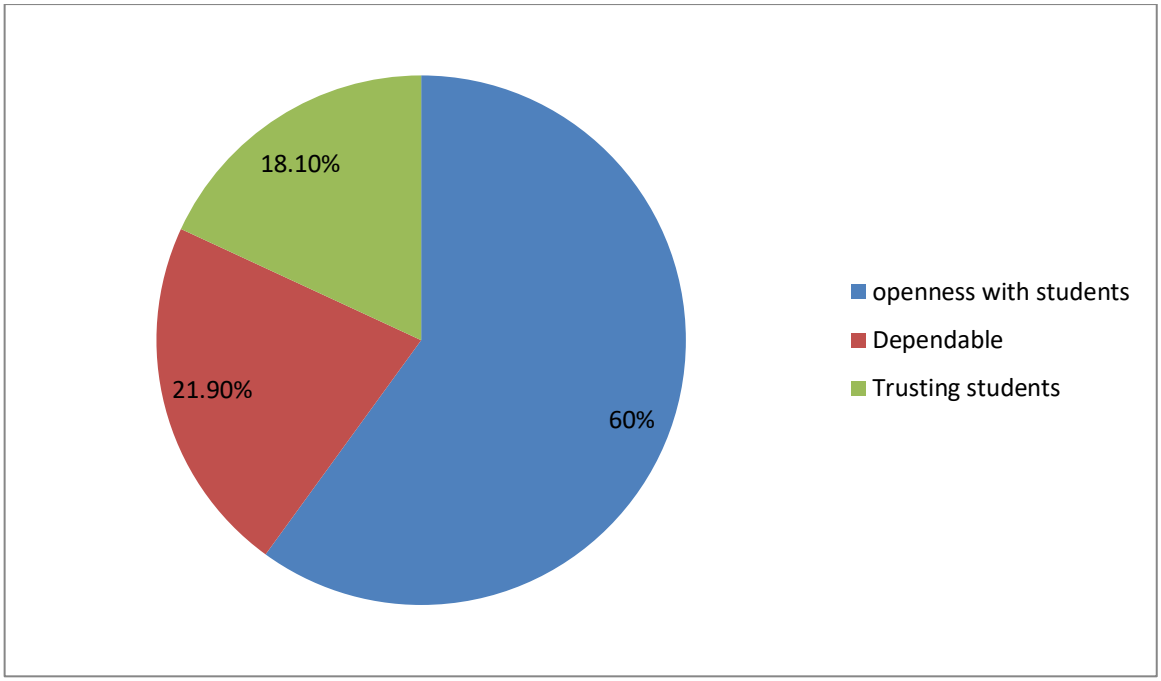


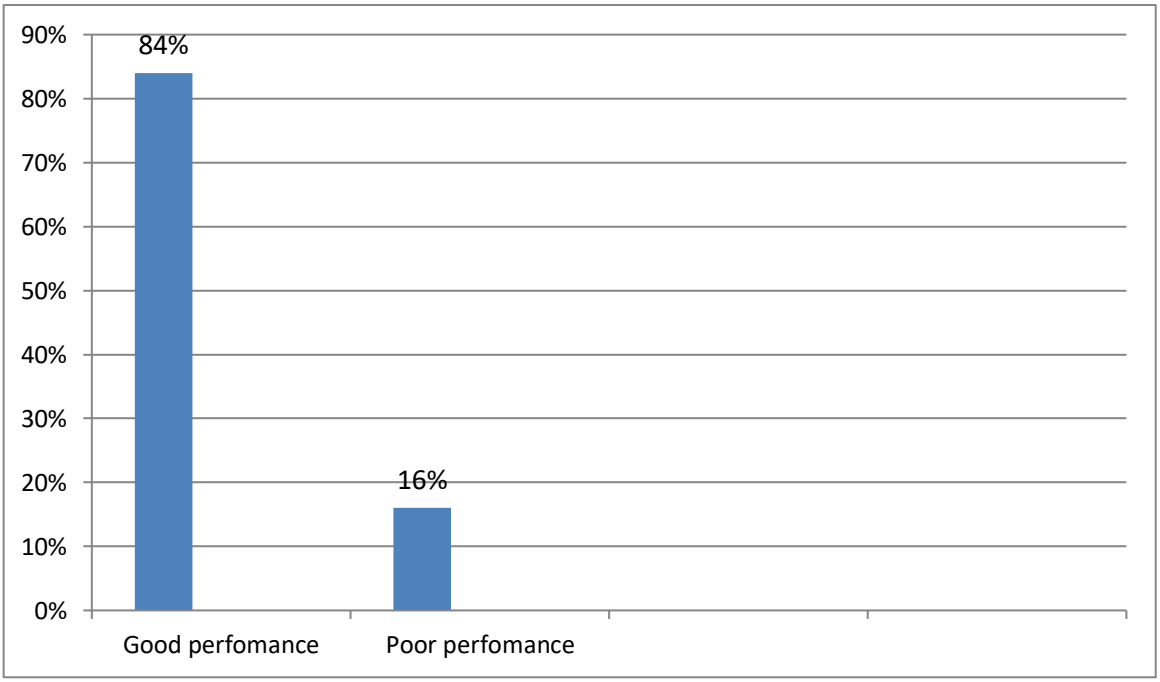
Figure 4.5 results showed openness with students was cited as the personality trait that influences learning most 96 (60%). This was followed by dependable and achievement focused –35(21.9%). Trusting and availability traits came third being cited by 29 (18.1%) respondents. Findings suggested that student clinical learning is mostly influenced by clinical nurse instructors who are open with students.

4.7 Clinical performance in first clinical assessment

The study sought to determine student clinical performance based on the students' first clinical assessment in the clinical area. The pass mark point for clinical assessments in all the institutions was 70%. The results were graded as fail (poor) performance and good performance. Fail performance was marks below 70% and good performance was marks 70% and above. The performance was assessed via self-report and the mean score was 77.24% and the mode was 70%.

Figure 4.6:

Students' performance in their first clinical assessment n=160



In figure 4.6 findings showed majority of the respondents 134 (83.75%) had good performance while 26 (16.25%) attained fail performance. Findings showed good performance for most of the students. Fail performance translated to re-take of the examination. Therefore 16.25% of the respondents had to re-take the assessment.

4.8 Respondents' scores based on gender and institution

The performance was assessed through self-report and the mean score was 77.24%. Table 4.5 illustrates the findings.

Table 4.5:

Students' Performance Based on Gender and Institution n= 160

Characteristics		Good. Performance **>70%**	Fail performance **<70%**	Total	Percent%
Gender	Female	79	20	160	100
	Male	53	8		
Institution	Public	68	16	160	100
	Private	64	12		

Table 4.5 findings showed female respondents 79 (59.8%) performed well compared to males 40.2% (n=53). Further findings showed female 20 (71.4%) respondents attained fail performance while males 8 (28.6%) respondents had fail performance. Findings from Private and faith- based institutions were combined and reported as private institutions.

Performance as per institutions findings revealed public institutions 68 (51.5%) performed slightly well compared to the private institutions 64 (48.5%). Pertaining Fail or poor performance respondents from public institution performance poorly16 (57.1%) compared to Private institutions' 12 (42.9%) performance. That means more respondents from public institution (16) attained fail performance compared to private institutions (12). All in all, findings of the study showed respondents from public institutions performed better compared private institutions. However, the difference in performance was not statistically important (p=0.252).

4.9 Bivariate analysis of the findings

4.9.1 Point Biserial correlation

To determine the strength of the relationship between the independent variables and dependent variable, a point-biserial correlation coefficient (r_{pb}) was performed ("Correlation, Point-Biserial," 2017). This analysis used aspects of dichotomous data from the independent category and the continuous data which was student performance. An assessment of the data using the box plot showed no outliers. The results of this assessment are presented in table 4.6.

Table 4.6:

Point-Biserial Correlation Test on Student Clinical Assessment n=157

		Gender M/F	**Age 20-30yrs**	**Instructor availability**	**Trusting Personality**
Performance in assessment	Pearson Correlation	- 0.069	0.017	-0.015	- 0.118
	Sig. (2-tailed)	0.392	0.828	0.850	0.141
N		**157**	**157**	**157**	**157**

A point-biserial correlation was run between these independent variables and performance in clinical assessment. As shown in table 4.6 the point-biserial correlation analysis found that gender, instructor availability in clinical area and trusting instructor personality were weakly and negatively (rpb = -0.069, -0.015 and - 0.118) associated with performance in clinical assessment, while age was positively (rpb = 0.017) associated with performance in clinical assessment. There was no difference in mean score based on gender, instructor availability or instructor's trusting personality. The findings showed gender of the respondents, availability of clinical nurse instructors and trusting personality of the clinical instructors did not contribute to student clinical performance scores. Findings revealed age

of the respondents significantly influenced student performance (rpb= 0.017). The finding is in line with the observation that 87% of the respondents of the study were in the age category of 20-25 years and 10% respondents between 25- 30 years. In conclusion Gender, clinical supervision and role modeling (trusting personality) did not contribute to student performance scores. Age of the respondents statistically significantly contributed to performance scores (p=0.017).

4.9.2 Chi-squared analysis test on student first clinical assessment scores.

To test for association between independent variables and the dependent variable, the chi-squared test was used. The independent variables were teaching strategies and assessment tools. The dependent variable, Performance in assessment, was dichotomized into fail score= <70% and good score = >70%. The findings of the cross tabulation are illustrated in table 4.7. There were more females, 59.8% (n=79), who performed Good (well) as opposed to males, this result however was not statistically significant (χ^2=1.313, df=1, p=0,252). Findings are supported by Joseph et al. (2015) who found performance by gender significant (p=0.80). There were slightly more students from public institutions, 51.5% (n=68) who performed good (well) as opposed to those from private institution. This difference was however not statistically significant (χ^2=0.293, df=1, p=0.588) contrary to miller and Win (2020) study findings. Students who reported not having experienced problem-solving teaching method 77.3% (n=103) performed good as opposed to those who reported having experienced this method of teaching. This difference was statistically significant (χ^2=8.618, df= 1, p= 0.003). From table 4.7, it is evident that many other factors that influence clinical performance in assessment were not independent from the two groups of good and fail performers.

Table 4.7:

Chi-squared Analysis Test on Association of Clinical Nursing Practices and Student Performance Scores

Independent variables.		Performance in clinical assessment.					
		Good		Fair			
		n	%	n	%	N	P=≤ 0.05
Gender	Male	53	40.2	8	28.6	61	χ^2=1.313
	Female	79	59.8	20	71.4	99	df=1
	n	132	100	28	100	160	p=0.252
Institution.	Public	68	51.5	16	57.1	84	χ^2=0.293
	Private	64	48.5	12	42.9	76	df=1
	n	132	100	28	100	160	p=0.588
Availability of clinical instructor.	Yes.	53	40.2	10	35.7	63	χ^2=0.191
	No.	79	59.8	18	64.3	97	df=1
	n	132	100	28	100	160	P=0.662
Clinical instructor openness.	Yes.	79	59.8	17	60.7	96	χ^2=0.007
	No.	53	40.2	11	39.3	64	df=1
	n	132	100	28	100	160	p=0.932
Clinical instructor as a role model	Yes	105	79.5	20	71.4	125	χ^2=0.891
	No	27	20.5	8	28.6	35	df=1
	n	132	100	28	100	160	p=0.345
Experienced problem-solving teaching method	Yes	30	22.7	14	50	44	χ^2=8.618
	No	102	77.3	14	50	116	df=1
	n	132	100	28	100	160	**p=0.003**
Experienced clinical conferencing teaching method	Yes	42	34.1	12	42.9	57	χ^2=0.774
	No	87	65.9	16	57.1	103	df=1
	n	132	100	28	100	160	p=0.3379
If assessment tools measure KAP	Yes	101	76.5	23	82.1	124	χ^2=0.420
	No	31	19.4	5	17.9	36	df=1
n		132	100	28	100	160	p=0.517

Table 4.7 Chi square test findings showed institution of study, availability of clinical instructors (clinical supervision), role modeling and clinical conferences (p= 0.588, p=0.662, 0.345 and p=0.337) respectively did not contributed to clinical performance

scores significantly. However, problem solving strategy (p=0.003) was strongly associated with performance scores and this was statistically significant. It is evident chi square analysis did not find gender, institution, personality trait, conferences and portfolios associated with performance scores. The findings are supported by Etikan, et al. (2017 findings which showed no association of institution and student performance (p=0.506).

Clinical portfolio association with clinical performance did not have statistical meaning (p=0.662). The finding is supported by Pool et al. (2020) study findings that showed use of portfolios in assessing students resulted into fragmented picture of student development therefore it did not significantly influence student performance. The relationship between clinical conferencing and clinical performance did not have statistical notable effect on student performance scores (p=0.336). Conferencing teaching strategy was found to influence student performance by Li (2007). The association of problem-solving strategy and clinical performance was statistically important (P=0.003). Aidoo et al. (2016) revealed problem-based learning was effective strategy in teaching chemistry and enhancing development practical skills (p<0,05) thus supporting the current study findings.

Although Chi square test analysis showed no statistically significant between conferences, portfolios and student performance scores the findings differed with Jepketer (2017) which showed significant relationship between teaching strategies and student's performance.

4.9.3 Multiple regression analysis of Predictors of student performance

To predict student performance based on independent variables (nursing teaching practices) a model was created to assess the overall fit of the model and the relative contribution of each of the predictors to clinical performance in assessment. The predictors

are the institutions and teaching strategies. The data was assessed for independence of residuals using the Durbin-Watson statistic.

Table 4.8:

Regression Model Summary on Student Performance -Independence of Observation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	0.491	0.241	0.227	7.861	2.034

Durbin Watson test was done to test for autocorrelation (independence of observations) whose values are between 0 and 4. Any value less than 2 is indicative of perfect positive autocorrelation while values between 2 and 4 indicate perfect negative autocorrelation. In table 4.8, Durbin- Watson statistic was 2.034 showing no autocorrelation of the performance scores. To understand the influence of Clinical teaching practices on students' performance, a scatter plot box was used to test for linearity and homoscedasticity by plotting student residuals against unstandardized predicted values. A visual inspection of the scatter plot showed the variables had a linear relationship and were homoscedastic. Findings showed strong relationships between nurse instructor practices (clinical conferences, institution and clinical portfolios) and student clinical performance scores and the difference around the regression line was equal for all the values of independent variables. The R2 for the overall in regression model was 24.1% with an adjusted R2 of 22.7%, a small size effect. This meant that the addition of the independent variables into the regression model explained 24.1% of the variability of clinical assessment scores.

4.9.4 Multicollinearity diagnostic testing

To understand the correlation between nurse instructor practices and student clinical performance multicollinearity diagnostics was performed using inspection of correlation coefficients and Tolerance/ variance inflation factor (VIF) values. The findings are illustrated in table 4.9.

Table 4.9:

Multicollinearity Diagnostics

Correlations		**Collinearity Statistics**	
Pearson correlation	**Score**	**Tolerance**	**VIF**
Age in category	-0.034	0.940	1.064
Gender	-0.063	0.908	1.101
Performance influence	0.079	0.808	1.237
Problem solving experience	0.037	0.726	1.377
Institution	0.287	0.903	1.107
Clinical Conference experience	-0.004	0.637	1.569
Clinical Portfolio experience	0.156	0.583	1.715
Had conferences in the clinical area	-0.210	0.492	2.035
Helpfulness of Portfolio.	-0.207	0.428	2.338

The table 4.9 shows that there was no multicollinearity in the data as shown by all VIF < 10 and no correlation between the variables > 0.7. Finding revealed age, gender, institution, problem-based teaching, clinical conferences and portfolios were not highly correlated to affect the validity of the study results negatively.

Pearson's correlation analysis findings showed independent variables (age, institution, clinical conferences and portfolios) were not highly correlated as shown by VIF < 2.5.

A Statistical significance regression model was used to predict student assessment scores. Table 10 illustrates the findings.

Table 4.10:

Statistical Significance Model (Analysis of Variance)

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	2866.001	11	260.546	4.216	**0.000**
Residual	9022.876	146	61.801		
Total	**11888.877**	**157**			

This model showed the variables in the correlation table 4.9 statistically significantly predicted clinical assessment score**, F (11, 146) = 4.261, p< 0.001** as shown in table 4.10. It meant the independent variables in table 4.9 (age, gender, institution, conferences and portfolios) contributed significantly to student performance scores as shown by P values less than one.

4.9.5 Multiple regression coefficients on nursing practices influencing performance

To assess the independent variables that could predict clinical performance scores, a multiple regression model was developed using the variables in table 4.11. The forward method was employed to get the best model fit. Three variables institution, clinical conference and clinical portfolio use were assessed. All the three variables contributed statistically significantly to the prediction of student clinical assessment scores, $p < 0 .05$.

Table 4.11:

Multiple Regression Coefficients on Nursing Practices Influencing Performance

	Unstandardized Coefficients		**Std. Coeff**			**95.0% CI for B**	
	B	Std. Error	Beta	**t**	**Sig.**	Lower Bound	Upper Bound
(Constant)	70.736	3.622		19.530	0.000	63.581	77.891
Institution	1.735	.495	0.262	3.507	0.001	0.758	2.712
Clinical Conference	-3.882	1.412	-0.206	-2.749	0.007	-6.672	-1.092
Clinical Portfolio	3.326	1.516	0.164	2.193	0.030	0.331	6.320

The prediction equation for scores was: Predicted clinical score = b0 + (b1 x importance of assessments) - (b2 x Clinical conference) + (b3 x clinical portfolio use). Therefore, Predicted Scores = 70.736 + (1.735 x Institution) - (3.882 x Clinical conference) + (3.326 x Clinical portfolio use). For this study, in the data set, institution was coded as 1= private 2= public (Daystar, Egerton, CUEA, Mount Kenya, JKUAT). For explaining importance of assessments; 1= Bridges the gap between theory and practice, 2= helps one develop competence, 3= Enhances focus on objectives. For the clinical conference; 1=Yes, 2= NO; while for clinical portfolio 1= yes and 2= NO.

In table 4.11 findings show institutions, clinical portfolios use, and clinical conferences (p=0.001, p=0.007, and p=0.030) values are statistically significant in predicting student performance scores. The fact that the p - values are less than the significance level 0.05 meant the three variables strongly contributed to student performance scores.

4.10 Qualitative research findings (Clinical Nurse instructors)

The researcher sought to obtain detailed information from the clinical nurse instructors on how clinical nursing practices influenced clinical performance of BScN students in Kenyan Universities. The interviews aimed at giving the respondents an opportunity to

express openly their feelings and views on the influence of teaching strategies, assessment tools, and role modeling in the clinical instruction of BScN nursing students. Ten (n=10) clinical nurse instructors, two from each selected university were interviewed. Each interview took 45 minutes. The selection of respondents was based on teaching experience and willingness to participate in the study. Respondents were selected randomly and some were found in the teaching institutions while others were in the clinical area. Those interviewed had supervised BScN students between 2 - 13 years. They were all versed with the research topic.

4.11 Demographic characteristics of the clinical nurse instructors

The total number of respondents was 10 and (90%) were females and one (10%) male. This shows the presence of male nurses is still low in nursing profession in Kenya (Kaniaru & Chebor 2017; Kamau, 2016), All the respondents were between 30- 45 years of age. Table 4.12 findings showed four (40%) respondents were below forty years while six (60%) were above forty years. Respondents' clinical teaching experience was between two years and thirteen years. These were experienced nursing instructors who were well versed with issues of clinical instruction in Kenya.

Findings showed six (60%) of the respondents had supervised BScN students between (2-6 years) while four (40%)) respondents had an experience between (7-13 years). This shows all the clinical nurse instructors had met the criteria set by the researcher of more than one-year experience. Six (60%) respondents taught in private teaching institutions while four (40%) taught in public institutions. Their different experiences were expected to enrich the study. Okanga et al, (2017 findings showed years of experience had positive association with student performance.

4.12 Respondents' perception on the use of clinical teaching methods

Clinical instructors were expected to give their own views concerning demonstration, problem-based learning, clinical conferences and clinical portfolio teaching strategies. All the clinical instructors responded to this question.

All the ten (100%) respondents reported having used demonstration method in clinical instruction and agreed it was the most commonly used strategy in nursing practice. Clinical conference strategy was used by eight (80%) respondents. Two (20%) respondents reported not having used conference method in clinical teaching. The reason given for not using clinical conference was increased workload due to shortage of human resources in clinical setting.

Eight (80%) respondents applied clinical conferencing in teaching while two (20%) did not. The reason given for not using clinical conferences was shortage of clinical nurses in the clinical environment leading heavy workload nursing students covering the shortage and little time for conferences. The findings appeared to disagree with student findings (35%) that clinical conferencing was not widely used in Kenyan health facilities. The difference in opinions is supported by Konings et al. (2014) study findings.

Problem solving strategy involves clinical nurse instructors giving students assignments in the clinical area then evaluating the outcome together. Three (30%) clinical instructors reported using this method of teaching while seven (70%) reported not using problem – based teaching. The rationale for not using problem solving strategy was the clinical instructors doubled as classroom lecturers as well as clinical instructors so citing increased workload. Two (20%) respondents reported having used clinical portfolio method and journaling and this helped some students in developing creativity and critical thinking in clinical practice. However, they reported the method needs a lot of instructor/ student

commitment. Eight (80%) respondents reported not using this method in clinical teaching. All the ten (100%) respondents reported that if the four clinical teaching strategies were used in clinical environment regularly it would improve the quality of clinical performance of BScN students. They agreed these strategies help in development of competencies in nursing students.

4.13 Clinical Instructors' perceptions on nursing clinical assessment strategies

The study sought to evaluate clinical instructors 'perception on the effectiveness of the assessment strategies in measuring knowledge, attitude and practical skills. Six (60%) respondents reported nursing clinical assessment tools require review to be able to measure student competencies (KAP) in clinical procedures. The tools which needed review were procedure manual and student training file. Reasons given are procedure manual last edition was done in the year 2009 and needs review to include the already new nursing procedures currently done such as male circumcision. Student training file does not specify how to test student attitude but specifications for testing knowledge and practical skills were present. Four (40%) respondents reported the assessment tools measured student KAP. This finding is supported by Chege et al. (2014) study findings on revision of assessment tools.

4.14 Respondents' perception on role modeling in the clinical area

Clinical Instructors were required to give views on the presence of role models in the clinical environment. All the ten Instructors gave their views on this question and agreed role modeling was evident in the clinical training. They even came up with some percentages to illustrate their responses. Ten (100%) respondents reported presence of role models in the clinical area. Some clinical nurses and clinical instructors were practical role models to students while others were not. Six (60%) respondents rated role modeling to

10% while four (40%) respondents rated it at 15%. Reasons for such rating were some nurses (mentors) exhibited procedural incompetence and some faculty members showed clinical incompetence therefore could not act as role models in the clinical area. When faculty members are deficient in clinical experience it leaves the students at the mercy of the clinical nurses who if not also competence in nursing procedures may affect the quality of clinical teaching. Kaloki (2015) study found clinical nurse instructors being incompetent in clinical procedures.

4.14.1 Influence of role modeling on student clinical performance

The clinical instructors reported that role modeling helps BScN students to develop practical skills and positive attitude towards nursing profession. Ten (100%) respondents reported role modeling encourages students' learning, performance of clinical procedures, development of nursing competencies and improvement clinical learning (Perry, 2009). During clinical placements, BScN students in Kenya practice under the guidance of clinical nurses. They rely heavily on the knowledge and expertise of clinical nurses in clinical training (Bvumbwe & Mtshali, 2018).

4.15 Discussion of the findings

This section presents a discussion integrating the findings of both quantitative and qualitative data. The researcher sought to determine respondents' perception on the influence of clinical teaching strategies, assessment strategies, role modeling on BScN students' clinical performance. Discussion was based on the four research objectives namely; Clinical teaching strategies, clinical assessment strategies and role modeling. The study was both quantitative and qualitative. Quantitative method collected data from the 3rd year nursing students about their clinical learning experience while qualitative data was obtained from clinical nurse instructors. One hundred and sixty nursing students and ten

clinical instructors were interviewed after giving their informed consent to participate in the study.

Age. Gender and institution of study

Findings of the study showed majority of the respondents (87%) were between 20-25 years of age and 15% between 26-30 years. Findings on gender revealed more females (61.9%) than males (38.1%) were interviewed thus confirming earlier studies that nursing is a female dominated profession (Kaniaru & Chebor, 2017). This finding is supported by a Kenyan study by Nyangena et al. (2013) where findings showed 72.9% of respondents were ages between 20-27 years and 4.8% were aged above 30 years. Institutional enrolment was found to be higher in public universities compared to private and Faith-based universities with highest percentage being 27.5% and the lowest 7.5%. In conclusion, nursing profession is a profession of caring, dominated by females and practiced worldwide (Pampilio, 2020).

Influence of clinical teaching strategies on student performance

The researcher was to assess the clinical teaching strategies used and their influence on student clinical performance. The study findings showed demonstration method as most commonly used teaching strategy with (93%) (n=149) response rate. It implies that it is the preferred strategy in clinical teaching in Kenyan Universities. Qualitative data findings echoed the same where 100% of respondents reported having used demonstration teaching strategy in their clinical instruction. These findings are supported by Ismail (2018) study (Egypt) where findings showed demonstration teaching strategy as an effective tool enhancing development of practical skills in student. The findings are also supported by Mwatsahu (2015) Kenyan study that revealed demonstration teaching strategy was a common instruction method in nursing practice in Kenya. In conclusion, other innovative

teaching strategies should be encouraged in all nursing training institutions in Kenya to improve learning and patient care.

Qualitative study findings revealed problem – based strategy clinical conferencing and clinical portfolios were shown to be less preferred instruction strategies in Kenyan Universities as shown by respondents' response rate of 27.5%, 35.5% and 23.8% respectively. Clinical Instructors gave reasons such as heavy workload and shortage of human resources. Quantitative study findings echoed a similar gap that only 27.5% students experience problem solving strategy during the clinical placements. Finding revealed the students who did not experienced problem- based learning strategy performed better compared to those who did experience it. The finding was revealed by Chi square test analysis findings. However, Dag et al. (2019) Turkey, results supported the study findings in that, it found out some of the challenges facing nurse educators were heavy workload and high numbers of students in clinical environment. A study by Moradi & Taghadosi (2016) findings showed problem-based learning increases critical thinking in nursing students while Mollahadi et al. (2018) Iran, results showed portfolio teaching strategy as a very effective tool in mentoring nursing students in that it helps in development of critical and creative thinking skills needed in nursing profession. The present study findings are supported by Mosol et al. (2016) Kenyan study that showed reluctance of students and instructors to engage in self-reflection activities.

In conclusion both qualitative and quantitative data findings supported effectiveness of demonstration and clinical conferences teaching strategies with 100% and 80% response rate respectively. Problem- based strategy and clinical portfolios were shown less preferred in Kenyan universities with 20% and 10% response rate respectively. Clinical instructors should adopt problem-based learning and portfolios in clinical teaching for good results in clinical assessments and nursing practice.

Influence of clinical assessment strategies on student performance

The study sought to evaluate the nursing clinical assessment tools and their influence on BScN students' clinical performance. This was done through self- administered questionnaire and interview guide. Quantitative data findings showed 87.5% had logbooks while twenty (12.5%) respondents had no log books; One hundred fourteen (71%) respondents had procedure manuals while forty-six (28.7%) respondents had no procedure manuals. Hundred and thirty (81%) respondents had no training files while 19% had them. Sixty-four (40%) had no training objectives. Majority of the respondents had the procedure manuals and logbooks but very few had training and files and objectives.

This implies a gap in clinical learning to find third year BScN students on clinical placement without the necessary learning tools. Training objectives guide students in performing procedures; logbook must be signed by the nursing staff after student develops different nursing skills while procedure manual guides students on how to perform nursing procedures. All necessary learning and assessment tools are provided to all nursing students by the NCK within the first month of admission to the learning institution. This gap may indicate laxity on the part of the students. The fact that some students had all the clinical learning and assessment tools may suggest lack of commitment in learning as evidenced by Wu et al. (2014)

The clinical instructors need to put systems in place to ensure students make use of their clinical learning and assessment tools to bridge the theory- practice gap and development competencies as noted by Jamshidi et al. (2016). A study by Wu et al. (2014) findings revealed there was need to establish assessment tools for clinical instruction that meet the required level of reliability and validity. Qualitative data findings were slightly different in that 60% of the respondents (clinical instructors) stated the BScN student clinical

assessment tools needed review to be able to measure clinical competencies. Only 40% of the respondents found the clinical nursing assessment tools measuring knowledge, skills and attitude. The qualitative data findings relate to Rafiee et al. (2014) on effectiveness of BScN student clinical assessment tool where findings of the study showed inappropriate assessment tools were used to measure student competencies. The Nursing Council of Kenya embarked on the process of reviewing the Kenyan nursing learning and assessment tools, scopes of practice for different cadres of nursing in 2017, a process that is on-going to date.

In conclusion the study findings revealed not all nursing students were having learning and assessment tools in the clinical area. Clinical instructors felt the tools needed to be reviewed to measure clinical competencies. It is the responsibility of students to make use of the tools provided for classroom and clinical training while the clinical faculty has a responsibility to ensure availability of the required tools to the students.

Influence of role modeling strategy on student performance

The study sought to determine respondents' perception of role modeling and how role modeling influenced student clinical performance. Quantitative data findings revealed there was role modeling in clinical learning with 78.1% (n=125) response rate while qualitative data supported the findings with (100%) response rate. Two (20%) denied there was role modeling in the clinical practice. Those who gave contrary opinion pointed at shortage of clinical nurses and staff burnouts as reasons for negative role modeling. Pertaining negative role modeling Jack et al. (2017) showed students who were exposed to this kind of negative role models had a choice to make the kind of nurses they wished to become. Therefore, it was a learning opportunity for the student nurses. The same study concluded that role modeling was an effective strategy supporting learning.

Bearman and Molloy (2018) explained a role model as an open person who is ready to guide nursing students professionally while Perry, (2009) looked at exemplar nurses as good role models in clinical teaching. Qualitative data findings (100%) respondents acknowledged role modeling as an effective strategy and once applied in clinical area helps nursing students develop clinical knowledge, positive attitude and practical skills. The findings relate to a study by Baldwin et al. (2014) on role modeling in undergraduate nursing education as effective teaching strategy. Findings of the current study differ with earlier findings by Nyagena et al. (2011) Kenya, where findings revealed poor supervision and negative role modeling. From quantitative data clinical instructor personality of openness was found to influence student performance most.

In conclusion both quantitative and qualitative study findings showed presence of role modeling in clinical nursing environment in Kenyan health facilities. However, qualitative rating of role modeling 10% and 15% was found to be very low signaling a gap. This is an area that touches on competence in nursing practice and Nurse instructor capacity building is recommended (Buvumbwe & Mtshali, 2018).

Student performance on the first clinical assessment

Student report was assessed through self-report. Findings revealed students performed well in their first clinical assessment. Good performance meant the student attained scores 70 marks and above. One hundred and thirty-four (134) students attained good assessment score which is 84% while twenty-six attained (26) 16% fail performance marks below 70 marks, the set pass mark for clinical assessments in the universities. Unsuccessful students were expected to re-take the assessment to obtain the required results. The findings are supported by Kenya- register for national nursing examination – wiki procedure (2018) that students who do not meet the required pass marks must re-take the assessment before

proceeding to the nest stage of training. In conclusion majority of the respondents attained the required marks in the clinical assessment. According Dube and Mlotshwa (2018) students' good performance scores were attributed to helpful correspondence between students and nurse educators.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMENDATIONS

5.1 Introduction

This chapter presents the summary of the study findings guided by the objectives. It contains conclusions and study recommendations from the findings and future directions.

5.2 Summary

The study aimed at assessing the influence of clinical nurse instructor practices on clinical performance among BScN students in Kenya. Study objectives were to assess the influence of clinical teaching strategies, clinical assessment strategies and role modeling on BScN student's clinical performance. The study employed descriptive cross- sectional survey designs were five universities were sampled. Sample size comprised of 160 BScN students and 10 clinical instructors. Study findings were presented in tables, charts and percentages. The findings are to inform the policy makers in nursing, MOH, Teaching and practice health institutions on measures to put in place to ensure production of competent and caring BSc Nurses. Summary of findings was done based on the study objectives.

Objective one: Influence of clinical teaching strategies on BScN student clinical performance

Findings showed demonstration teaching method was the main teaching strategy used in nursing clinical placements in Kenya. Other innovative strategies such as problem – based teaching, conferences and portfolios were practiced but less preferred in clinical training of BScN students in Kenya. Chi square test analysis findings revealed problem- solving strategy statistically significantly influenced student assessment scores. Multiple regression analysis revealed institution, clinical conferences and portfolios predicted student assessment scores.

Objective two: Influence of clinical assessment strategies on BScN student clinical performance

Clinical assessment documents used in clinical learning and assessment were identified as procedure manuals, student logbook, training file and training objectives. Quantitative data findings showed clinical assessment documents influenced student scores and the relationship was significant while qualitative data findings showed procedure manual and student training file needed review to measure clinical competencies.

Objective three: Influence of role modeling on BSCN students' clinical performance

Students experienced role modeling in the clinical practice and the most clinical instructor personality trait that influences clinical learning was openness with students. Chi square analysis showed relationship between role modeling and performance scores was not statistically significant. Both students and clinical instructors acknowledged presence of role models on the clinical area.

First clinical assessment scores

Study findings on first clinical assessment showed good performance scores 84% and fail performance 16%. The results were encouraging taking into consideration these were scores of the first clinical assessment in clinical setting. Good performance encourages students to work hard. Fail performance meant re-take of the assessment.

5.3 Conclusion

Study findings showed demonstration, problem-based learning, clinical conferencing and clinical portfolio contributed to student clinical performance with demonstration being the most preferred teaching strategy in Kenyan universities. It was concluded from findings that BScN students can benefit or perform better if clinical nurse instructors use innovative

and transformative clinical teaching strategies such as clinical conferences, portfolios and problem- based teaching.

The study found students in the same class did not have all the required learning and assessment documents provided by the academic institutions and nursing regulatory body -NCK. This is a gap that needs to be urgently addressed to improve clinical practice. Students have a responsibility to use learning and assessment documents in the clinical setting.

The study found clinical assessment documents influenced student clinical performance and development of clinical competencies. Majority of the students experienced role modeling and mentorship in the clinical area while clinical instructors reported there was some role modeling in the clinical setting. The study concluded there was evidence of role modeling in nursing training in Kenyan health facilities and there is room for improvement through updating professional skills.

Study found gaps in utility of learning and assessment documents and role modeling. In spite of good assessment scores these identified gaps may have led to BScN students graduating from universities not equipped with clinical skills.

5.4 Recommendations

5.4.1 Recommendations on Study findings

The study revealed nurse instructor practices (teaching strategies, assessment strategies and role modeling) influenced BScN students' clinical performance.

Objective one: Influence of clinical teaching strategies on student performance

The study recommends Kenyan Universities to ensure clinical nurse instructors use innovative clinical teaching strategies such as clinical conferencing, problem solving techniques and clinical portfolios to impart creativity and critical thinking skills in BScN students. This will make students confident and ready for practice in these rapidly changing health care settings

Objective two: Influence of clinical assessment strategies on student performance

Findings showed students in the same year of study did not have all the learning and assessment documents prescribed for clinical learning. The study recommends clinical nurse instructors to ensure availability and utility of student clinical learning and assessment documents. The study recommends NCK to evaluate BScN students' learning and assessment tools used in clinical practice. Clinical instructors to ensure availability and use of learning and assessment documents by students. Students to take the responsibility of using learning and assessment documents seriously in clinical environment to improve their clinical practice. These measures could combat the initial problem that prompted this study- BSc Nurses deficient in clinical skills needed for safe patient care

Objective three: Influence of role modeling on student performance

The study recommends role modeling and mentorship programs to be organized for clinical instructors and clinical nurses for capacity building because these are the frontline professionals in the clinical area who impact heavily on student learning. This would improve mentorship and preceptor ship in the clinical environment. This is a responsibility of academic and health institutions.

5.4.2 Recommendation for further research

The study accomplished its objectives and findings can be generalized to other Universities offering BScN programs. The findings showed strong association between clinical nursing practices and clinical performance among BScN students. Findings showed good students' clinical performance scores and therefore the study recommends further research

1. Students' factors that may influence performance in clinical learning.
2. Clinical nurse instructors' competence.

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APPENDICES

Appendix 1: Questionnaire

Introduction:

i. My name is Julian Nthule Kavili. I am a student at Kenya Methodist University carrying out a research on assessment of the influence of clinical nurse instructor practices on clinical performance among BScN students in Kenyan universities. Attached is a letter of introduction from KeMU and NACOSTI allowing me to collect data from BScN Students and clinical nurse instructors.

ii. A consent letter is attached. Kindly read it, understand and voluntarily sign it in order to participate in the study.

All information collected from this questionnaire will be held in confidence and used only for the purpose of the study.

Sign_____ Date_____

This questionnaire will be filled by BScN 3rd year students (Direct entry) only.

Tick in the box provided

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Q1: What is your age? Mark your category.

20 – 25 years ☐

26 –30 years ☐

31 - 35 years ☐

Above 35 years ☐

Q2. Gender: Male ☐ Female ☐

Q3. Which year of your study? ☐

Q4. Kindly indicate your **first assessment** grade in marks _____

SECTION B: THREE SUB SECTIONS IN CLINICAL TEACHING

i. <u>Teaching strategies</u>

Q5. Did you experience demonstration method during your clinical placements?

Yes ☐ No ☐

Q6. Did you experience problem solving method (assignments) in your clinical placements?

Yes ☐ No ☐

Q7. Did your experience clinical conferences in your clinical placements?

Yes ☐ No ☐

Q8. Did you experience clinical Portfolios in the clinical placements?

Yes ☐ No ☐

If your answer is Yes, answer question No 9.

Q9. How helpful are clinical conferences & portfolios strategies of teaching in developing competencies (skills) in clinical procedures?

Very helpful ☐ Helpful ☐ Not helpful ☐ I don't know ☐

ii. <u>Clinical assessment tools</u>

Q10. Did you have a student training file in the clinical area?

Yes ☐ No ☐

If the answer is No,

explain_____

Q11. Did you have student Log book in your clinical placement?

Yes ☐ No ☐

If the answer is No, explain_____

Q12. Did you have a nursing procedure manual in the clinical area?

Yes ☐ No ☐

If the answer is No, explain_____

Q13. Did you have training objectives in your clinical placement?

Yes ☐ No ☐

If the answer is No, explain_____

Q14. Do you think these tools measure knowledge, attitudes and Practical skills (KAP)?

Yes ☐ No ☐

If the answer is No, explain_____

Q15. Does student assessment in the clinical area influence your clinical performance?

Yes ☐ No ☐ To some extent ☐

If answer is **yes** explain

_____

_____

Q16. Were clinical instructors available in the clinical area for support supervision?

Yes ☐ No ☐

iii. Role modeling

Q17. (a) In your view, did you experience role modeling in the clinical area?

Yes ☐ No ☐

(b) Among the following Clinical instructor personality traits, which one would you say influences learning most?

Openness with students ☐

Dependable & achievement focused ☐

Trusting personality ☐

Q18. Mentorship is a powerful clinical teaching strategy. Did you have mentors in the clinical area?

Yes ☐ No ☐

iv: Faculty supervision

Q19. Were clinical nurse instructors available in the clinical area for teaching and supervision? ☐ ☐

Yes No

Thank you for taking your time to participate in the study.

Appendix 2: Interview Guide

Dear Respondent,

My name is Julian Nthule Kavili. I am a student at Kenya Methodist University carrying out a research on assessment the influence of clinical nurse instructor practices on clinical performance among BScN students in Kenyan universities. Attached is a letter of introduction from KeMU and NACOSTI allowing me to collect data from BScN students and clinical instructors. A consent letter is attached. Kindly read it, understand and voluntarily sign it in order to participate in the study.

All information collected from this interview will be held in confidence and used only for the purpose of the study.

Sign_____ Date_____

This interview will be carried out on clinical nurse instructors teaching and supervising BScN students.

Q1: What is your age?

Q2. Gender M/F

Q3. How long have you been in clinical teaching of BScN students?

Q4. What influence do clinical teaching methods have on BScN student clinical performance?

Q5. How do clinical assessment tools influence BScN student clinical performance?

Q6. Do we have role models in nursing clinical area? Explain.

Q7. How does role modeling influence BScN student clinical performance?

Thank you for accepting to participate in the study.

Appendix 3: Consent Letter

Julian Nthule Kavili

P.O.BOX 62676-00200

NAIROBI.

Tel. 0721783477

Email: jnthule@gmail.com

June, 2019.

Dear respondent,

My name is Julian Kavili (registration Number MSN- 3-3195-3/2016) a Master's student in Nursing education at Kenya Methodist University. I am currently conducting a research on assessment of the influence of clinical nurse instructor practices on clinical performance among BScN students in Kenyan Universities.

Kindly assist me in answering the questionnaire. The information you give will be handled with confidentiality and used for the purpose of the study only.

Thank you in advance for your cooperation.

Yours faithfully,

Julian Kavili.

Principal Researcher.

Respondent:

I voluntarily accept to participate in this study having sought clarification and completely understood the purpose of the study. I understand that I have the right to pull out of the study at any level without necessarily giving reasons for my decision.

Respondent's Signature_____ Date_____

Appendix 4: Krejcie & Morgan Table

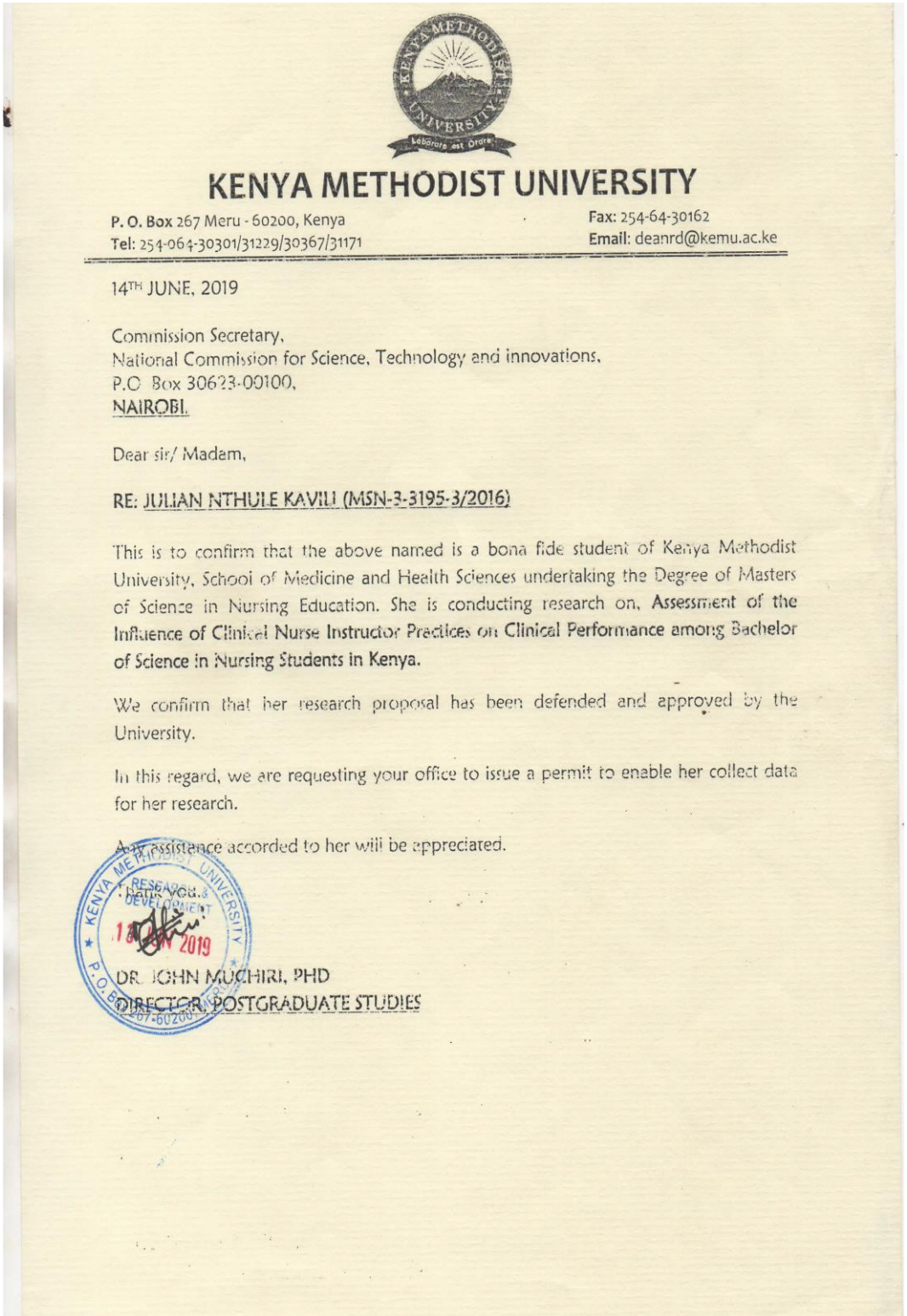
Table 3.1

Table for Determining Sample Size of a Known Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

Appendix 5: Kenya Methodist University Ethical Committee Letter



KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya
Tel: 254-064-30301/31229/30367/31171
Fax: 254-64-30162
Email: deanrd@kemu.ac.ke

14TH JUNE, 2019

Commission Secretary,
National Commission for Science, Technology and innovations,
P.O Box 30623-00100,
NAIROBI.

Dear sir/ Madam,

RE: JULIAN NTHULE KAVILI (MSN-3-3195-3/2016)

This is to confirm that the above named is a bona fide student of Kenya Methodist University, School of Medicine and Health Sciences undertaking the Degree of Masters of Science in Nursing Education. She is conducting research on, **Assessment of the Influence of Clinical Nurse Instructor Practices on Clinical Performance among Bachelor of Science in Nursing Students in Kenya.**

We confirm that her research proposal has been defended and approved by the University.

In this regard, we are requesting your office to issue a permit to enable her collect data for her research.

Any assistance accorded to her will be appreciated.

Thank You.

RESEARCH & DEVELOPMENT
19 JUN 2019

DR. JOHN MUCHIRI, PHD
DIRECTOR, POSTGRADUATE STUDIES

Appendix 6: Nairobi City County Letter

NAIROBI CITY COUNTY

TELEGRAM "SCHOOLING"
TELEPHONE: 2221166/224281
EXT: 2426 /2590

CITY HALL ANNEXE:
P. O. BOX 30298 GPO- 00100.
NAIROBI, KENYA

EDUCATION, YOUTH AFFAIRS & SOCIAL SERVICES SECTOR
EDUCATION DEPARTMENT

Ref. GL/NC/141/VOL VI/206

1st July, , 2019

Julian Nthule Kavili
Kenya Methodist University
P.O.Box 267 – 60200
MERU

RE: RESEARCH AUTHORIZATION

Following your application to carry out Research and Subsequent approval by National Commission for Science, Technology and Innovation vide letter Ref: NACOSTI/P/19/5953631242 dated 25th June, 2019;

I am pleased to inform you that authority has been granted to you to carry out research on "*Assessment of the influence of clinical nurse instructor practices on clinical performance among Bachelor of Science in nursing students in Nairobi County, Kenya*".

On conclusion of the study, you are expected to submit a copy of the research findings to the undersigned:

ROMANS NDUNG'U
ASSISTANT DIRECTOR DEVELOPMENT

Copy to: Chief Officer – Education, Social Services & Gender
Director City Education

Appendix 7: Ministry of Education- Nakuru

THE PRESIDENCY
MINISTRY OF INTERIOR AND
CO-ORDINATION OF NATIONAL GOVERNMENT

Telegram: "DISTRICTER" Nakuru
Telephone: Nakuru 051-2212515
When replying please quote

COUNTY COMMISSIONER
NAKURU COUNTY
P.O. BOX 81
NAKURU.

Ref No. CC. SR.EDU 12/1/2/VOL.V/3

4th July, 2019

Deputy County Commissioner
NJORO

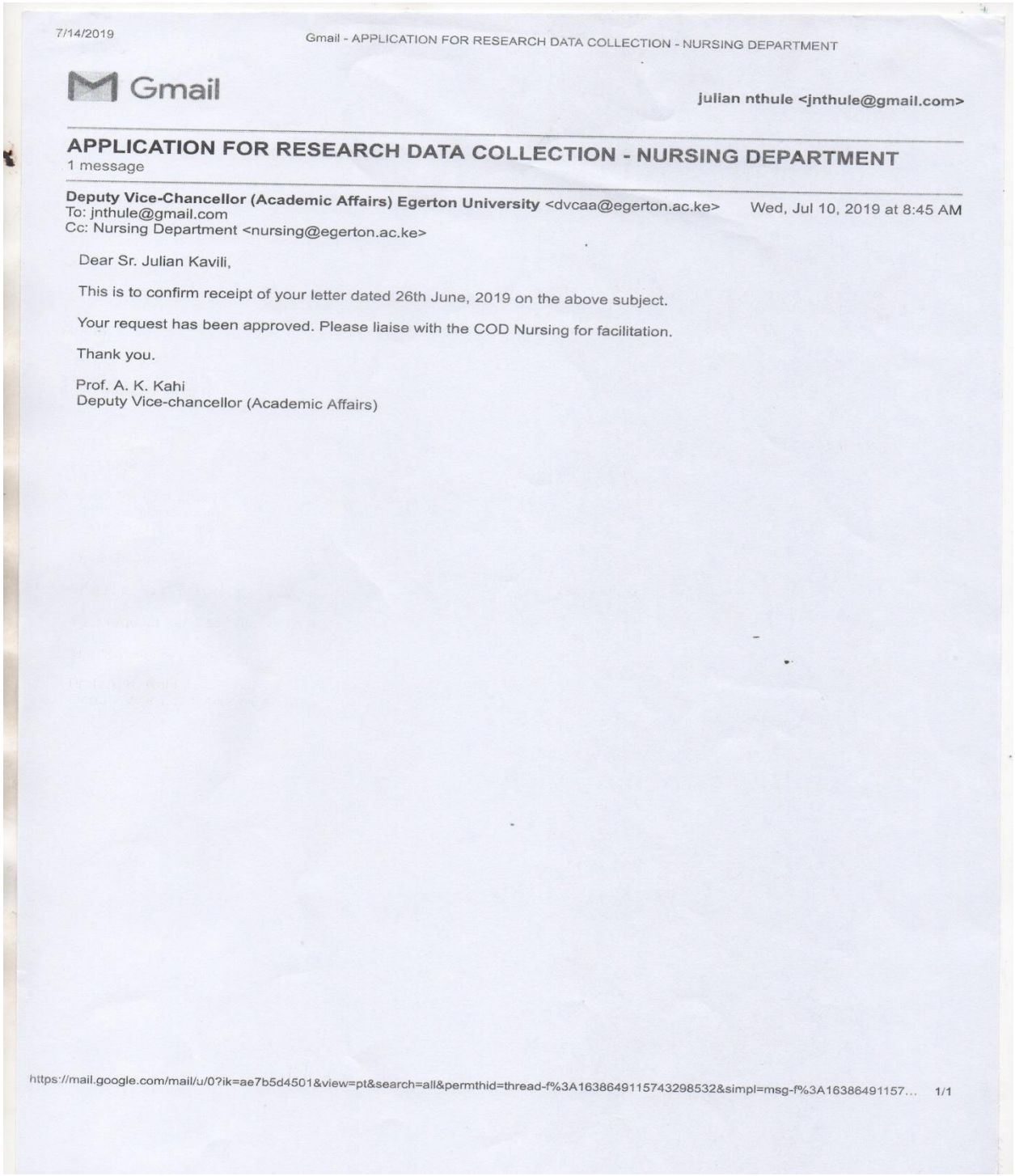
RE:- RESEARCH AUTHORIZATION – JULIAN NTHULE KAVILI

The above named student from Kenya Methodist University has been authorized to carry out research on **"Assessment of the influence of clinical nurse instructor practices on clinical performance among Bachelor of Science in nursing students in Kenya"** a case study of Nakuru County for a period ending 24th June, 2020

Please accord her all the necessary support to facilitate the success of her research.

J. B. KICHWEN
FOR COUNTY COMMISSIONER
NAKURU COUNTY

Appendix 8: Deputy Vice Chancellor -Egerton University



7/14/2019 Gmail - APPLICATION FOR RESEARCH DATA COLLECTION - NURSING DEPARTMENT

Gmail

julian nthule <jnthule@gmail.com>

APPLICATION FOR RESEARCH DATA COLLECTION - NURSING DEPARTMENT

1 message

Deputy Vice-Chancellor (Academic Affairs) Egerton University <dvcaa@egerton.ac.ke> Wed, Jul 10, 2019 at 8:45 AM
To: jnthule@gmail.com
Cc: Nursing Department <nursing@egerton.ac.ke>

Dear Sr. Julian Kavili,

This is to confirm receipt of your letter dated 26th June, 2019 on the above subject.

Your request has been approved. Please liaise with the COD Nursing for facilitation.

Thank you.

Prof. A. K. Kahi
Deputy Vice-chancellor (Academic Affairs)

https://mail.google.com/mail/u/0?ik=ae7b5d4501&view=pt&search=all&permthid=thread-f%3A1638649115743298532&simpl=msg-f%3A16386491157... 1/1

Appendix 9: County Government of Nakuru

THE PRESIDENCY
MINISTRY OF INTERIOR AND
CO-ORDINATION OF NATIONAL GOVERNMENT

Telegram: "DISTRICTER" Nakuru
Telephone: Nakuru 051-2212515
When replying please quote

COUNTY COMMISSIONER
NAKURU COUNTY
P.O. BOX 81
NAKURU.

Ref No. CC. SR.EDU 12/1/2/VOL.V/3

4th July, 2019

Deputy County Commissioner
NJORO

RE:- RESEARCH AUTHORIZATION – JULIAN NTHULE KAVILI

The above named student from Kenya Methodist University has been authorized to carry out research on **"Assessment of the influence of clinical nurse instructor practices on clinical performance among Bachelor of Science in nursing students in Kenya"** a case study of Nakuru County for a period ending 24th June, 2020

Please accord her all the necessary support to facilitate the success of her research.

J. B. KICHWEN
FOR COUNTY COMMISSIONER
NAKURU COUNTY

Appendix 10: Jomo Kenyatta university of Agriculture and Technology

JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY
P. O. Box 62000 - 00200, City Square, Nairobi. Tel: +254-67- 5870001- 4, Email:dvc@aa.jkuat.ac.ke
OFFICE OF THE DEPUTY VICE CHANCELLOR (ACADEMIC AFFAIRS)

REF: JKU/2/003/072

11th July 2019

Julian Nthule Kavili
Kenya Methodist University
P.O. Box 267 - 60200
MERU

Dear Julian,

RE: APPROVAL TO COLLECT DATA

Your letter on the above subject refers.

On behalf of Jomo Kenyatta University of Agriculture and Technology, I wish to inform you that your request to collect data from undergraduate students at Jomo Kenyatta University of Agriculture & Technology for your undergraduate research project has been granted on condition that the research findings shall be used solely for academic purposes.

Your research topic is and should remain ***"Assessment of the influence of clinical nurse instructor practices on clinical performance among Bachelor of Science in nursing students in Kenya."***

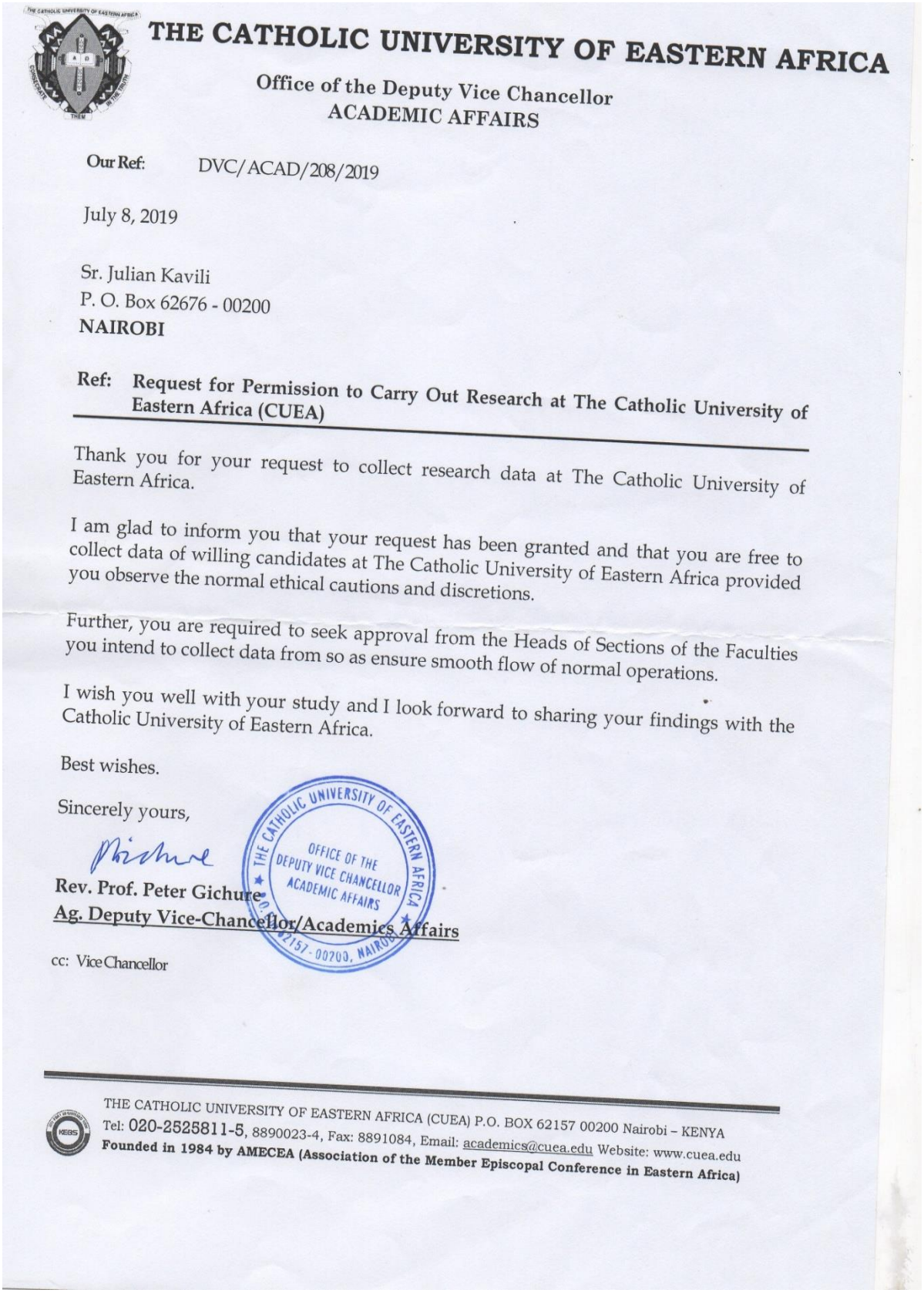
I wish you all the best as you embark on your research.

Yours faithfully

PROF. ROBERT KINYUA, PhD.
AG. DEPUTY VICE CHANCELLOR (ACADEMIC AFFAIRS)

RK/ja

Appendix 11: Catholic University of Eastern Africa



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

Office of the Deputy Vice Chancellor
ACADEMIC AFFAIRS

Our Ref: DVC/ACAD/208/2019

July 8, 2019

Sr. Julian Kavili
P. O. Box 62676 - 00200
NAIROBI

Ref: Request for Permission to Carry Out Research at The Catholic University of Eastern Africa (CUEA)

Thank you for your request to collect research data at The Catholic University of Eastern Africa.

I am glad to inform you that your request has been granted and that you are free to collect data of willing candidates at The Catholic University of Eastern Africa provided you observe the normal ethical cautions and discretions.

Further, you are required to seek approval from the Heads of Sections of the Faculties you intend to collect data from so as ensure smooth flow of normal operations.

I wish you well with your study and I look forward to sharing your findings with the Catholic University of Eastern Africa.

Best wishes.

Sincerely yours,

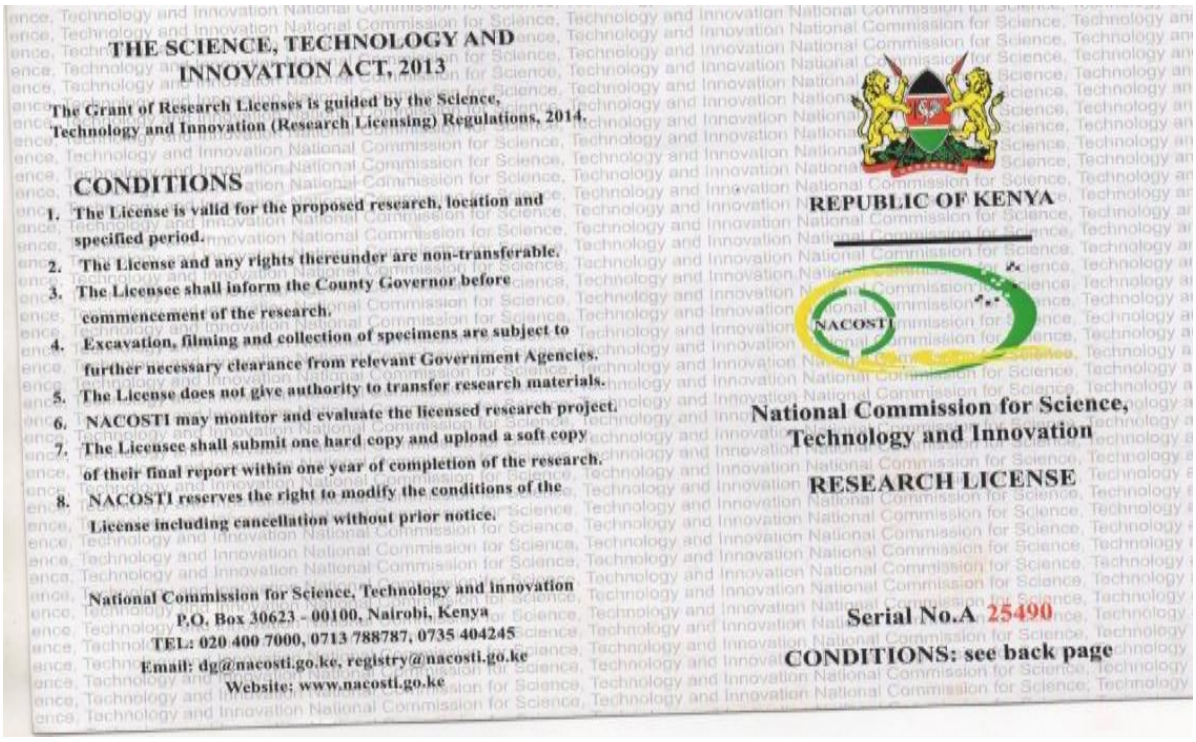
THE CATHOLIC UNIVERSITY OF EASTERN AFRICA
OFFICE OF THE DEPUTY VICE CHANCELLOR ACADEMIC AFFAIRS
P.O. BOX 62157 - 00200, NAIROBI

Rev. Prof. Peter Gichure
Ag. Deputy Vice-Chancellor/Academics Affairs

cc: Vice Chancellor

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA) P.O. BOX 62157 00200 Nairobi – KENYA
Tel: 020-2525811-5, 8890023-4, Fax: 8891084, Email: academics@cuea.edu Website: www.cuea.edu
Founded in 1984 by AMECEA (Association of the Member Episcopal Conference in Eastern Africa)

Appendix 12: National Commission for Science, Technology and Innovation



THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and Innovation
P.O. Box 30623 - 00100, Nairobi, Kenya
TEL: 020 400 7000, 0713 788787, 0735 404245
Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke

REPUBLIC OF KENYA

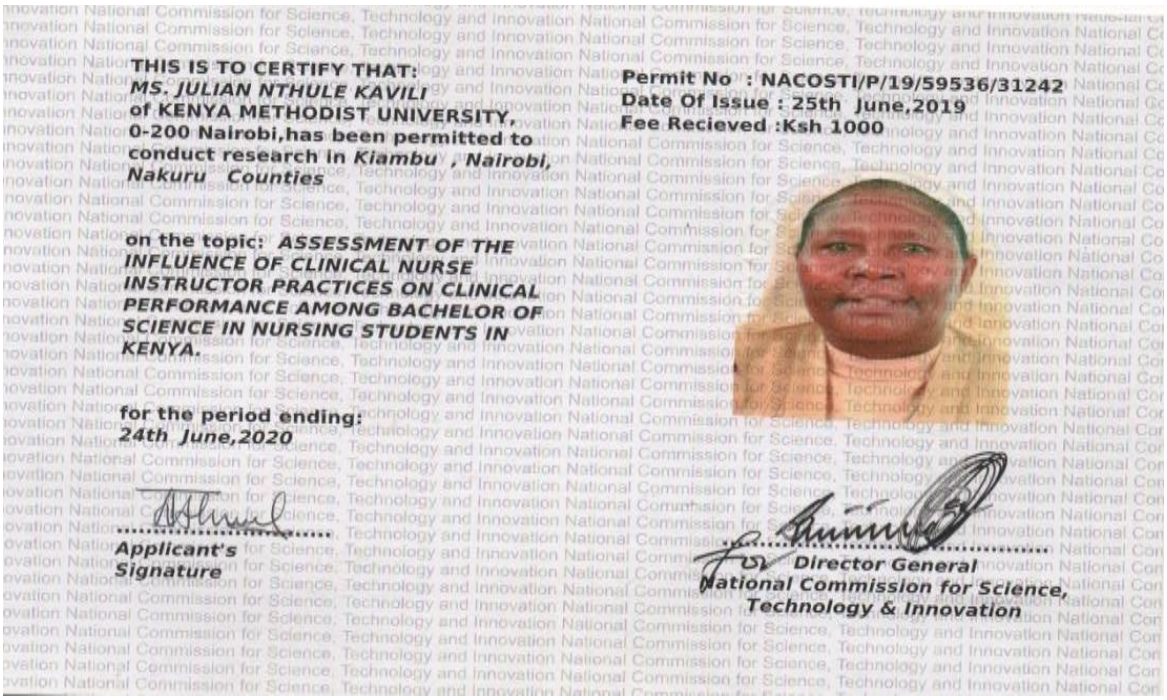
NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH LICENSE

Serial No.A 25490

CONDITIONS: see back page



THIS IS TO CERTIFY THAT:
MS. JULIAN NTHULE KAVILI
of KENYA METHODIST UNIVERSITY, 0-200 Nairobi,has been permitted to conduct research in Kiambu , Nairobi, Nakuru Counties

on the topic: ASSESSMENT OF THE INFLUENCE OF CLINICAL NURSE INSTRUCTOR PRACTICES ON CLINICAL PERFORMANCE AMONG BACHELOR OF SCIENCE IN NURSING STUDENTS IN KENYA.

for the period ending:
24th June,2020

Permit No : NACOSTI/P/19/59536/31242
Date Of Issue : 25th June,2019
Fee Recieved :Ksh 1000

.....
Applicant's Signature

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

Appendix 13: Day Star University Letter

DAYSTAR UNIVERSITY
Excellence • Transformation • Servant-Leadership

Athi River Campus
P. O. Box 17 - 90145
Daystar University, Kenya
Tel: 045 6622601 (2) (3)
Fax: 045 6622420
E-mail: admissions@daystar.ac.ke

Nairobi Campus
P. O. Box 44400 - 00100,
Nairobi, Kenya
Tel: 020 2723 002 (3) (4)
Fax: 020 2728338
E-mail: admissions@daystar.ac.ke

www.daystar.ac.ke

Our Ref. DU-CRPCPB/09/07/ 2019 /00010

Julian Nthule Kavili

Dear Julian,

RE: ASSESSMENT OF THE INFLUENCE OF CLINICAL NURSE INSTRUCTOR PRACTICES ON CLINICAL PERFORMANCE AMONG BACHELOR OF SCIENCE IN NURSING STUDENTS IN KENYA

Reference is made to your request to conduct research at Daystar University dated 25-06-2019. Having examined your research proposal and having satisfactorily established the purpose of you research, and upon noting that all relevant permission has been duly considered, I wish to now grant you the permission to carry the said study. This permission is granted for a period of one year from the date of this letter.

All the best in your survey and eventual completion of class project

Bernard Boyo, PhD
Ag. Deputy Vice-Chancellor, Academic Affairs
Daystar University
09/7/2019

"...until the day dawn and the ***daystar*** *arise in your hearts"*
2 Peter 1.19 KJV

Appendix 14: Mount Kenya University Ethical Committee Letter

Mount Kenya University

OFFICE OF THE VICE-CHANCELLOR

OUR REF: MKU/GEN/11-19/160

18th July, 2019

Sr. Julian Nthule Kavili
P O Box 62676 - 00200
NAIROBI

Dear Sr. Julian,

RE: REQUEST FOR PERMISSION TO COLLECT DATA

The above matter refers.

Following consultation, I am pleased to grant you permission to collect data for your Master's Degree Research Thesis titled *"Assessment of the Influence of Clinical Nurse Instructor Practices on Clinical Performance among Bachelor of Science in Nursing Students in Kenya"*.

By a copy of this letter, the Director, Research and Innovation is kindly requested to accord you the necessary assistance.

Yours faithfully

Mount Kenya University VICE CHANCELLOR P.O. Box 342 - 01000, Thika (K)

Prof. Stanley W. Waudo, Ph.D
VICE-CHANCELLOR

Copy: Deputy Vice-Chancellor, Academic and Research Affairs
Director, Research and Innovation

....SWW/mcm

Main Campus, General Kago Road, P.O. Box 342-01000 Thika. Tel: +254 67 2820 000,
Cell: +254 720 790 796, 0709 153 000
Email:info@mku.ac.ke, Web: www.mku.ac.ke
Chartered and ISO 9001 : 2015 Certified Institution.
Unlocking Infinite Possibilities

Appendix 15: Nairobi City County- Mbagathi Hospital letter.

NAIROBI CITY COUNTY

Tel: 2724712, 2725791, 0721 311 808
Email: mbagathihosp@gmail.com

Mbagathi Hospital
P.O. Box 20725- 00202
Nairobi

COUNTY HEALTH SERVICES

Ref: MDH/RS/1/VOL.1

5th August 2019

Julian Nthule Kavili
KEMU

RE: PRE-TEST AUTHORIZATION

This is in reference to your application for authority to carry out a pre-test on *" Assessment of the influence of clinical nurse instructor practices on clinical performance among BScN nurses in Kenya"*

I am pleased to inform you that your request to undertake the pre-test in the hospital has been granted.

MBAGATHI HOSPITAL
05 AUG 2019
Tel: 0721 311 808
P.O. BOX 20725 - 00202 NAIROBI

Phillip Mibei
For: Chairman – Research Committee
Mbagathi Hospital

Appendix 16: National Commission for Science, Technology and Innovation.

NAIROBI CITY COUNTY
RECEIVED
01 JUL 2019
EDUCATION DEPARTMENT
DISPATCH UNIT
TIME:.....
P. O. Box 30298 - 00100 NAIROBI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/19/59536/31242**

Date: **25th June, 2019.**

Julian Nthule Kavili
Kenya Methodist University
P.O. Box 267- 60200
MERU.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Assessment of the influence of clinical nurse instructor practices on clinical performance among Bachelor of Science in nursing students in Kenya."*** I am pleased to inform you that you have been authorized to undertake research in **Kiambu, Nairobi and Nakuru Counties** for the period ending **24th June, 2020.**

You are advised to report to **the County Commissioners, and the County Directors of Education, Kiambu, Nairobi and Nakuru Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

DR. ROY B. MUGIIRA, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kiambu County.

Approved
27/6/2019

COUNTY COMMISSIONER
NAIROBI COUNTY
P. O. Box 30124-00100, NBI
TEL: 341666

The County Director of Education
Kiambu County.

National Commission for Science, Technology and Innovation is ISO9001:2008 Certified