

**DETERMINANTS OF SATISFACTION WITH TRAINING AND DEVELOPMENT  
OF A TOOL TO MONITOR TEACHING AND LEARNING AT KENYA MEDICAL  
TRAINING COLLEGE**

**BY**

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## **DECLARATION**

“I declare that this Thesis is my original work and that it has not been presented elsewhere for examination, award of a degree or any other award in any University.”

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## **DEDICATION**

I dedicate this thesis to my late husband Prof. Peter Mwaniki Kabanya.

## **ACKNOWLEDGEMENT**

My special thanks go to my supervisors Prof. Anna Karani and Dr. Waithira Mirie of the University of Nairobi for their relentless efforts in guiding me through the long and sometimes lonely journey of this research to the end. The manner in which they did this was extremely professional and with admirable patience. My gratitude is extended to Mr. Lawrence Alaro for his contribution with data management, my colleagues Mr. Patrick Njagi, Miss Loise Mathenge and Mr. Mathew Kivara for their encouragement at the start of this long journey. To you all, I wish to say many thanks and may God bless you.

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## **OPERATIONAL DEFINITIONS**

**Satisfaction** – The pleasure or contentment that is derived from the fulfillment of a desire or need.

**Quality** – It is the totality of features and characteristics of a product or service that bears the ability to satisfy stated or implied needs.

**Quality training** – Degree of excellence in training.

**Curriculum** – The subjects comprising a course of study in a school or college.

**Facility staff** – Are the academic staff that is the Lecturers

**Teaching learning resources** – Lesson plans, classrooms, skills lab, clinical placements.

**Skills lab** – A laboratory where skills are taught and practiced. Clinical simulations are done in a skills lab.

## ABSTRACT

Student satisfaction is an important means of assessing the institution's capacity in meeting the students' learning needs. The degree of student's satisfaction with their educational experience is an important dimension in the assessment of institutional effectiveness. Understanding students' perceptions and satisfaction is important in efforts to enrich the students' learning experiences. The aim of the study was to identify the factors that influenced satisfaction with the training process among final year nursing students and use the identified factors to develop a standard tool for monitoring teaching and learning process in Kenya Medical Training College. This was a descriptive correlational study that examined the relationship between the training institutional factors and the perceived level of satisfaction among the final year nursing students. Quantitative and qualitative data was collected using a self-administered questionnaire, with open and close ended questions, focus group discussions with 8 students, using a focus group discussion guide in order to solicit students' views and opinions and an observation checklist to appraise the teaching/learning environment. Using the content in the questionnaire, a standard tool for monitoring teaching and learning was developed for use in Kenya Medical Training College. The study population was approximately 1600 final year nursing students admitted in March 2013 in 32 campuses of Kenya Medical Training College. Cluster sampling was done after all the 32 campuses were grouped into four regions. One region with seven campuses was randomly sampled through simple random sampling method. All final year nursing students in the sampled cluster who consented to participate in the study were included in the sample population (N=348). Data was collected using a self-administered questionnaire, observation check-list and a focus group discussion guide. Quantitative data was analyzed using Statistical Package for Social Scientists (SPSS) program version 20.0. Chi-square tests were used to test relationships between perceived level of satisfaction and the institutional factors. Qualitative data was coded and organized into themes to allow drawing of conclusions. The results revealed that there was a significant relationship between the overall rating of the quality training ( $r = 0.374$ ), adequacy of training facility ( $r = 0.224$ ), acquisition of relevant knowledge and competence ( $r = 0.193$ ), extra curriculum activities ( $r = 0.215$ ), with students overall satisfaction with teaching and learning process of the nursing programme. The researcher concluded that factors which determined satisfaction in teaching and learning among final year nursing students were curriculum instruction method, the faculty staff, college life experience and clinical placements. She made the following recommendations: to empower students make informed career choice through career guidance in schools, expansion of teaching learning facilities, provision of extra curriculum activities, to promote students enjoyment of college life and use of a standard tool to monitor teaching and learning in Kenya Medical Training college.

## **CHAPTER ONE: INTRODUCTION**

This chapter introduces the background of the study, problem statement, justification of the study, hypothesis, research questions and objectives of the study and finally theoretical and conceptual framework.

### **1.1 BACKGROUND INFORMATION**

Satisfaction is the good feeling that a person has when he/ she achieves targets he/she had set. Jaradean et al, (2012) defined satisfaction as a mental state which comes from realization of expectations. Studies by Elliot and Shin, (2002) and Liegler, (1997) have shown that some factors influence student satisfaction positively. These factors include; student demographic characteristics such as socio-economic status, involvement in the community activities, improved use of college facilities and services, methods of instruction, teaching and learning activities, quality and importance of education.

A study done by Rognstad (2002), found that Norwegian nursing students were inspired to join a career in nursing by need for human contact and need for helping others. They viewed nursing as a vocation and felt compelled to pursue it, and also felt a strong urge to care for people and make a difference. Zysberg and Berry (2006) argued that there is a deep and rewarding joy in caring for people.

Student's satisfaction with teaching and learning has been shown to contribute to mental development, social and spiritual growth, acquisition of necessary skills and attitude (Elliot and Shin 2002). According to Ahmed, Nawaz, and Ahamed (2010), satisfied students were more dedicated and successful in accomplishing their goals. A study done by Najah, *et, al* (2012) revealed that nursing students were satisfied with the nursing curriculum and evaluation method. They also expressed satisfaction that the nursing training was helping

them on how to care for their families, and how to communicate effectively. However, they were less satisfied with college facilities, acquisition of writing skills, critical thinking and problem solving skills.

Studies done on nursing education found a strong relationship between the practical placement setting and overall satisfaction where students who completed their practical placement in the community settings expressed higher levels of satisfaction than their colleagues from hospital wards. (Tiwaken, Caranto and David 2015; Happel 2008). The study by Happel (2008) further revealed that there was an expression of satisfaction by student nurses with their practical experiences where eighty-eight percent of students were happy with their practical placement. They said that they felt appreciated, well supported and orientated by the nursing staff in the practical areas. They were also involved in the care of patients and considered the nursing staff as competent and caring to patients (Happel, (2008). Their relationship with the clinical supervisors increased their motivation to learn more. Ansari (2002a) found out that student's socio-demographic characteristics affected their satisfaction.

## **1.2 STATEMENT OF THE PROBLEM**

A successful college is one which continuously reviews its curriculum, and increases its capacity to satisfy the expectations and needs of students and teaching staff (Rubby, Lawrence and Juan, 2015). This can be done by determining the factors that influence satisfaction of students with teaching and learning process, explore potential for improvement, identify the differences between the views of the teachers and students and measure the perceived satisfaction levels of students.



According to Wheelan and Lisk (2002), nursing curriculum in colleges and Universities should be convenient, flexible and of high quality. However, studies reveal that students pursuing nursing programs have had difficulties in coping with the demands of the programs (Linda et al; 2005 and Rubby, Lawrence and Juan, 2015). Students complain that the programs are too intensive in a short period of time hence leading to difficulty in grasping the enormous amount of information presented.

It has been noted with concern that some of the campuses of Kenya Medical Training College do not have a teaching and learning monitoring process in place. Each campus is expected to develop its monitoring tools which make them differ from one campus to the other. Some campuses have different tools for each department At the Kenya Medical Training College, student nurses only evaluate the teaching at the end of each semester but the tools used do not have provision for determining the satisfaction levels and no literature is available to show that a study investigating the perceived levels of student satisfaction with training has been done. Currently there is no standard tool that can be used to monitor the quality of teaching and learning in Kenya Medical Training College. Understanding student's level of satisfaction at the end of training programme forms a basis of determining the quality of nursing education given as perceived by the students.

### **1.3 JUSTIFICATION FOR THE STUDY**

Although the requirements of nurse training courses are largely fulfilled when the system produces competent nurses and satisfies the standards of the consumers and regulators of health care, students' opinion on their training cannot be ignored if improvements in the quality of training and customer satisfaction are to be achieved (Mimura, 2009). There is consensus that the totality of a student learning experience in an institution is a useful

perspective to adopt in student satisfaction and marketing of the institution (Alos, Caranto and David 2015). Students in Kenya Medical Training College are regarded as valuable customers and hence their satisfaction with services during training is very important if the College is to remain relevant in the training of health care providers.

Student's satisfaction can be an important quality indicator with respect to teaching and learning. Kenya Medical Training Campuses are increasingly realizing that training is a service industry and is putting a lot of emphasis on achieving the expectations of their students whom they regard as their valued customers. Their ambition to expand and attract more students coupled with threat of competition for students from other private and mission institutions force Kenya Medical Training College to think of the role of student satisfaction for their survival.

This study was done to determine the factors that influenced satisfaction of student nurses with the training process. The findings of the study were used to develop a standard tool for monitoring the quality of teaching and learning for continuous improvement. This tool has been recommended for use at Kenya Medical Training College where the researcher is a Lecturer. The use of the tool will ultimately impact positively on nursing training and nursing care delivery to patients and clients since satisfied students are more likely to be successful and committed to achieve their goals than unsatisfied students.

## **1.4 HYPOTHESIS**

### **1.4.1 Null hypothesis**

Satisfaction among student nurses is not positively influenced by the teaching and learning process.

### **1.4.2 Alternate hypothesis**

Satisfaction among student nurses is positively influenced by the teaching and learning process.

## **1.5 RESEARCH QUESTIONS**

- 1) What student -based factors influence the level of satisfaction with nursing training?
- 2) Which are the teacher -based factors that influence the students' level of satisfaction with nursing training?
- 3) What are the learning environmental factors that influence students' level of satisfaction with nursing training?
- 4) What are the contents of a standard tool for continuous monitoring of the quality of teaching and learning?

## **1.6 OBJECTIVES OF THE STUDY**

### **1.6.1 Broad objective**

To identify determinants of satisfaction with the training process among final year nursing students and develop a standard tool for monitoring quality of teaching and learning at Kenya Medical Training College.

### **1.6.2 Specific objectives**

- 1) To identify student factors that influence level of satisfaction with nursing training.
- 2) To determine teacher based factors that influence level of satisfaction among student nurses in training
- 3) To identify learning environmental factors that influence student nurses level of satisfaction with nursing training.
- 4) To develop a tool for monitoring the quality of teaching and learning process.

## **1.7 THEORETICAL FRAMEWORK**

The current study seeks to identify the factors that determine satisfaction of students in teaching and learning. Since the concept under study is satisfaction and influencing factors, the researcher explored literature on satisfaction and what influenced or determined satisfaction and thought that Herzberg's two factor theory can be applied to this study because the principle of satisfaction will be the same.

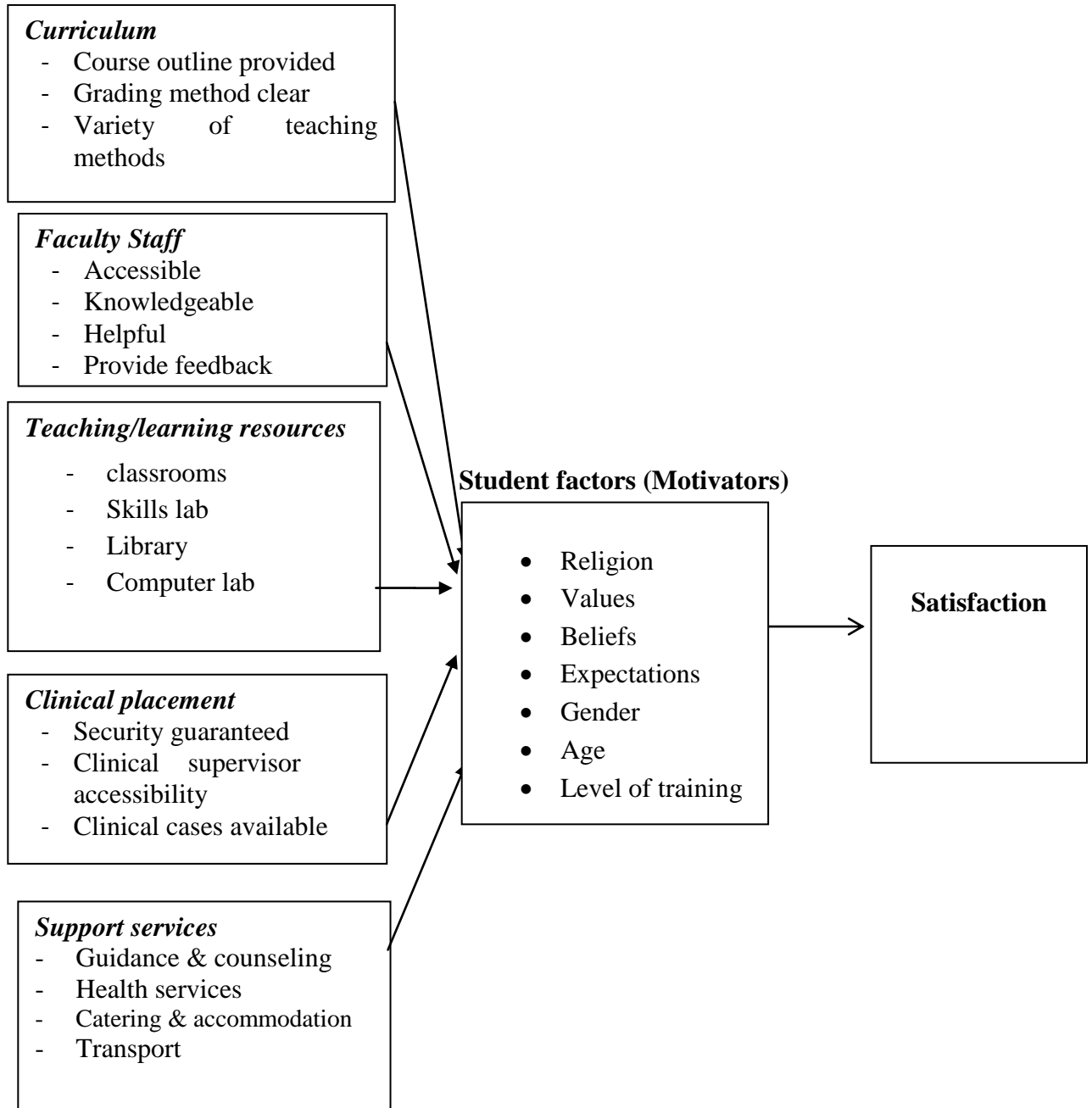
Herzberg's two- factor theory of motivation and job satisfaction (Herzberg et al, 2005) has been used to explain satisfaction in teaching and learning among nursing students. In this theory, one set of factors are those which cause dissatisfaction if absent and if present lead to satisfaction. They are known as hygiene or maintenance factors which in this case are related to teaching and learning and they are concerned with learning environment. These factors are external to the learner and help to prevent dissatisfaction. The other set of factors are those that motivate a person to strive for excellence in performance. The factors are related to job description. These are motivators or growth factors. They are intrinsic and are administered by the individual who is the student in this case.

In applying Herzbergs theory to this study, the hygiene factors are under the control of the academic and clinical staff other than the student. If these factors are not adequately fulfilled, they can cause dissatisfaction to the student. These are institutional factors such as: relevant curriculum, faculty and student interaction, availability of teaching learning resources, a conducive clinical practice environment and availability of other support services ( see conceptual framework next page) while the absence of these factors may cause dissatisfaction to the student, studies have demonstrated that one on one relationship between faculty and student is of utmost importance during the implementation of the teaching/learning process (Kotler and Fox, 1995; Alos, Caranto and David, 2015).

The strength of the motivators affects feelings of satisfaction or no satisfaction (Mullins 2007). Student factors such as; religion, values, beliefs, expectations, gender and level of training,(see conceptual framework page 8) play an important role in motivating the individual student to continuously improve and achieve excellence. This study hypothesizes that there is a relationship between institutional (hygiene) factors, individual student characteristics (motivators) and level of satisfaction with nursing training and that this symbiotic relationship influences the quality of training hence the quality of graduates produced by the training institution. A study by Papastavrou et al (2010) showed positive relationships between student's satisfaction and the quality of nursing care.

## 1.8. C N KABANYA CONCEPTUAL FRAMEWORK ON SATISFACTION WITH TEACHING AND LEARNING PROCESS.

### Institutional factors (Hygiene factors)



## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

This chapter reviewed documented literature on determinants of student satisfaction with training and other related topics. Data bases used for literature search included the following: Emerald, Science direct, EBSCO Host research, Sage, Hinari, OECD, Wiley Blackwell interscience, <http://www.oed.com>, <http://www.adprima.com>, <http://www.st.andrews.ac.uk>, <http://www.scientificjournals.org> and <http://www.med-online.org> among others. Studies have been read to find out what other researchers have said about factors that influence satisfaction with training. The chapter also describes factors that cause dissatisfaction with training and the various teaching/learning methods employed in training of nursing students and development of a monitoring tool.

### **2.2 FACTORS INFLUENCING SATISFACTION**

Student satisfaction is defined as meeting or exceeding the student's expectations of campus reality (Boylston and Jackson, 2008). Nursing education combines both theory and practical knowledge and skills. Learning depends on a good structured work plan by teachers and how the students view and understand this design and structure. When students have a positive attitude towards a certain subject or the subject lecturer, they tend to perform better in that area. Espeland and Indrehus (2003) argued that in nursing curriculum, students' understanding of learning is dependent upon their interpretation of the task requirement, evaluation methods and the learning environment.

The goal of combining the practical and theoretical knowledge is spelt out in the nursing curricular. This is where students learn theory for a block of four to six weeks that is followed by clinical area placements for a period of six months. Studies done by Espeland and Indrehus (2003) and Kyrkjebo et al, (2001) indicated that students were interested with

clinical practice more than the theoretical part of nursing training. Consequently Hadfield (2003) argued that despite the quality of education offered, customer satisfaction is the most critical factor in determining the success of a learning programme.

Cookie (1996) in Espeland and Indrehus (2003) while studying the success of different teaching behaviours in the clinical environment identified four important themes which include: supportive, evaluative, instructive and preparatory behaviour. Supportive theme makes students feel cared for whereas evaluation gives a feedback on students' areas of performance and point out areas that require improvement. The clinical supervisors/preceptors in Kenyan training hospitals support students in the practical learning experiences during clinical placements periods they undertake clinical teaching, student supervision as they give care to patients and clients. The clinical supervisors also assess students' performance and give reports during these periods.

Henderson et al, (2007), Happel (2008) and Tiwaken, Caranto& David (2015) found out that students expressed fulfillment in clinical experience in mental health placement. Factors contributing to the satisfaction were; mentorship from supervisors and other nursing staff, exposure to real practice, understanding the relevance of the mental health in nursing. Students who expressed satisfaction with training enjoyed their clinical placement; they felt appreciated, valued, and well accepted by the nursing team (Happel, 2008). There are many factors that affect nursing training like; limited teaching/learning resources, lack of mastery of the teaching techniques and technology available by the trainers, additional roles in nursing and emerging diseases that require frequent management updates (Bayka, et al., 2005). This has an impact on the quality of nursing care given to patients and clients.

Understanding student's level of satisfaction at the end of training programme forms a basis of determining the quality of nursing education given as perceived by the students.



Research studies done by Lo (2010) and Tiwaken, Caranto & David (2015), on student nurses satisfaction with their training revealed various factors that influence their satisfaction. Demographic factors were found to influence satisfaction. In Ansari's (2002 a) study, the age of the students significantly predicted performance where mature students performed better and showed higher satisfaction than the younger students. On the other hand Bayka et al; (2005) in their study found out that student nurses satisfaction level in their first year of training was high but decreased drastically in second year and in third year the level of satisfaction score increased to the highest level and in the fourth year it again decreased to its lowest. Similar findings were identified by Ansari (2002a) when he found out that while level one students felt that the modules were more interesting, the module teams showed mastery of the subject and that the references materials needed for the module were available in the library. The third year student nurses felt that the module should be more interesting, the lecturers should be knowledgeable and more skilled, and the learning resources should be increased.

Espeland and Indrehus (2003) identified that students were comfortable with the challenging behaviour of the clinical teacher than the nurse supervisor. The clinical practice was more preferred than theoretical part of the nursing programme (Alos, Caranto& David 2015). Some students indicated that they were satisfied with touching people's lives, helping make people's lives better. Practising lifesaving skills was the most satisfying factor and the students anticipated being called to provide life saving measures regularly in their practice (Mimura, 2009). In a research study done by Linda *et, al*, (2005) students showed excitement after applying nursing knowledge and skills directly to patients. They were delighted in seeing improvements in patient's conditions after their interventions.

Some students acknowledged that a career in nursing and being a nurse was their lifelong dream with many expressing their joy of being nursing students who would eventually

become qualified nurses (Linda et al., 2005). These students gained respect from family members and friends after choosing nursing as a career. In Jaradeen et al., (2012) and Lo (2010) studies, students were found to have high satisfaction with nursing curriculum and instructions, availability of teachers and supervisors in their practical areas who were mindful of the students safety in the hospital. The students were also satisfied with their training in that a job was waiting and that they were guaranteed of a job anywhere in the world.

### **2.3 FACTORS THAT CAUSE DISSATISFACTION**

A study done by Linda et al., (2005), revealed that some students had difficulties in coping with the demands of the nursing programme and described it as information over load stemming from a fast paced program that covered too much content in a short duration. They felt it was not possible to cover all the course content and retain the enormous amount of information covered. Some students felt that their course contained too much work. Others felt that they were doing non nursing duties rather than nursing duties which made them conclude that they were not acquiring the required nursing skills and attitudes (Linda et al., 2005). These studies do not show that the students raised concerns with the institution managers for corrective measures to be taken.

Jaradeen et al., (2012) in his study found out that student nurses were not satisfied with the faculty of nursing services for example computer laboratory, classroom, teaching aids and socio-amenities. They also found out that students scored poorly in practical assessments, and in clinical supervision. However they did not try to establish the contributing factors to the students' poor performance in these areas.

### **2.4 COMMON TEACHING METHODS**

Teaching involves the interaction between teachers and learners on a certain subject or content. In education, there are two (2) kinds of strategies used in delivering the content.

Expository/teacher centered learning strategy is where the teacher exposes the content to the learner in a dominating manner and there is little room for student involvement while student centered learning is the strategy where there is active involvement of the learner to the maximum. The two (2) strategies are a continuum depending on the methods of teaching used. According to Russell, Comello and Wright (2007), there are several teaching methods used in nursing training as discussed below;

#### **2.4.1 Lecture**

In this method of teaching, the teacher is involved in passing the information. The teacher does most of the talking with the students mainly listening and writing (Quinns and Hughes, 2007). It is the most commonly used teaching method in adult learning. The practice of using lectures to transmit the culture of a civilization goes back at least to the ancient Greeks and has therefore stood the test of time. The strengths of lecture method of teaching include: a wide content can be covered within a short time, the subject matter is organized in a logical order, the teacher is able to narrate his/her own experience and use the experience to explain certain points. Large number of students can also be reached at a time and it is an efficient method where there are significant resource constraints (Mutema, Kivanguli and Kangethe, 1992; McCarthy, 1992; MOH 2006).

The lecture method has however been associated with a number of shortcomings like learners being passive listeners and some may be lost in the process, some of the learners may not be able to cope with the speed of the lecturer, hence may not follow the subject matter. Lecturing has limited stimulus (teacher's voice), hence attention and amount of information assimilated declines considerably with time. Learning is difficult to gauge because communication is one way and lecturers do not cater for each individual student's needs. Teacher centered lecture has been the most widely used strategy in nursing education in the past (Russell et al., 2007).

### **2.4.2 Demonstration**

Demonstration is a teaching method used to teach psychomotor skills, the lecturer demonstrates the skill with the students observing and then the students perform a return demonstration to gauge the acquisition of skills. The students are first given knowledge to appreciate the purpose for the procedure, and how it is done and they develop the right attitude. According to Dix and Hughes (2005) learning that incorporates psychomotor skills such as bed bath and female catheterization requires the lecturer to demonstrate that skill. This strategy is essential to student learning. This strategy requires adequate conducive environment with adequate equipment, adequate time for demonstration and return demonstrations.

### **2.4.3 Small group discussion**

According to Quinns and Hughes (2007) the term “small group” is difficult to define. Snelgrove (2004) defines small group as a group of three or four students working on a project or dividing of a lecture group into small groups of twenty or more (Yu, 2008). The strength of this method of teaching is that there is active participation of the members of the group. Learners are comfortable in small groups and reaching group decisions is easy. The requirements for this method are that questions and tasks must be allocated to the groups to solve.

### **2.4.4 Case studies**

Case studies are textual descriptions of specific situations real or imagined scenario that provide a basis for discussion in an attempt to solve the issues arising from the discussion. Case studies differ from simulations in that they offer the student a cognitive view of the event rather than an experimental one. They usually entail making decisions about particular courses of actions or alternatively, making judgments about decisions contained within the

case study. The strengths of this method include developing learners' analytical skill, ways of solving problems, allowing learners synthesize gathered information to come up with new knowledge to help solve the underlying problems (Gibbons, 2008). Limitations of this strategy are; insufficient data resulting to biased information. (Adprima 2009 and McCarthy, 1992). Case studies are used in nursing and other humanities training courses to give information on a wide scope of topics in order to solve a problem for example, biological, behavioral science and clinical sciences.

#### **2.4.5 Simulations and role play**

A simulation is an imitation of a certain condition or a real situation. A simulation resembles a real life situation. Simulations are commonly used in skills laboratory where we have simulated patients presenting with different types of diseases that may look like real conditions. Students use simulated patients to act the role of a patient so that they practice certain skills on them for example history taking and counseling (Quinn and Hughes, 2007). Simulation is closely related to role play. Role play is a situation where learners are assigned specific roles to act a certain story or a scenario to make it look real. This is used when teaching certain behaviour attitude and values (McCarthy, 1992).

#### **2.4.6 Field visits**

Field visits are made to certain areas outside the classroom setting. They extend learners knowledge in discipline of study. The objectives of the visit must be clear to the learner before the visit is done. Briefing and debriefing are important if the maximum learning value is to be gained from the visit (McCarthy, 1992 and Adprima, 2009).

#### **2.4.7 Self instructional material and independent study**

In this type of teaching method, the student is an active participant. The material is organized in a systematic logical manner to enable the student learn easily. The learner takes the

initiative with or in absence of the help of the teacher in identifying the learning needs, formulating learning goals and identifying the various learning outcomes (Clarke, 2009). The learner is allowed to study at his or her own pace since he/she is not tied to attend an institution of learning on a regular basis and is responsible for his/her own motivation in the subject being studied (Xiao, 2006). For independent study to be successful, the students must be allowed to choose what they want to study and set learning objectives. Open teacher-student relationship is necessary for its success.

#### **2.4.8 Team teaching**

Team teaching method involves two or more teachers in planning, teaching and evaluating a group of students. This broadens the quality of students' education by exposing them to the competence of more than one teacher. The limitations of team teaching method are time constraints, slowness of the groups' progress and the loss of individual autonomy (Mutema, Kivanguli and Kangethe, 1992). However, this method allows a flexible use of teaching space, makes provision of more attention for individual students, use of different teaching skills by different teachers, avoid time wastage and allow students greater responsibility in managing their own learning (Mutema, Kivanguli and Kangethe, 1992).

#### **2.4.9 Self-directed learning**

Self-Directed Learning is acquisition of knowledge and psychomotor skills as a result of individual learners interest (Gibbons 2008). Students take initiative either on their own, or with the help of others to identify the learning need, plan, implement, monitor and evaluate the learning process (Nolan and Nolan 1997). According to Mc Namara (2008) learners control the learning objectives and the teaching method. Learners are responsible of the learning process and should possess skills of accessing processing and utilization of information for a specific purpose, According to McNamara (2008), learning is mostly

informal and self-directed in nature and is very ideal for the workplace. It has more advantages than traditional forms of classroom instruction for employees. It helps accomplish continuous learning for continuous productivity (McNamara, 2008). In a school of nursing, the student nurses will need to identify their learning needs and establish goals and plan the learning activities to meet the goals

#### **2.4.10 Clinical Teaching**

Clinical teaching is a learning method that involves interaction and communication between a teacher and a learner in a clinical environment for purposes of giving knowledge and training for skills acquisition. The learning process is a human transaction that involves the teacher, learner, in a dynamic interrelationship. For learning to be successful, the teacher must understand and use the following: role of the teacher that incorporates knowledge, attitudes and skills, learners' role, experience and knowledge, external factors that influence learning process and the type of interaction which occur between teacher and learner in the learning environment in clinical setting.

Clinical teaching allows the student to put into practice the theories learnt. Its objective is to equip students with psychomotor skills (Lo, 2010). Clinical teaching in nursing aims at making student nurses to be professional and competent (Sabag, Caranto and David, 2015). Research studies done by (Ali and Phelps, 2009 and Kube, 2010) revealed that several factors are necessary for effective clinical teaching. These are; teacher's knowledge, application of theory and clinical experience, effective feedback, teacher accessibility, active participation of students and privacy when receiving constructive criticisms.

According to Kube (2010), the teaching behaviours perceived to positively influence student learning is when the teacher is approachable, organized, motivates the learner and provides frequent feedback. According to Al- Hamadan et al., (2014) a clinical trainer is a

motivator/role model to students to adjust to clinical settings. Hofler (2008) concurs that successful progression of nursing students into professional nurses is believed to be dependent on the quality of the clinical environment and effective role modeling by the clinical supervisors/trainers.

## **2.5 QUALITY OF TRAINING**

According to Business dictionary.com, Quality is a degree of excellence. It is a combination of both strict and consistent commitment to certain standards that have uniformity of a product to achieve customer satisfaction According to OECD (2008) quality is the totality of features /characteristics of a service or product that achieves intended purpose. The Ministry of Health and general public are increasingly monitoring the quality of training to student nurses in schools of nursing. The Nursing Council of Kenya monitors, evaluates and gives feedback on the quality of nursing education in nursing training institutions. However, the evaluation methods used tend to over-emphasize the passing of examinations and use the examination performance as a yardstick of an institutions' value. These assessments may fail to address the quality of teaching.

The Kenya Medical Training College wants to be recognized as a provider of good quality nursing training. The management understands that competing on the basis of passing exams is not sufficient to ensure the reputation of the college. As such they want to find new ways of demonstrating quality nursing practice. They respond to students demand for quality teaching and want to ensure that the training will give students the skills needed in the society.

An institutional commitment to quality teaching calls for managers and curriculum implementers to identify strengths and weakness and promote good practices that meets teacher /learner expectations (<https://www.st-andrews.ac.uk/staff/teaching/monitoring>). A



quality teaching framework allows the institution to monitor, give support, evaluate and provide feedback on the learning process (Weiping and Shuo 2012). To improve the teaching and learning process the following is required: close monitoring of quality teaching, an institutional framework that is dynamic, a conducive institutional environment and, motivated teachers and students.

## **2.6 PROCESS OF DEVELOPING A MONITORING TOOL**

Developing a monitoring tool is a process and the developer of a tool must determine the type of a tool appropriate for the intended purpose. The content of the tool should be identified and organized into themes that are being monitored to allow a clear flow of information and prevent repetition.

How to questions will be framed and stated should be determined. The developer of the tool should have the following in mind: What the tool is out to measure/monitor, the target group, content and conditions for monitoring, the role of the candidate being monitored and the administration of the tool, recording and reporting (Department of education and training 2008). To assist with validation or moderation the tool should also provide evidence of how validity and reliability have been tested and built into design and use of the tool (National Quality Council, 2009). The quality test of any tool is the capacity for another assessor to use and replicate the assessment without any need for further clarification by the tool developer. It should be a stand-alone tool. That is, the tool should be understood by all users the same way.

### **2.6.1 Delphi Technique**

Delphi technique is one of the processes used in tool development. It provides a scientific methodology that is well suited to issues that require subject matter experts. Taylor Kermode

and Roberts (2007), in their study on reliability and validity of the Delphi technique reported that used judiciously, the method has good reliability and satisfactory validity. The discussions by the panel of experts give them an opportunity to change their minds or include any other items thought to be necessary and also modify their opinions about consensus reached in previous interaction. (Moule and Goodman, 2009). This process is repeated and terminated once a consensus is achieved by the panel of experts. In this study the technique was used to refine the monitoring tool.

### **2.6.2 Validity and reliability of the Monitoring tool**

Validity and reliability are fundamental issues in the development and use of a monitoring tool. When a tool is developed, it is important to establish its reliability and validity before it is put to use (Punch 2006). A tool is considered valid when it measures the right elements that need to be measured. In simple terms validity refers to how well an instrument measures what it is intended to measure. However, several aspects of validity may be considered to determine whether the monitoring tool is valid.

### **2.6.3 Construct validity**

This relates to assessment of suitability of measurement tool to measure the phenomenon being studied. Application of construct validity can be effectively facilitated with the involvement of panel of experts closely familiar with the measure and the phenomenon (Moule and Goodman, 2009).

### **2.6.4 Internal validity**

Internal validity refers to how well the research findings match the reality. It is the extent to which the independent variable can accurately be stated to produce the observed. If the effect

of the dependent variable is only due to the independent variables then internal validity is achieved. This is the degree to which a result can be manipulated.

### **2.6.5 External Validity**

External validity is the extent to which the research findings can be replicated to other environments. (Moule and Goodman, 2009). That is to say the results of the study can be generalized from a sample to a population. An instrument that is externally valid helps obtain population generalizability or a degree to which a sample represents the population.

### **2.6.6 Content validity**

Content validity refers to the appropriateness of the content of an instrument. In other words do the measures (questions or observations) accurately assess what the researcher wants to know?

### **2.6.7 Reliability**

Reliability can be thought of as consistency. Does the instrument consistently measure what it is intended to measure? There are four types of reliability in research: Inter-Rater/Observer Reliability is the degree to which different raters/observers give consistent answers or estimates while test-Retest Reliability is the consistency of a measure evaluated over time. Parallel-Forms Reliability is the reliability of two tests constructed the same way, from the same content. Internal Consistency Reliability is consistency of results across items, often measured with Cronbach's Alpha test (punch, 2006).

## **CHAPTER THREE: METHODOLOGY**

This chapter discussed the research design, study area and study population, sampling technique and sample size. The inclusion and exclusion criteria are outlined and study variables are identified in this section. Research instruments and methods used to test reliability and validity of the tools has been described in this chapter. Recruitment and training of research assistants, data collection procedure and data analysis technique have also been described.

### **3.1 RESEARCH DESIGN**

The study used a correlational design which examined the relationship between the independent and dependent variables identified in the study. The closed ended part of the self-administered questionnaire and observation check list facilitated collection of quantitative data while Focus Group Discussion Guide enabled collection of qualitative data. Research methods can either be quantitative, qualitative or mixed method. The choice of any research method is based on what the research question seeks to study. It is also determined by the type of information that is likely to be obtained. For example, where numerical value can be attached the quantitative method is selected and where people's opinions are likely to be sought then qualitative approach is selected (Punch 2006).

Data collected was both quantitative and qualitative. Quantitative data was collected by use of observational checklists and a self-administered questionnaire while qualitative data was collected during focus group discussions and some open ended questions in the self-administered questionnaire.

### **3.2 STUDY AREA**

This study was conducted at seven campuses of Kenya Medical Training College. These are Nairobi, Thika, Murang'a, Kitui, Nyeri, Meru and Embu. At the time of data collection Kenya Medical Training College had a total of 42 campuses that offered 18 courses at both diploma and certificate levels. The college had a population of 22,000 students. Out of the 42 campuses, 32 of them offered Nursing training at diploma level. The College admits student nurses twice a year and every class admits fifty (50) student nurses per intake thus a 100 students per year except Nairobi which admits sixty (60) per intake thus, One hundred and twenty per year. The campuses that were sampled for the purpose of data collection are described below;

#### **Nairobi Campus:**

KMTC Nairobi campus is situated along Ngong Road next to Kenyatta National Hospital about 4 kilometers from the city Centre. It is the largest campus among the other campuses training students in 17 departments. The campus admits sixty nursing students per intake.

#### **Thika Campus:**

The institution is located in Thika town next to the Thika General Hospital. It has 3 departments that is Nursing, Clinical Medicine and Community Nutrition. It admits fifty nursing students per intake.

#### **Murang'a Campus:**

The institution is located in Murang'a town approximately 500 meters from Murang'a town next to the Murang'a Level 5 Hospital. It has 3 departments namely, nursing, health records and information and clinical medicine.

**Kitui Campus:**

The institution is located next to Kitui level 4 hospital approximately 2 kilometers from Kitui town. It has five departments including nursing, medical laboratory sciences, environmental health science, health record and information and clinical medicine.

**Nyeri Campus**

Nyeri campus is about 2 kilometers from Nyeri town. It borders Nyeri level 5 Hospital to the eastern side. The college has five departments with a student population of 1050. The courses offered in Nyeri are Nursing, Clinical Medicine, Environmental Health Science, Medical Laboratory Science and Medical Imaging Science.

**Meru Campus:**

The institution is off the Meru-Maua road about two kilometers from Meru town. It is next to the Meru General hospital and trains students in four disciplines, namely: Nursing, medical laboratory sciences, medical engineering and clinical medicine.

**Embu Campus:**

The institution is off the Embu-Meru road next to the Embu level 5 Hospital. It has 4 departments with a student population of 840. The campus offers training in nursing, clinical medicine, environmental health science and medical laboratory science. One hundred student nurses are admitted to the campus every year for a diploma in nursing.

**3.3 STUDY POPULATION**

The study population comprised of approximately one thousand six hundred (1600) final year nursing students who were admitted in March 2013 and were pursuing a diploma in nursing training at the various campuses of Kenya Medical Training College. Since the time of

admission this number of students could have grown higher or reduced because of students who are referred behind after failing promotional or final qualifying examinations.

### **3.4 SAMPLING AND SAMPLE SIZE**

The sampling procedure took cognizance of the fact that Kenya Medical Training College had thirty two (32) campuses that trained nursing students at diploma level at the time of data collection. These campuses are spread all over the country. Each of these campuses admitted an average of 50 students in March 2013 making a total population of approximately 1,600 nursing students (target population) , who were in their final year and waiting to do their final qualifying examination.

For the purpose of this study the researcher divided the country into four regions. Region one was campuses in Central Kenya, Nairobi and upper Eastern. Region two was campuses in Western and Nyanza province, while campuses in Rift Valley Province formed region three and region four was campuses in Coast and lower Eastern province. The researcher carried out cluster sampling where one cluster was randomly sampled using a simple random sampling method. This was done by writing the names of all the four regions on pieces of papers which were folded and put in a bowl. The four pieces of papers with names of the cluster were thoroughly mixed and the researcher then picked one piece with the name of the cluster which formed the sample.

The sampled cluster comprised of campuses in Central Kenya, Nairobi and upper Eastern. These are Nairobi campus, Thika, Murang'a, Nyeri, Meru, Embu and Kitui. The researcher collected data from all the students in the final classes of the sampled cluster. The sample population included those who had joined the class after failing their final exams in previous classes. All the final year nursing students who gave an informed consent to respond to the questionnaire were included in the sample population (N=348). This was a non- purposive

sampling and every individual in the study population had an equal chance of being included in the sample population (Taylor, Kermode and Roberts 2007).

### **3.5 ETHICAL ISSUES**

Research proposal was approved by KNH/UON Ethics & Research committee (see appendix 9) while research authorization was sought from National Commission for Science, Technology and innovation (appendix 7) after the approval of the research proposal. Authority to conduct research in Kenya Medical Training College was obtained from the Director through a letter that was copied to Principals of the sampled Campuses (appendix 8). The Campus principals allowed the Researcher and research assistant's access to the participants. The students (Participants) consented to participate in the study after being explained the purpose of the study and what is expected of them (see consent explanation form in appendix1)

### **3.6 INCLUSION AND EXCLUSION CRITERIA**

#### **3.6.1 Inclusion Criteria**

All the final year nursing students who were taking a pre-service diploma in Kenya Registered Community Health Nursing, at Kenya Medical Training College campuses who were willing to participate in the study were included.

#### **3.6.2 Exclusion Criteria**

- i. Students undertaking Kenya Registered Community Health Nursing course but not in their final year of study at Kenya Medical Training College.
- ii. Final year nursing students taking a diploma in Kenya Registered Community Health Nursing who did not consent to participate in the study.



- iii. Students enrolled in other programmes other than diploma in nursing at Kenya Medical Training College.

### **3.7 STUDY VARIABLES**

#### **3.7.1 Independent variables**

Faculty staff, curriculum and content delivery, learning environment (classrooms, library, skills laboratory, clinical placements areas and other support services)

#### **3.7.2 Dependent variable**

Perceived level of satisfaction

### **3.8 DATA COLLECTION TOOLS**

Three types of data collection tools were used. These included; a self-administered structured questionnaire comprising of closed and open ended questions that was used to collect socio-demographic data of the respondents and rate their satisfaction with curriculum instruction, teaching faculty, teaching /learning resources, clinical supervision and other support services (appendix 2). To appraise the teaching and learning environment an observation checklist was used to collect additional quantitative data (appendix3). A focus group discussion guide was also used in each of the study sites to conduct focus group discussions in order to elicit student's experiences, views and opinions on their perceived satisfaction levels with training (appendix4).

### **3.9 PRETESTING**

The data collection tools were pre-tested in Embu campus of Kenya Medical Training College. This campus was excluded from data collection during the main study. Pre-testing of the research tool was carried out on final year nursing students. Forty two students filled the self-administered questionnaire while eight of them were involved in focus group discussion.

The observation checklist was used to appraise the teaching learning environment. The results of the pre-test showed that the data collection tool was able to collect the required information except for quality of nursing rounds which was removed from the final questionnaire.

Objectivity of clinical assessments was reframed to be clear and concise. Evaluation of the data collection procedure was done. Time taken to have the self-administered questionnaires filled was between fifteen and twenty minutes. The participants responded to all the items in the questionnaire. Observation check list was also pre-tested and found to collect the required information well. The focus group discussion guide was found to collect adequate information within thirty five minutes.

### **3.10 RELIABILITY AND VALIDITY**

#### **3.10.1 Reliability**

Reliability is the consistency with which a tool measures what it is intended to measure. It refers to the reproducibility of the results of a measurement technique (Taylor, Kermode and Roberts (2007). This means that given the same circumstances the technique will reliably produce the same measurements. Reliability of the research instruments for this study was ensured through the following ways:

- i. The questionnaire and observation checklist were pre-tested before actual data collection and any defects identified were corrected.
- ii. The data collectors were trained on content of the tools and data collection process.
- iii. All questionnaires and checklists were scrutinized for consistency and completeness before data entry.

- iv. A correlation coefficient was calculated to demonstrate the strength of the reliability and the results gave a Cronbach Alpha value of 0.789 indicating that the responses received were reliable. Cronbach Alpha value of 0.7 and above is reliable.

### **3.10.2. Validity**

Research validity relates to the extent at which the survey measures right elements that need to be measured. Validity is a measure of whether a data collection tool actually measures what it is supposed to measure (Moule & Goodman 2009). Validity can be divided into two groups: internal and external. Internal validity refers to how the research findings match the reality, while external validity refers to the extent to which research findings can be replicated or generalized beyond the sample. External Validity in this study was ensured through randomly selecting the sample population in order to ensure that each subject had an equal chance of being included in the study. This representativeness enabled generalization of the findings to the entire study population.

### **3.11 RECRUITMENT OF RESEARCH ASSISTANTS**

Three research assistants were recruited and trained on data collection tools and data collection process. This was in order to enhance objectivity during data collection especially when using the observation check lists to appraise the learning environment. They were also involved in pre-testing the data collection tools and making the necessary modifications to improve on it.

### **3.12 DATA COLLECTION PROCEDURE**

After getting permission to carry out research in Kenya Medical Training College from the management, the researcher booked appointments with campus Principals to seek their approval and agree on dates convenient to visit each campus for data collection. On agreed

date and time the research team reported to the campus Principal and arrangements were made for the team to meet all the final year nursing students in a classroom.

After introduction the research team was left with the students to introduce to them the purpose of their visit which was to collect data for research. The researcher introduced herself and also introduced the research assistants and their roles. The purpose of the research (Partial fulfillment for the award of Doctor of Philosophy in Nursing Educating in the School of Nursing Sciences University of Nairobi) was explained and participants were assured that data collected would be treated confidentially and used for the purpose of the research and nothing else. The students were then informed that they would be free to withdraw from giving the information if they do not want to participate and they would not be victimized for their withdrawal. Those who consented to participate in the study were requested to sign the informed consent form for research participation on first page of the questionnaire. Among the students who consented to participate, eight were selected for a focus group discussion while the rest filled in the questionnaires.

### **3.12.1 Administration of the questionnaire**

Questionnaires were distributed to the respondents (final year nursing students who consented to participate) in the classroom and they were instructed not to write their names on it to maintain anonymity. They were also requested to respond to all questions in the questionnaire as sincerely as possible. The students were allowed time to complete the questionnaires after which the research assistant came back to class to collect them. Leaving the students to fill the questionnaire makes them relax and respond to the questionnaire freely. This process of giving the questionnaire, waiting for it to be filled and collecting it immediately it is filled in increases the return rate because there is commitment on part of the respondents and no room for forgetting to fill the questionnaire or losing it (Taylor, Kermode

and Roberts 2007). The research assistant thanked the students for participating as she collected the completed questionnaires.

### **3.12.2 Focus Group Discussions**

After explanation of the purpose of the research was done, eight (8) of the students who consented to participate in the research were identified for focus group discussion with the researcher. The identified students in each of the study sites were settled in a classroom which was quiet and free from interruption. Climate setting and individual self-introductions were done by all members of the group. The purpose of the research was reminded to the members of the focus group discussion and they signed informed consent forms for research participation which were collected by the research assistant.

A focus group discussion guide was used to direct the discussion. The process involved a brainstorming session in which the focus group members responded to questions and comments directed by the research assistant in response to the group discussion. All responses given by the group were recorded on the blackboard. Then the group worked together to collate and prioritize the ideas and removed duplications and remarks or responses that were judged by the group to be irrelevant to the research question/aim/content. The responses were then written down by the research assistant and then the focus group discussion members were given a vote of thanks for their contribution.

### **3.12.3 Observation checklist data**

The observation check list was used by one of the research assistants to appraise the teaching/ learning environment of the campus including the clinical placements areas where the students carried out their clinical/ practical skills training. This included the campus and hospital where these students trained. The check list was used to score the items such as physical infrastructure, library, skills lab among others, for availability, accessibility,

adequacy, cleanliness and maintenance. After the data collection exercise the research team met the campus Principal and thanked the campus management for the assistance accorded to them.

### **3.13 DATA MANAGEMENT AND ANALYSIS**

#### **3.13.1 Data Safety**

The data was checked for consistency, accuracy, completeness and double entry. The security of data was ensured through use of a password to restrict access by un-authorized persons. Back up of data was done by use of external hard disk drives to prevent loss of data and all questionnaires were stored in a lockable cabinet which was only accessible to the researcher.

#### **3.13.2 Data Analysis**

Data was processed stepwise and involved data validation, data cleaning, data coding and entry into Statistical Package for Social Sciences (SPSS) version 20.0 in order to generate quantitative data. Descriptive statistics were computed to generate means, percentages, ranges and standard deviation and the results presented in form of frequency tables, bar graphs and narration.

Inferential statistics were generated using Pearson's coefficient and Chi-square test in order to determine the relationship between student factors and institutional factors that influence level of satisfaction with training. The level of significance was set at  $P < 0.05$ . Logistic regression model was also used to analyze the predictors of satisfaction. Qualitative data from the focus group discussion was coded and organized into the following themes: Curriculum and instruction, availability of infrastructure, support services in the campus and clinical teaching and learning. Other suggestions were also recorded.

## CHAPTER FOUR: RESULTS

### 4.1 Introduction

The results of the study are presented in form of narrations, figures and tables in various sections based on the set objectives of the study. That is: The demographic information of the learners, students factor that influence level of satisfaction with nursing training and the teacher based factors that influence levels of satisfaction among the final year nursing students. Finally, the learning environmental factors that influence the level of satisfaction of the final year student nurses with the nursing programme and recommend tool for monitoring the quality of teaching and learning process.

#### 4.1.1 Demographic information of the students

Students' gender, religion and marital status were analyzed. Majority (62.8%) of the students were females while 37.2% were males. Majority (53.7%) of the students were Protestants, 36.3% were Catholic faithful and 2.0% were Muslims. However, 84.7% of these students were single whereas 14.3% were married.

Table 4. 1: Demographic characteristics of the students

Demographic information	Number of students (N = 300)	Percent
<b>Gender</b>		
Male	112	37.2
Female	188	62.8
<b>Religion</b>		
Catholic	109	36.3
Protestant	161	53.7
Muslims	6	2.0
Others	24	8.0
<b>Marital Status</b>		
Married	43	14.3
Separated	1	0.3
Single	254	84.7
Widowed	2	0.7

#### **4.1.2 Level of education of students' parents**

The parents' education levels and occupation showed that, 41.7% of these students were from homes where the father had attained middle level college education. Those whose fathers had university education were 16.3% while 1.3% of the students had their fathers having attended vocational institutions. When asked to state their mothers' education level, 35.7% of the students stated their mothers had middle level college education, while 6.0% had mothers who had university education. The results revealed that the fathers were more educated than the mothers

#### **4.1.3 Occupation of the parents**

Majority of the students (39.3%) were from homes where the fathers were employed, 32.75% were from homes where the fathers were farmers and 22.3% were from homes headed by business fathers. The mothers were mainly farmers (41.0%) while 26.7% of the students had mothers who were employees whereas 24.0% of the students had mothers who were in business.



Table 4.2: Parents education levels and occupation

<b>Demographic information of parents</b>	<b>Number of students (N = 300)</b>	<b>Percent</b>
<b>Fathers' education level</b>		
Primary	49	16.3
Secondary	58	19.3
Vocational institution	4	1.3
Middle Level College	125	41.7
University	49	16.3
Others	15	5.0
<b>Mothers' education level</b>		
Primary	75	25.0
Secondary	81	27.0
Vocational institution	9	3.0
Middle Level College	107	35.7
University	18	6.0
Others	10	3.3
<b>Fathers' occupation</b>		
Farmer	98	32.7
Salaried employee	118	39.3
Business	67	22.3
Unskilled labourer	6	2.0
Others	11	3.7
<b>Mothers' occupation</b>		
Farmer	123	41.0
Salaried employee	80	26.7
Business	72	24.0
Unskilled labourer	17	5.7
Others	8	2.7

## **4.2 Student factors that influence levels of satisfaction with nursing training**

### **4.2.1 Kenya certificate of secondary education (KCSE) grades obtained by the Students**

In their KCSE, majority (47.7%) of the students in the nursing colleges had obtained KCSE grade B- (minus). 28.0% obtained KCSE grade C+, 10.3% had obtained grade B+ while the highest was KCSE grade A- which was obtained by 3.7% of the students. Grades A to B- (minus) are usually admitted to regular programmes in the University, Those admitted to KMTC with grade A- (minus), B+ (plus) and B (plain) are university candidates who were probably admitted to university for other courses but had passion for nursing.

Table 4. 3: K.C.S.E grades obtained by the students

<b>KCSE grades obtained</b>	<b>Number of students (N = 300)</b>	<b>Percent</b>
Grade A-	3	1.0
Grade B+	31	10.3
Grade B	12	4.0
Grade B-	143	47.7
Grade C+	84	28.0
Grade C	16	5.3
None committal	11	3.7

#### **4.2.2 Effect of the KCSE result on the students overall satisfaction with the teaching process of the nursing programme**

The level of association of performance in KCSE and students satisfaction with teaching and learning process in nursing was analysed using Chi square tests. All the students who had obtained KCSE grade A- were somehow satisfied with the teaching and learning process of the nursing programme. Majority of those who had B- (74.7%), grade B (66.7%), grade B+ (58.6%), grade C (68.8%), grade C+ (79.7%) were satisfied with the teaching and learning process. The result showed that there was no significant variation in students satisfaction and the KCSE grades obtained ( $\chi^2 = 23.53$ , P = 0.171).

Table 4. 4: Students' KCSE performance and the level of satisfaction with the teaching process of nursing programme

KCSE grade obtained	N	Overall satisfaction with the teaching and learning process of the nursing program				Total
		Not satisfied	Somehow satisfied	Satisfied	Extremely satisfied	
A-	Count %	0 0%	2 100.0%	0 0%	0 0%	2 100.0%
B+	Count %	0 0%	12 41.4%	15 51.7%	2 6.9%	29 100.0%
B	Count %	0 0%	4 33.3%	8 66.7%	0 0%	12 100.0%
B-	Count %	2 1.5%	32 23.9%	90 67.2%	10 7.5%	134 100.0%
C+	Count %	0 0%	16 20.3%	60 75.9%	3 3.8%	79 100.0%
C	Count %	0 .0%	5 31.3%	8 50%	3 18.8%	16 100.0%
Total	Count %	2 7%	72 25.4%	191 67.5%	18 6.4%	283 100.0%

#### 4.2.3 Gender influence on students' satisfaction on teaching and learning process

The gender of the students did not affect their overall satisfaction with the teaching and learning process of nursing ( $\chi^2 = 2.110$ ,  $P = 0.550$ ). Among the male students, 71.2% were satisfied with the teaching and learning programme whereas 75.4% of the female students were satisfied.

Table 4.5: Gender of students' and the level of satisfaction with the teaching/learning process

		Overall satisfaction with the teaching and learning process of the nursing program				Total	
		Not satisfied	Somehow satisfied	Satisfied	Extremely satisfied		
Gender	Male	N	0	30	68	6	104
		%	.0%	28.8%	65.4%	5.8%	100.0%
	Female	N	2	42	123	12	179
		%	1.1%	23.5%	68.7%	6.7%	100.0%
Total		N	2	72	191	18	283
		%	.7%	25.4%	67.5%	6.4%	100.0%

#### 4.2.4 Source of Information about career in nursing

The students were asked to state their sources of information about nursing career. The main source of the information stated by 36.3% of the students was from personal interaction with the nurses while 35.7% got the information from parents and relatives. The media (TV, Radio/Newspapers) came third with 16% while 4.7% of the students obtained information about nursing from books and pamphlets. Personal interaction scored the highest. This is where they got firsthand information and possibly their questions about the career were also answered.

Table 4. 6: Students' sources of information about nursing career

Sources	Number of students (N = 300)	Percent
Book and pamphlets	14	4.7
Media (TV, radio/newspaper)	48	16.0
Personal interaction with nurses	109	36.3
Career guidance teacher	11	3.7
Parents and relatives	107	35.7
Other sources	11	3.7

#### 4.2.5 Source of Influence to join nursing training

As shown in table 4.7, majority of the students (42.3%) were influenced to join a career in nursing by a nurse role model, 36.0% by Parents and relatives, 9.3% by peers and friends, 4.3% by teachers and school counselors, while 4.0% were by other factors.

Table 4.7: Sources that influenced the students to join nursing training

Sources influencing students	Number of students	Percent
Peers and friends	28	9.3
Parents and relatives	108	36.0
Teachers and school counselors	13	4.3
Nurse role models	127	42.3
Personal influence	12	4.0
Others	12	4.0

#### 4.2.6 Effect of the students sources of information regarding nursing career and overall satisfaction with teaching/learning process.

The students' sources of information regarding the nursing career had a significant association with the students' satisfaction with the teaching and learning process of the nursing programme ( $\chi^2 = 63.31$ ,  $P = 0.000$ ). 81.9% of the students who learnt about nursing from career guidance teachers 45.5% were extremely satisfied with the teaching and learning process while 78.4% of those who had gotten information about nursing career from personal interaction with nurses were satisfied. 66.6% of the students who got to learn about nursing career from books and pamphlets were satisfied with the teaching and learning process.

Table 4.8: Students' sources about nursing career information and the level of satisfaction with the teaching/learning process

Sources of information about nursing career		Overall satisfaction with the teaching and learning process of the nursing program				Total
		Not satisfied	Somehow satisfied	Satisfied	Extremely satisfied	
Books and pamphlets	Count	0	4	7	1	12
	%	.0%	33.3%	58.3%	8.3%	100.0%
Media (TV, radio/newspapers)	Count	0	15	29	2	46
	%	.0%	32.6%	63.0%	4.3%	100.0%
Personal interaction with nurses	Count	0	22	76	4	102
	%	.0%	21.6%	74.5%	3.9%	100.0%
Career guidance teachers	Count	0	2	4	5	11
	%	.0%	18.2%	36.4%	45.5%	100.0%
Parents and relatives	Count	0	27	69	6	102
	%	.0%	26.5%	67.6%	5.9%	100.0%
Others	Count	1	2	6	0	9
	%	11.1%	22.2%	66.7%	.0%	100.0%
Total	Count	1	72	191	18	282
	%	.4%	25.5%	67.7%	6.4%	100.0%

#### 4.2.7 Learners' involvement in extra-curriculum activities in the college

While in college, 48.3% of the learners were involved in extra-curriculum activities. These activities include; Sports like football, rugby, volleyball, handball, basketball, hockey, lawn tennis, table tennis, scrabble, badminton and athletics. Other activities like charitable work for example, visiting prisoners and children homes, participating in outreach services organized by the hospitals, participating in hospital meetings and also setting the immunization groups. They were also involved in clubs like counseling.

The extent to which the learners' participation in extra-curriculum activities contributed to their overall satisfaction with college experience was analyzed. 13.0% of the learners felt that

the activities contributed extremely to their overall satisfaction, 14.3% stated that it slightly contributed, 32.75 stated participation in the activities moderately contributed to their satisfaction while 40% of the learners felt that it did not contribute to their overall satisfaction at all.

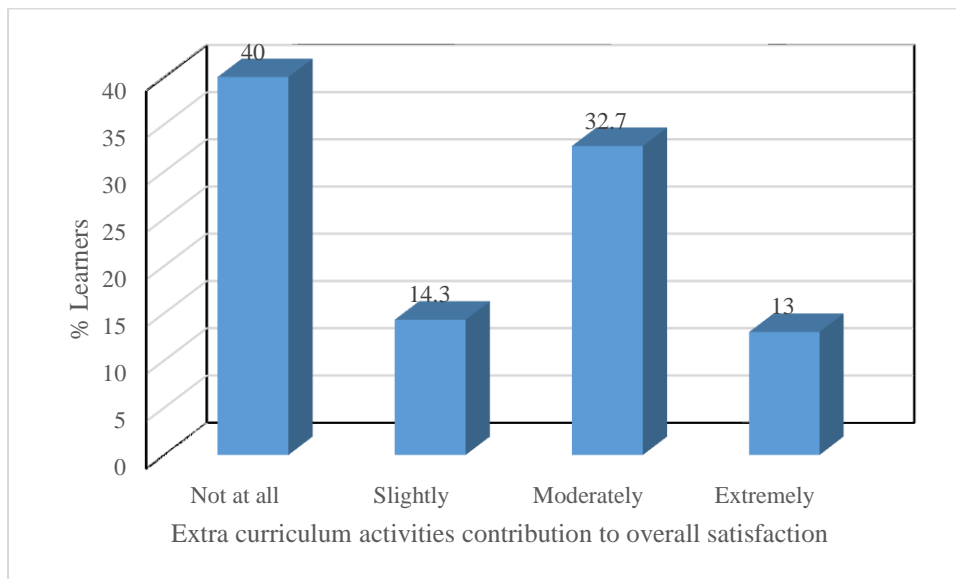


Figure4.1: Extent to which students’ participation in extra-curriculum activities contributed to overall satisfaction with college experience

The extent to which the learners participated in the extra-curriculum activities had significant influence ( $r = 0.143$ ,  $P = 0.026$ ) on their satisfaction with the teaching and learning process of the nursing program. Students who felt that their participation in the extra-curriculum activities contributed to their satisfaction with college experience were satisfied with the overall teaching and learning process.

Table4. 9: Relationship between Learners satisfaction with extra-curriculum activities in college with their satisfaction with teaching and learning process

	Extent to which participation in extra-curricular activities contributed to overall satisfaction with college experience	Overall satisfaction with the teaching and learning process of the nursing program
To what extent has your participation in these activities contributed to your overall satisfaction with college experience	r-value P-value N	r-value P-value N
	1 .026 252	.143* .026 242
what is your overall satisfaction with the teaching and learning process of the nursing program	r-value P-value N	r-value P-value N
	.143* .026 242	1 .026 283

\*. Correlation is significant at the 0.05 level (2-tailed).

### 4.3 Teacher based factors that influence levels of satisfaction among student nurses in training

#### 4.3.1 Curriculum and instruction

In establishing the effect of curriculum and instruction used by the teachers on satisfaction of the learners in nursing training, the learners' views on seven items were evaluated. These were; overall orientation to the expectation of nursing programme, provision of course outlines, organization and flow of course content, relevance of course content, course assessment methods, examination grading system and teaching learning methods used. Learners' responses on the tested items were first tested for the reliability using Cronbach's Alpha coefficient. The result gave a Cronbach's Alpha value of 0.789. This indicated that the response received on these items were reliable and showed the genuine answers from the learners at 78.9%. The learners were satisfied with provision of course outlines (79.7%), the overall orientation to the expectation of the programme (78.3%), relevance of course content



(75.3%), course assessment methods (74.3%), organization and flow of course content (70.3%), and with teaching learning methods used (67.3%).

Table 4. 10: Learners rating regarding their satisfaction levels with curriculum and instruction

<b>Curriculum instruction</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>
Overall orientation to the expectations of nursing	55 (18.3%)	180 (60.0%)	52 (17.3%)	10 (3.3%)	3 (1.0%)	3.91
Provision of course outlines	63 (21.0%)	176 (58.7%)	52 (17.3%)	2 (0.7%)	7 (2.3%)	3.99
Organization and flow of course content	46 (15.3%)	165 (55.0%)	66 (22.0%)	19 (6.3%)	4 (1.3%)	3.80
Relevance of course content	48 (16.0%)	178 (59.3%)	52 (17.3%)	11 (3.7%)	11 (3.7%)	3.88
Course assessment methods	69 (23.0%)	154 (51.3%)	41 (13.7%)	23 (7.7%)	13 (4.3%)	3.93
Examination grading system	41 (13.7%)	183 (61.0%)	49 (16.3%)	25 (8.3%)	2 (0.6%)	3.80
Teaching learning methods used	36 (12.0%)	166 (55.3%)	57 (19.0%)	31 (10.3%)	10 (3.4%)	3.67

5-Extremely satisfied, 4-satisfied, 3-Less satisfied, 2-dissatisfied, 1 Not sure

#### 4.3.2 Learners' satisfaction with teaching faculty

The effect of teaching faculty status on satisfaction of the learners in nursing training was evaluated using measures including; the learners' views on commitment of staff, mentorship and positive role modeling, individualized coaching, coverage of content, giving and receiving feedback on progress and performance, motivation by faculty members and faculty student interactions. Learners' responses on the tested items were first tested for the reliability using Cronbach's Alpha coefficient. The result gave a Cronbach's Alpha value of 0.863. This indicated that the responses received on these items were reliable and showed

genuine answers from the learners at 86.3%. Giving and receiving feedback on progress and performance was rated by 70% of the students as satisfactory, motivation by faculty staff was 64.3% while 69.3% were satisfied with faculty student interaction and accessibility.

Table 4 11: Learners rating regarding their satisfaction levels with teaching faculty

<b>Teaching faculty</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>
Commitment by faculty staff	48 (16.0%)	160 (53.3%)	80 (26.7%)	12 (4.0%)	-	3.81
Mentorship and positive role modeling	64 (21.3%)	134 (44.7%)	69 (23.0%)	27 (9.0%)	6 (2.0%)	3.76
Individualized coaching	43 (14.3%)	139 (46.3%)	65 (21.7%)	33 (11.0%)	20 (6.7%)	3.55
Coverage of content	35 (11.7%)	143 (47.7%)	79 (26.3%)	33 (11.0%)	10 (3.3%)	3.59
Giving and receiving feedback on progress and performance	40 (13.3%)	170 (56.7%)	57 (19.0%)	26 (8.7%)	7 (2.3%)	3.76
Motivation by faculty staff	36 (12.0%)	157 (52.3%)	63 (21.0%)	25 (8.3%)	19 (6.3%)	3.61
Faculty student interaction and accessibility	46 (15.3%)	135 (45.0%)	82 (27.3%)	22 (7.3%)	15 (5.0%)	3.67

5-Extremely satisfied, 4-satisfied, 3-Less satisfied, 2-dissatisfied, 1 Not sure

### **4.3.3 Teaching faculty factors and the students' satisfaction with teaching and learning process**

Students' satisfaction with teaching and learning process in the nursing programme was significantly influenced by the teaching faculty factors ( $P < 0.05$ ) especially in motivation of faculty staff. Students who rated the teaching faculty staff as motivated were satisfied with teaching and learning process ( $r = 0.257$ ,  $P = 0.0001$ ).

Table: 4. 12: Correlation matrix showing relationship between teaching faculty with the Students' satisfaction with teaching and learning process

		Sat	2	3	4	5	6	7	8
Sat	r-value	1	.217(**)	.155(**)	.152(*)	.249(**)	.233(**)	.257(**)	.218(**)
	P-value	.	.000	.009	.011	.000	.000	.000	.000
2	r-value	.217(**)	1	.589(**)	.344(**)	.481(**)	.372(**)	.436(**)	.422(**)
	P-value	.000	.	.000	.000	.000	.000	.000	.000
3	r-value	.155(**)	.589(**)	1	.549(**)	.450(**)	.444(**)	.551(**)	.474(**)
	P-value	.009	.000	.	.000	.000	.000	.000	.000
4	r-value	.152(*)	.344(**)	.549(**)	1	.395(**)	.462(**)	.546(**)	.576(**)
	P-value	.011	.000	.000	.	.000	.000	.000	.000
5	r-value	.249(**)	.481(**)	.450(**)	.395(**)	1	.529(**)	.386(**)	.425(**)
	P-value	.000	.000	.000	.000	.	.000	.000	.000
6	r-value	.233(**)	.372(**)	.444(**)	.462(**)	.529(**)	1	.542(**)	.573(**)
	P-value	.000	.000	.000	.000	.000	.	.000	.000
7	r-value	.257(**)	.436(**)	.551(**)	.546(**)	.386(**)	.542(**)	1	.633(**)
	P-value	.000	.000	.000	.000	.000	.000	.	.000
8	r-value	.218(**)	.422(**)	.474(**)	.576(**)	.425(**)	.573(**)	.633(**)	1
	P-value	.000	.000	.000	.000	.000	.000	.000	.
	N	275	290	288	288	286	286	288	290

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Sat- overall satisfaction with the teaching and learning process of the nursing program, 2- Commitment by faculty staff, 3- mentorship and positive role modeling, 4- individualized coaching, 5- coverage of content, 6- giving and receiving feedback on progress and performance, 7- motivation of faculty staff, 8- faculty students interaction and accessibility

#### 4.3.4 Clinical supervision

The students rating of clinical supervision they received in nursing training was evaluated by measuring; the learners' rating of commitment by clinical supervisors, availability of clinical objectives, mentorship and role modeling, individualized coaching, quality of demonstration, quality of case presentation, objectivity of clinical assessment, availability of hospitality and availability of clinical cases. Learners' responses on these tested items were first tested for reliability using Cronbach's Alpha coefficient. The result gave a Cronbach's Alpha value of 0.8804. This indicated that the responses received on these items were reliable and showed genuine answers from the learners at 88.04%. Majority 73% of Students were satisfied with

objectivity of clinical assessment out of whom 17% were extremely satisfied. 70% of the students were satisfied with availability of clinical cases and among them 21.3% were extremely satisfied, 67% were satisfied with availability of hospital equipment and supplies, 63.7 were satisfied with commitment by clinical supervisors while 63% were satisfied with availability of clinical objectives. The lowest satisfaction mean was three point five (3.5) out of five (5). This implies that the students were satisfied with clinical supervision

Table 4.13: Students' rating regarding the Clinical supervision

<b>Clinical supervision</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>
Commitment by clinical supervisors	44 (14.7%)	147 (49.0%)	53 (17.7%)	33 (11.0%)	23 (7.7%)	3.55
Availability of clinical objectives	44 (14.7%)	145 (48.3%)	68 (22.7%)	32 (10.7%)	11 (3.7%)	3.61
Mentorship and role modeling	35 (11.7%)	141 (47.0%)	65 (21.7%)	41 (13.7%)	18 (6.0%)	3.50
Individualized coaching and feed back	34 (11.3%)	138 (46.0%)	74 (24.7%)	38 (12.7%)	16 (5.3%)	3.53
Quality of demonstration and return demonstrations	33 (11.0%)	142 (47.3%)	69 (23.0%)	40 (13.3%)	16 (5.3%)	3.50
Quality of case presentations and clinical conferences	28 (9.3%)	135 (45.0%)	96 (32.0%)	27 (9.0%)	14 (4.7%)	3.50
Objectivity of clinical assessments	51 (17.0%)	168 (56.0%)	50 (16.7%)	26 (8.7%)	5 (1.7%)	3.81
Availability of hospital equipment and supplies	41 (13.7%)	160 (53.3%)	69 (23.0%)	23 (7.7%)	7 (2.3%)	3.72
Availability of clinical cases (patients & clients)	64 (21.3%)	146 (48.7%)	62 (20.7%)	13 (4.3%)	15 (5.0%)	3.86

5-Extremely satisfied, 4-satisfied, 3-Less satisfied, 2-dissatisfied, 1 Not sure

### 4.3.5 Correlation analysis on the clinical supervision factors and the students' satisfaction with teaching and learning process

Students who were satisfied with the commitment by the clinical supervisor were significantly satisfied with teaching and learning process of the nursing programme ( $r = 0.203$ ,  $P = 0.001$ ). Similar significant relationship was recorded in other clinical supervision items tested ( $P < 0.05$ ) except on availability of the hospital equipment and supplies ( $r = 0.084$ ,  $P = 0.160$ ). Table 4.14

Table 4. 14: Correlation matrix showing relationship between clinical supervision and the students' satisfaction with teaching and learning process

		Sat.	2	3	4	5	6	7	8	9	10
Sat	r-value	1	.203(**)	.241(**)	.181(**)	.227(**)	.254(**)	.205(**)	.155(**)	.084	.139(*)
	P-value	.	.001	.000	.003	.000	.000	.001	.009	.160	.021
2	r-value	.203(**)	1	.591(**)	.522(**)	.399(**)	.561(**)	.503(**)	.365(**)	.414(**)	.299(**)
	P-value	.001	.	.000	.000	.000	.000	.000	.000	.000	.000
3	r-value	.241(**)	.591(**)	1	.482(**)	.426(**)	.510(**)	.412(**)	.475(**)	.442(**)	.365(**)
	P-value	.000	.000	.	.000	.000	.000	.000	.000	.000	.000
4	r-value	.181(**)	.522(**)	.482(**)	1	.552(**)	.580(**)	.504(**)	.423(**)	.413(**)	.359(**)
	P-value	.003	.000	.000	.	.000	.000	.000	.000	.000	.000
5	r-value	.227(**)	.399(**)	.426(**)	.552(**)	1	.576(**)	.613(**)	.386(**)	.369(**)	.204(**)
	P-value	.000	.000	.000	.000	.	.000	.000	.000	.000	.001
6	r-value	.254(**)	.561(**)	.510(**)	.580(**)	.576(**)	1	.660(**)	.423(**)	.384(**)	.338(**)
	P-value	.000	.000	.000	.000	.000	.	.000	.000	.000	.000
7	r-value	.205(**)	.503(**)	.412(**)	.504(**)	.613(**)	.660(**)	1	.465(**)	.470(**)	.295(**)
	P-value	.001	.000	.000	.000	.000	.000	.	.000	.000	.000
8	r-value	.155(**)	.365(**)	.475(**)	.423(**)	.386(**)	.423(**)	.465(**)	1	.512(**)	.540(**)
	P-value	.009	.000	.000	.000	.000	.000	.000	.	.000	.000
9	r-value	.084	.414(**)	.442(**)	.413(**)	.369(**)	.384(**)	.470(**)	.512(**)	1	.582(**)
	P-value	.160	.000	.000	.000	.000	.000	.000	.000	.	.000
10	r-value	.139(*)	.299(**)	.365(**)	.359(**)	.204(**)	.338(**)	.295(**)	.540(**)	.582(**)	1
	P-value	.021	.000	.000	.000	.001	.000	.000	.000	.000	.
	N	274	289	290	286	285	286	286	289	290	291

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Sat-overall satisfaction with the teaching and learning process of the nursing program, 2- clinical supervision, commitment by clinical supervisors, 3- availability of clinical objectives, 4- mentorship and role modeling, 5- individualized coaching and feed backs, 6- quality of demonstration and return demonstrations, 7- Quality of case presentation and clinical conferences, 8- objectivity of clinical assessments, 9- availability of the hospital equipment and supplies, 10- availability of clinical cases (patients and clients)

#### 4.4 Learning environmental factors that influence student nurses level of satisfaction with nursing training

##### 4.4.1 Teaching and learning resources

Students rating of the teaching and learning resources in the colleges revealed that majority, 76.7% of the students were satisfied with the library facilities in the colleges where 24.7% indicated that they were extremely satisfied. The 65.7% of students who were satisfied with conduciveness of classrooms were among the 17.7 % who were extremely satisfied. However,62.0% were satisfied with computer laboratories while61.0% were satisfied with skills laboratory. The mean score of satisfaction on teaching and learning resources, on a rating scale of 1-5 was 3.7 showing that students were satisfied.

Table 4.15: Students' rating regarding the teaching and learning resources

<b>Teaching and learning resources</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>
Conduciveness of classrooms	53 (17.7%)	144 (48.0%)	60 (20.0%)	28 (9.3%)	15 (5.0%)	3.67
Library facilities	74 (24.7%)	156 (52.0%)	42 (14.0%)	26 (8.7%)	2 (0.7%)	3.93
Computer laboratory	50 (16.7%)	136 (45.3%)	65 (21.7%)	33 (11.0%)	16 (5.3%)	3.58
Skills laboratory	48 (16.0%)	135 (45.0%)	73 (24.3%)	29 (9.7%)	15 (5.0%)	3.63

5-Extremely satisfied, 4-satisfied, 3-Less satisfied, 2-dissatisfied, 1 Not sure

Regarding the skills laboratory 74.6% of the students were satisfied with availability of training manuals, 18.7% being extremely satisfied.72.3% of the students were satisfied with availability of learning objectives, 71.3% by objectivity of skills lab practical assessment, 70.3% were satisfied with availability of skills laboratory equipment and supplies,66% by individualized coaching and feedback, 59.7% by commitment of lecturers and 61% by

demonstration and return demonstration. The average mean for satisfaction on a scale of 1-5 is 3.72 indicating that students were satisfied with the skills laboratory.

Table 4. 16: Students' rating regarding the skills laboratory

<b>Skills laboratory</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>
Commitment by lecturers	56 (18.7%)	123 (41.0%)	80 (26.7%)	29 (9.7%)	12 (4.0%)	3.64
Availability of learning objectives	46 (15.3%)	171 (57.0%)	45 (15.0%)	28 (9.3%)	10 (3.3%)	3.77
Availability of training manuals	58 (19.3%)	166 (55.3%)	47 (15.7%)	22 (7.3%)	7 (2.4%)	3.87
Individualized coaching and feedback	37 (12.3%)	161 (53.7%)	69 (23.0%)	25 (8.3%)	8 (2.6%)	3.66
Demonstration & return demonstration	47 (15.7%)	136 (45.3%)	75 (25.0%)	25 (8.3%)	17 (5.7%)	3.62
Availability of skills lab. Equipment &supplies	52 (17.3%)	159 (53.0%)	52 (17.3%)	24 (8.0%)	13 (4.3%)	3.75
Objectivity of skills lab practical assessments	52 (17.3%)	162 (54.0%)	50 (16.7%)	20 (6.7%)	16 (5.3%)	3.72

5-Extremely satisfied, 4-satisfied, 3-Less satisfied, 2-dissatisfied, 1 Not sure

#### 4.4.2 Other support services in the colleges

The students were asked to rate their satisfaction on other services, for example, accommodation, catering, counseling, transport, security, cleaning and sanitation services. Students were more satisfied with security and safety (57.6%), cleaning and sanitation (55%), recreation facilities (53.3%), counseling and psychological support (53%), transport services (52.6%), health care services (47%) and accommodation (46%) in that sequence. The students were less satisfied with catering services in the colleges which had a mean of 2.99 on a scale of 1-5

Table 4. 17: Students' rating regarding other support services

<b>Other support services</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>
Catering services	18 (6.0%)	100 (33.3%)	77 (25.7%)	63 (21.0%)	42 (14.0%)	2.99
Accommodation	9 (3.0%)	129 (43.0%)	77 (25.7%)	53 (17.7%)	32 (10.7%)	3.10
Health care services	23 (7.7%)	118 (39.3%)	77 (25.7%)	55 (18.3%)	27 (9.0%)	3.20
Counseling and psychological support	20 (6.7%)	139 (46.3%)	69 (23.0%)	49 (16.3%)	23 (7.6%)	3.31
Recreational facilities	21 (7.0%)	139 (46.3%)	61 (20.3%)	56 (18.7)	23 (7.7%)	3.35
Transport services	25 (8.3%)	133 (44.3%)	58 (19.3%)	64 (21.3%)	20 (6.6%)	3.29
Security and safety	37 (12.3%)	136 (45.3%)	62 (20.7%)	53 (17.7%)	12 (4.0%)	3.48
Cleaning and sanitation	28 (9.3%)	137 (45.7%)	64 (21.3%)	48 (16.0%)	23 (7.7%)	3.40

5-Extremely satisfied, 4-satisfied, 3-Less satisfied, 2-dissatisfied, 1- Not sure

#### 4.4.3 Correlation analysis on other support services and the students' satisfaction with teaching and learning process

The level of satisfaction of the students in relation to provision of other support services in the college was analyzed. The correlation matrix revealed there was a significant positive relationship between the level of satisfaction and provision of other support services that included accommodation, health care, counseling and psychological support, recreation facilities, transport services, security and cleaning services ( $P < 0.005$ ). Table 4.18



Table 4.18: Correlation matrix showing relationship between other support services in college with the students' satisfaction with teaching and learning process

		Sat	2	3	4	5	6	7	8	9
1	r-value	1	.130(*)	.227(**)	.232(**)	.195(**)	.190(**)	.209(**)	.250(**)	.254(**)
	P-value	.	.031	.000	.000	.001	.001	.000	.000	.000
2	r-value	.130(*)	1	.642(**)	.425(**)	.439(**)	.341(**)	.388(**)	.313(**)	.279(**)
	P-value	.031	.	.000	.000	.000	.000	.000	.000	.000
3	r-value	.227(**)	.642(**)	1	.431(**)	.452(**)	.382(**)	.386(**)	.304(**)	.319(**)
	P-value	.000	.000	.	.000	.000	.000	.000	.000	.000
4	r-value	.232(**)	.425(**)	.431(**)	1	.571(**)	.460(**)	.406(**)	.415(**)	.353(**)
	P-value	.000	.000	.000	.	.000	.000	.000	.000	.000
5	r-value	.195(**)	.439(**)	.452(**)	.571(**)	1	.584(**)	.490(**)	.460(**)	.478(**)
	P-value	.001	.000	.000	.000	.	.000	.000	.000	.000
6	r-value	.190(**)	.341(**)	.382(**)	.460(**)	.584(**)	1	.585(**)	.462(**)	.517(**)
	P-value	.001	.000	.000	.000	.000	.	.000	.000	.000
7	r-value	.209(**)	.388(**)	.386(**)	.406(**)	.490(**)	.585(**)	1	.607(**)	.580(**)
	P-value	.000	.000	.000	.000	.000	.000	.	.000	.000
8	r-value	.250(**)	.313(**)	.304(**)	.415(**)	.460(**)	.462(**)	.607(**)	1	.610(**)
	P-value	.000	.000	.000	.000	.000	.000	.000	.	.000
9	r-value	.254(**)	.279(**)	.319(**)	.353(**)	.478(**)	.517(**)	.580(**)	.610(**)	1
	P-value	.000	.000	.000	.000	.000	.000	.000	.000	.
	N	278	287	291	291	289	291	289	289	291

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Sat- overall satisfaction with the teaching and learning process of the nursing program, 2- support services, catering services, 3- accommodation, 4- health care services, 5- counseling and psychological support services, 6- recreational facilities, 7- transport services, 8- security and safety, 9-cleaning and sanitation services

#### 4.5 Overall levels of satisfaction of the final year student nurses with nursing training

##### 4.5.1 Perceived benefits the students received from the nursing course

The extent to which the course has helped the students was analyzed. The most agreed benefit from the course was stated by the students as; future career progress, Self-directed learning and search for information, self-confidence, critical thinking and problem solving, ability to work as a team member and effective communication in that sequence. They scored this part of the questionnaire a mean score of 4.17 in a scale of 1-5. This is the highest scored

part of the questionnaire which measured the outcome of the process of teaching and learning.

Table 4. 19: Students' agreement on how well the course has helped them

<b>Statement</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>
Critical thinking and problem	103 (34.3%)	157 (52.3%)	29 (9.7%)	9 (3.0%)	2 (0.7%)	4.19
Effective communication	114 (38.0%)	142 (47.3%)	23 (7.6%)	18 (6.0%)	3 (1.0%)	4.17
Ability to work as a team member	126 (42.0%)	122 (40.7%)	33 (11.0%)	17 (5.7%)	2 (0.7%)	4.18
Professional networking	88 (29.3%)	158 (52.7%)	33 (11.0%)	17 (5.7%)	4 (1.3%)	4.04
Emotional maturity	100 (33.3%)	147 (49.0%)	30 (10.0%)	20 (6.7%)	3 (1.0%)	4.09
Self-directed learning and search for information	120 (40.0%)	150 (50.0%)	16 (5.3%)	12 (4.0%)	2 (0.7%)	4.26
Acquisition of ethical behavior and professional etiquette	106 (35.3%)	160 (53.3%)	23 (7.7%)	10 (3.3%)	1 (0.3%)	4.21
Self confidence	118 (39.3%)	146 (48.7%)	21 (7.0%)	15 (5.0%)	-	4.24
Future career progress	112 (37.3%)	161 (53.7%)	26 (8.7%)	-	1 (0.3%)	4.30
Appreciation of cultural and philosophical diversity	95 (31.7%)	152 (50.7%)	37 (12.4%)	5 (1.7%)	11 (3.7%)	4.06

5-strongly agree, 4-agree, 3-Not sure, 2-disagree, 1-strongly disagree

#### 4.5.2 Overall rating by the students (Table 4.20)

In their overall rating, 73.3% of the students felt that overall quality of training is good and among them 20% indicated that it was very good. The trainers' abilities were rated good by 65.3% of the students. Acquisition of relevant knowledge and competencies was good (65%) while training facilities were also good (59.6%)

Table 4. 20: Students' overall rating in the colleges

Statement	5	4	3	2	1	NC	Mean
Overall quality of training	60 (20.0%)	160 (53.3%)	49 (16.3%)	10 (3.3%)	1 (0.3%)	20 (6.7%)	3.96
Adequacy of the training facilities	49 (16.3%)	130 (43.3%)	71 (23.7%)	22 (7.3%)	8 (2.7%)	20 (6.7%)	3.86
Trainers abilities	58 (19.3%)	138 (46.0%)	62 (20.7%)	19 (6.3%)	4 (1.3%)	19 (6.3%)	3.81
Acquisition of relevant knowledge and competencies	59 (19.7%)	136 (45.3%)	70 (23.3%)	17 (5.7%)	-	18 (6.0%)	3.84
Extra curriculum activities e.g sports, clubs	44 (14.7%)	125 (41.7%)	77 (25.7%)	28 (9.3%)	8 (2.7%)	18 (6.0%)	3.60

5-Very good, 4-Good, 3-satisfactory, 2-Poor, 1-Very poor, NC-None committal

#### 4.5.3 Overall satisfaction with the teaching and learning process of the nursing program

The students overall satisfaction with the teaching and learning process was established. The result revealed that, besides the other minor issues raised in the colleges, 6.0% of the students were extremely satisfied with the learning process, 63.7% of the students were satisfied while 24% were somehow satisfied. However, 0.7% of the students were not satisfied with the teaching/learning process in the colleges.

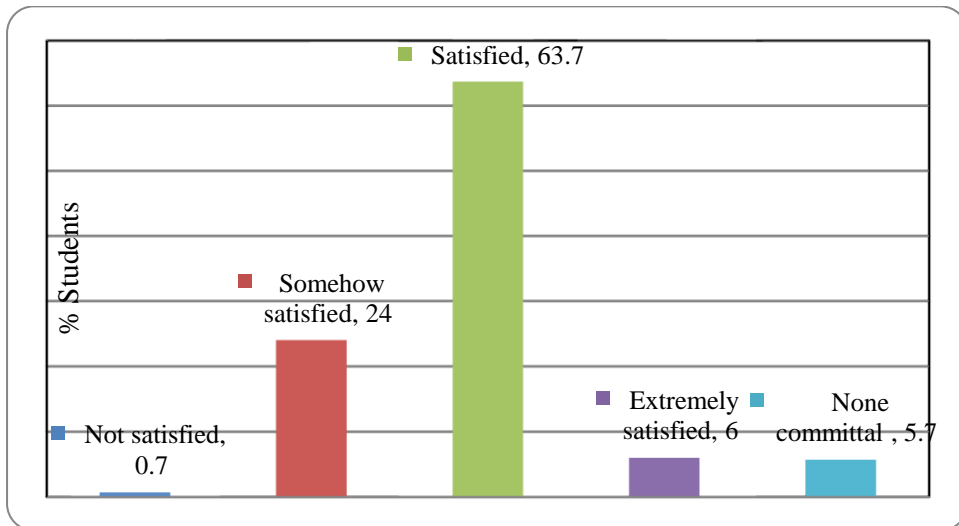


Figure 4. 2: Overall satisfaction of the students with the teaching and learning process

#### 4.5.4 Correlation analysis on the students overall rating and the students satisfaction with teaching and learning process

Correlation analysis on the students overall rating and the students satisfaction with teaching and learning process showed that, there was a significant relationship between the overall rating of the quality of training ( $r = 0.374$ ), adequacy of training facilities ( $r = 0.224$ ), acquisition of relevant knowledge and competencies ( $r = 0.193$ ), extra-curriculum activities ( $r = 0.215$ ) with the students' overall satisfaction with the teaching and learning process of the nursing programme. Those who indicated the ratings were good were the students who were satisfied with the teaching process hence the positive correlation values. Table 4.21

Table 4. 21: Correlation matrix of the students overall rating with students' satisfaction with teaching and learning process

		1	2	3	4	5	6
Overall satisfaction with the teaching and learning process	r-value	1	.374(**)	.224(**)	.234(**)	.193(**)	.215(**)
	P-value	.	.000	.000	.000	.001	.000
Overall quality	r-value	.374(**)	1	.459(**)	.459(**)	.382(**)	.249(**)
	P-value	.000	.	.000	.000	.000	.000
adequacy of the training facilities	r-value	.224(**)	.459(**)	1	.550(**)	.438(**)	.398(**)
	P-value	.000	.000	.	.000	.000	.000
trainers ability	r-value	.234(**)	.459(**)	.550(**)	1	.623(**)	.399(**)
	P-value	.000	.000	.000	.	.000	.000
Acquisition of relevant knowledge and competencies	r-value	.193(**)	.382(**)	.438(**)	.623(**)	1	.324(**)
	P-value	.001	.000	.000	.000	.	.000
extra-curricular activities e.g. sports, clubs etc.	r-value	.215(**)	.249(**)	.398(**)	.399(**)	.324(**)	1
	P-value	.000	.000	.000	.000	.000	.
	N	280	278	278	279	280	282

\*\* Correlation is significant at the 0.01 level (2-tailed).

1- overall satisfaction with the teaching and learning process of the nursing program, 2- Overall quality, 3- adequacy of the training facilities, 4- trainers ability, 5- acquisition of relevant knowledge and competencies, 6- extra-curricular activities e.g. sports, clubs etc.

#### 4.5.5 Regression analysis on the overall benefits the students perceived to have received

Following a stepwise linear regression analysis, to further establish which of the factors in the overall ratings affected the students' satisfaction with the nursing programme, the result showed that, only overall quality of training and extra-curriculum activities like sports and clubs in the colleges significantly affected students overall satisfaction with teaching and learning process, ( $r^2$  value of 0.132 and 0.148) respectively.

Using a standardized beta coefficient therefore, the effect on the overall student satisfaction was realized in the regression model;

$$Y = \text{constant} + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where Y = overall satisfaction

$X_1$  = rating of overall quality of training

$X_2$  = rating of extra curriculum activities

$\varepsilon$  = error term

Thus the model becomes;  $Y = 1.608 + 0.330X_1 + 0.132X_2$

#### **4.5.6 Effects of studied factors on overall satisfaction with teaching and learning process**

The study sought to establish the overall effect of the tested factors on the overall satisfaction of the students with the teaching and learning process of the nursing programme. Summation of individual attributes of curriculum and instruction, teaching faculty, teaching learning resources, clinical supervision, skills laboratory and other support services was done. To establish how they affect the overall students' satisfaction a stepwise linear regression was conducted on these six items vis-à-vis the student satisfaction. The regression result gave an R-square value of 0.119 indicating an 11.9% regression about the line of best fit. The regression result indicated that all the factors had significant influence, the most influential factor on the students satisfaction was influenced by other factors ( $P = 0.011$ ).

The model of the effect of the factors therefore was;

$$Y = \text{constant} + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \varepsilon$$

Where  $Y$  = overall satisfaction

$X_1$  = curriculum and instruction,

$X_2$  = teaching faculty,

$X_3$  = teaching learning resources

$X_4$  = clinical supervision

$X_5$  = skills laboratory

$X_6$  = other support services

$\varepsilon$  = error term

Thus using standardized beta coefficient, the model becomes;

$$Y = 1.570 + 0.106X_1 + 0.100X_2 + 0.023X_3 + 0.044X_4 - 0.023X_5 + 0.183X_6 + \varepsilon$$

#### **4.6 Suggestions for improvement of teaching and learning process by students in open ended responses**

The students' responses on suggestions of how the teaching and learning process in the nursing programme can be improved were categorized into four themes and have been described under the following headings; facilities, teaching staff, curriculum and teaching resources/equipment.

##### **4.6.1 Facilities**

The students suggested that teaching and learning process in the nursing programme can be improved by having adequate learning facilities. This is by building and equipping of more classrooms, expanding the library space and equipping it with more relevant books for the programme. They also suggested employment of more library staff to ensure that the library is opened more hours in the evening and weekend there by increasing access by students. Expanding the skills laboratory space and adding more equipment would increase access by more students at any given time to allow them more time to practice on skills and finally the computer laboratory should be networked with internet and Wi-Fi made available in the campuses.

##### **4.6.2 Teaching Staff**

The students suggested employment of more lecturers to enhance their availability and allow them more time to guide the students during student centered learning and allow coverage of the syllabus. Some students felt the lecturers needed to improve their attendance to all lectures, plan for the major clinical assessments in time and increase the duration of teaching blocks (theory). They also suggested that clinical mentors and lecturers collaborate to effectively teach in both class and clinical areas for acquisition of knowledge and skills for future use. The lecturers should be visiting the students in the hospital/clinical areas more

often to check on the students' progress. They expressed the need for commitment by all stake holders and increased teamwork.

#### **4.6.3 Curriculum**

The students suggested that the number of units or subjects per semester be reduced. Practical assessments should be done early, while theory exams should be done at the end of the semester. Demonstration of procedures should be done hand in hand with the lecture methods while instructional period on theories should be considerably increased to ensure that the whole content is covered.

#### **4.6.4 Learning resources/equipment**

Students suggested procurement of more books to equip the library. They indicated that some of the books available in the library were older editions and therefore requested for newer editions. They also suggested improvement of skills laboratory equipment and provision access to these resources during weekends. Improvement of cleaning and catering services was also suggested by the students.

#### **4.7: Findings based on visual observation of the learning environment**

Observation checklists used to collect visually observed data in the sampled campuses were analyzed (Table 422).

Observations were made in the six campuses on issues of governance and administration, adequacy of physical infrastructure, library, skills laboratory, ICT, clinical placement and support services. In all the campuses, the college Vision and Mission, Core values and Service charter were displayed. Philosophy statement was not observed in two of the campuses while an organogram was only observed in two of the campuses. An observation on the physical infrastructure showed that the college buildings had good ventilation and



lighting and were maintained (100%). However, in two of the campuses, there was no adequate classroom space and one of the classrooms was dirty.

Only 50% of the campuses had library with adequate sitting space. 83.3% of the campuses had essential books, 83.3% were clean and accessible. The libraries were well maintained and the books were secured. In these campuses, the skills laboratory had adequate space in 50% of them and 66.7% of the campuses there was adequacy of teaching equipment and anatomical charts while 50% were accessible to the learners. The laboratory equipment was secure in 100% of the campuses. Accessibility of e-books and journals was observed in only 33.3% of the campuses. In 100% of the campuses, there were computers, although the computers were only adequate in 66.7% of these campuses which also had internet services.

Support services in the campuses were observed and analysed as follows; all the campuses had transport, cleaning services and security services. 83.7% of these campuses had catering services, 66.7% had health and students mentoring services, while in 50% of the campuses, there were guidance and counseling services.

Table 4.22: Visually Observed data in the six campuses

<b>Item</b>	<b>Number observed (N=6)</b>	<b>Percent</b>	
<b>Governance and administration</b>	Displayed statement of:	6	100
	- Vision and mission		
	- Philosophy statement	5	83.3
	- Core values	6	100
	- Service charter	6	100
	Presence of organogram	2	33.3
<b>Adequacy of physical infrastructure</b>	Number of classrooms	3	50.0
	Classroom space	5	83.3
	Cleanliness	6	100
	Ventilation and lighting	6	100
	Maintenance	6	100
<b>Library</b>	Adequacy of sitting space	3	50.0
	Availability of essential books	5	83.3
	Cleanliness	5	83.3
	Maintenance	6	100
	Accessibility	5	83.3
	Security of books	6	100
<b>Skills lab</b>	Adequacy of space	3	50.0
	Adequacy of teaching equipment and anatomical charts	4	66.7
	Adequacy of anatomical charts	4	66.7
	Security of equipment	6	100
	Accessibility by the learners	3	50.0
<b>ICT</b>	Presence of computer lab	6	100
	Adequacy of computers	4	66.7
	Internet facility	4	66.7
	Accessibility by students	4	66.7
	Accessibility of e-books and journals	2	33.3
	Cleanliness of computers	5	83.3
	Maintenance of computer labs and equipment	6	100
<b>Clinical placement</b>	Availability of clinical objectives	4	66.7
	Availability of mentors	3	50.0
	Adequate client load including average bed occupancy	5	83.3
	Availability of learning resource Centre	2	33.3
<b>Support services</b>	Catering services	4	66.7
	Security	6	100
	Health services	4	66.7
	Student mentoring services	4	66.7
	Guidance and counseling services	3	50.0
	Availability of transport	6	100
	Cleaning services	6	100

## **4.8 Focus group discussion results**

Focus group discussions were held in six study sites along the following themes: curriculum and instruction in the nursing program, availability of infrastructure, support services in the campuses and clinical teaching and learning. Suggestions arising from the focus group discussions were also recorded

### **4.8.1 Curriculum and instruction**

A curriculum is a written document that describes all experiences that are structured for the learner (Mutuma, Kivanguli, Kang`ethe, 1992). It acts as a guide in developing content and methodology for training. Faculty members have a responsibility to ensure that students have a clear understanding of: what they should be learning (learning outcomes), the learning experiences, available opportunities, how they can match available learning experiences with their own needs, and whether they have mastered the topic or not and if not what additional studies and experiences are required. During focus group discussions regarding curriculum and instruction some of the issues that emerged were: time allocated for general nursing and research was inadequate, no time allocated for revision and self-directed learning in the curriculum, some topics taught are out-dated and do not conform to what is being practiced in clinical areas and that theory should be followed up immediately by practical and appropriate field trips. In one of the study sites, one participant said, *“Some units taught are not applicable in nursing.”* and gave the unit on public finance as an example. A participant in another study site intimated that *“Some units are given to people who are not competent and therefore leave the students to look for their own notes.”*

### **4.8.2 Infrastructure and teaching/learning resources**

Adequacy of infrastructure and teaching resources enhances quality of teaching and learning process. The participants in the focus group discussion indicated that the classrooms were clean, well ventilated and well lighted. However, the participants indicated there was

congestion and furniture was not adequate. In one of the study sites, a participant said *“Teaching resources are inadequate for example white board markers and L.C.D projectors. Some lecturers use chalk and some of us are allergic to chalk.”* Supply of teaching/learning resources was not uniform to campuses. In some of the sites the participants were satisfied that teaching and learning resources were available and accessible for their use in one study site a participant commented concerning skills lab training *“Learning is done well especially in objective-structured clinical examinations.”* Another participant said *“The skills lab is clean and ventilation is good but only opened on weekdays from 8am to 5pm.”* While in another study site a participant indicated as follows; *“Skills lab had inadequate space and the humanistic models are also inadequate.”* Participants in some of the study sites reported that the library sitting capacity was inadequate and that there was congestion especially during the examination periods. However, some participants indicated that their libraries were well stocked with relevant books while others were reported to have inadequate books that are outdated. In four of the study sites the participants expressed that library opening hours were between 9am to 5pm during week days, while participants in one site indicated that their library opened 9am to 9pm during weekdays and 9am to 2pm on Saturdays. A participant in one site lamented *“Our library is managed by one person who opens between 8am to 10 am, 11am to 1pm, 2pm to 5pm, making it very difficult for students to access the library when they are in study block.”*

#### **4.8.3 Support services**

Regarding support services the participants reported moderate level of satisfaction with accommodation. However, congestion in the rooms, rationing of water and electricity and payment of accommodation fees even when not in the college were some of the concerns raised by the participants. A participant complained as follows, *“We are forced to pay for accommodation in the college even when we are out in rural and district experiences.”*

Generally, the participants expressed dissatisfaction with catering services. They reported the food to be of poor quality, expensive and of poor hygiene. The kitchen staff-student relationship was reported to be poor and there was inadequate furniture in the dining hall. The participants were however satisfied with other support services like security and safety, cleaning and sanitation, recreation and transport.

#### **4.8.4 Clinical teaching/learning process**

The acquisition of quality clinical experience within a supportive clinical learning environment is a significant concern for a teaching institution such as Kenya Medical Training College (K.M.T.C). The quality of clinical learning usually reflects the quality of the curriculum structure (Papastavrou *et, al;* 2016). The focus group discussants were satisfied with the teaching/learning process in the clinical placements. They gave compliments regarding the variety of learning experiences in the rural health facilities where staff motivated them by providing learning materials, mentorship and supervision. Further, one participant expressed that, *“Provision of tea at break time motivated us.”* During the discussion it emerged that staff in some clinical training sites viewed students as a form of labor force to cover staff shortage. A participant in one of the study site narrated as follows. *“Clinical objectives are not followed while allocating duties and sometimes the clinical supervisors leave the students to perform procedures with minimal supervision.”*

#### **4.8.5 Participants` suggestions for improvement**

To increase satisfaction with teaching and learning, the participants in the focus group discussions had some of the following suggestions: expansion of infrastructure to accommodate the growing student population, regular curriculum review, strengthening of continuous medical education for faculty staff, procurement of additional teaching/learning resources, employment of more lecturers, library staff and clinical instructors.

#### **4.9 Motivating factors related to completion of training**

When asked what motivated them to complete their training, the participants indicated that they were motivated when they: received feedback for examinations done, got encouragement from the lecturers and when they received recognition from the community where they did their clinical placements. They also felt motivated when they applied what they learnt in class to the clinical areas. The increased demand for nursing services in the job market also motivated them to complete their training. A participant in one of the study site said, *“I feel motivated to complete training when I observe role models like our Principal.”* While another one said, *“I feel happy when I give care to a very sick patient and then I see him/her recover to go home.”*

#### **4.10 DEVELOPMENT OF A TOOL TO MONITOR TEACHING AND LEARNING**

The monitoring tool that was developed was a part of the questionnaire for this study. The researcher developed the self-administered questionnaire to determine the factors that influenced final year nursing students' satisfaction with the training process as seen in part one (1) of this study. From the results of the study the researcher was able to determine the factors that significantly affected students overall satisfaction with teaching and learning. The perceived level of students' satisfaction with teaching and learning was also determined. The questionnaire used in the study was scrutinized to extract content that could be used to monitor teaching and learning in a Medical training institution. The researcher developed the tool further and later invited a panel of lectures from Embu campus of Kenya Medical Training College to critique the tool (see appendix 5). The lecturers formed a panel of experts drawn from the following departments; Nursing, clinical medicine, Medical laboratory

sciences and Environmental health science. Copies of the developed tool were distributed to each lecturer and they discussed the items on the tool one by one giving their inputs which were incorporated in the revised document as follows:

- **Instructions:** Please indicate your satisfaction levels in the following **areas** instead of statements
- **Ratings:** 5-Extremely satisfied, 4-Satisfied, 3-Neutral, 2-Dissatisfied,1-Extremely dissatisfied, instead of 5- Extremely satisfied, 4-Satisfied, 3-Less satisfied, 2-Dissatisfied, 1-Not sure
- **Curriculum and instruction:** 1.Over all orientation to the expectations of the program remove the word nursing before program. 2. Add no.6 teaching aids
- **Teaching Faculty:** 12. Faculty/ student interaction instead of Faculty student interaction
- **Teaching learning resources:** No.16 Delete skills laboratory add accessibility of above facilities.
- **Skills laboratory:** Add accessibility of a skills lab equipment and supplies
- **Other support services:** Accommodation in the institution instead of accommodation

The following quality checks were done on the tool: Consultation with the trainers to confirm if the content of the tool was appropriate and relevant for monitoring teaching and learning for clarity, relevant content accuracy and if it was easily understood. The tool was tried with students to find out if it is cost effective to implement and if it would produce valid and reliable results. The tool was also found to be flexible in that it could be used to monitor teaching and learning for all departments in Kenya Medical Training College.

#### **4.11 RELIABILITY AND VALIDITY OF THE DEVELOPED TOOL**

The tool was tested for reliability and validity by using it to collect data from March 2014 class of student nurses from Embu campus and Murang'a campus. The collected data was analysed through SPSS version 2.0 programme to test the tool. The revised tool was tested for reliability using the Cronbach's Alpha coefficient method. This is a measure of internal consistency, which shows how closely related a set of items are as a group. It is considered to be a measure of scale reliability and for that reason the researcher used it to test the reliability of the new monitoring tool that she had developed.

The results of the Cronbach's Alpha test on the tool gave the following Cronbach's Alpha values: Curriculum and instruction 0.704, teaching faculty 0.818, teaching learning resources 0.725, clinical supervision 0.883, skills laboratory 0.868 and other support services 0.800. Cronbach's Alpha value of 0.7 and above is reliable. The tool was examined for content validity by the panel of lecturers and found to be valid after inclusion of the suggested comments. It also measured what it was intended to measure and the results could be replicated. There by concluding that the tool was valid.

#### **4.12 CORRELATION ANALYSIS**

The Pearson Correlation is expressed in a value between negative 1 and 1 (-1 and 1) where 1 indicates a strong positive relationship, zero(0) indicates no relationship at all and negative 1 (-1) indicates strong negative relationship. When Pearson Correlation was done all the variables in the tool were found to have a positive correlation which is significant at  $p < 0.01$ . The relationship varied from Moderate to strong positive correlation. For purpose of comparison the levels are:

- 0.0– 0.3 weak positive correlation



- 0.3 – 0.5 moderate positive correlation
- Above 0.5 strong positive correlation.

The tool showed strong positive correlations in;

CI & TF at 0.684, CU & CS at 0.684, CI & SL at 0.56, TF & CS at 1.000

TF & SL at 0.681, TF & SS at 0.641, CS & SL at 0.681 and CS & SS at 0.641

The moderate strong positive correlations were:

CI & TLR at 0.382, CI & SS at 0.479, TF & TLR at 0.479, TLR & CS at 0.479

TLR & SL at 0.456, TLR & SS at 0.466

Table 4.23 Correlation Matrix showing relationship between variables in the tool.

		CI	TF	TLR	CS	SL	SS
CI	Pearson Correlation	1	.684**	.382**	.684**	.567**	.479**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	96	96	96	96	96	96
TF	Pearson Correlation	.684**	1	.479**	1.000**	.681**	.641**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	96	96	96	96	96	96
TLR	Pearson Correlation	.382**	.479**	1	.479**	.456**	.446**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	96	96	96	96	96	96
CS	Pearson Correlation	.684**	1.000**	.479**	1	.681**	.641**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	96	96	96	96	96	96
SL	Pearson Correlation	.567**	.681**	.456**	.681**	1	.501**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	96	96	96	96	96	96
SS	Pearson Correlation	.479**	.641**	.446**	.641**	.501**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	96	96	96	96	96	96

\*\* . Correlation is significant at the 0.01 level (2-tailed).

CI-Clinical Instruction, TF- Teaching Faculty, TLR-Teaching Learning Resources, CS- Clinical Supervision, SL- Skills Laboratory, SS- Support services

For comparison purposes the two tools that have been developed have been attached below. These are; one before critique by the panel of lecturers (draft) and the other one after critique has been done and adjustments of the suggested areas have been carried out (final tool).

#### 4.13 MONITORING TOOL BEFORE DISCUSSION

##### RECOMMENDED TOOL FOR MONITORING STUDENTS' SATISFACTION WITH TEACHING AND LEARNING (DRAFT)

Indicate your satisfaction levels on the following statements, *5 – Extremely satisfied, 4 – Satisfied, 3 – less satisfied, 2 – dissatisfied, 1 – Not sure*

<b>How satisfied are you with the following: -</b>		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Curriculum &amp; Instruction?</b>						
1	Overall orientation to the expectations of nursing programme					
2	Provision of course outlines					
3	Course assessment methods i.e. continuous assessment tests, examinations & practical assessments)					
4	Examination grading system					
5	Teaching learning methods used					
Any other information:						
<b>Teaching Faculty</b>						
6	Commitment by faculty staff					
7	Mentorship and positive role modeling					
8	Individualized coaching					
9	Coverage of content					
10	Giving and receiving feedback on progress and performance					
11	Motivation by faculty staff					

12	Faculty student interaction and accessibility					
Any other information:						
<b>Teaching learning resources</b>						
13	Conduciveness of classrooms					
14	Library facilities					
15	Computer laboratory & ICT facilities					
16	Skills laboratory					
Any other information:						
<b>Clinical Supervision</b>		5	4	3	2	1
17	Commitment by clinical supervisors					
18	Availability of clinical objectives					
19	Mentorship & role modeling					
20	Individualized coaching and feed back					
21	Demonstration and return demonstrations					
22	Quality of case presentations and clinical conferences					
23	Objectivity of clinical assessments					
24	Availability of hospital equipment & Supplies					
25	Availability of clinical cases (patients & clients)					
Any other information:						
<b>Skills laboratory</b>						
26	Commitment by lecturers					
27	Availability of learning objectives					
28	Availability of training manuals					
29	Individualized coaching and feedback					

30	Demonstration & return demonstration					
31	Availability of skills lab equipment & Supplies					
32	Objectivity in skills lab practical assessments					
Any other information:						
<b>Other support services</b>						
33	Catering services					
34	Accommodation					
35	Health care services					
36	Counseling & psychological support services					
37	Recreational facilities					
38	Transport services					
39	Security and safety					
40	Cleaning and sanitation services					
Any other information:						

#### 4.14 MONITORING TOOL AFTER DISCUSSION AND ADJUSTMENTS

RECOMMENDED TOOL FOR MONITORING STUDENTS' SATISFACTION WITH TEACHING AND LEARNING PROCESS.

This tool is designed to help evaluate your satisfaction with teaching and learning process.

Please indicate your satisfaction levels on the following statements, *5 – Extremely satisfied, 4 – Satisfied, 3 – Neutral, 2 – dissatisfied, 1 – Extremely dissatisfied*

How satisfied are you with the following: -		5	4	3	2	1
<b>Curriculum &amp; Instruction?</b>						
1	Overall orientation to the expectations of the programme					
2	Provision of course outlines					
3	Course assessment methods i.e. continuous assessment tests, examinations & practical assessments)					
4	Examination grading system					
5	Teaching learning methods used					
6	Teaching aids					
Any other information:						
<b>Teaching Faculty</b>						
7	Commitment by faculty staff					
8	Mentorship and positive role modeling					
9	Individualized coaching					
10	Coverage of content					
11	Giving and receiving feedback on progress and performance					
12	Motivation by faculty staff					

13	Faculty / student interaction and accessibility					
Any other information:						
<b>Teaching learning resources</b>						
14	Conduciveness of classrooms					
15	Library facilities					
16	Computer laboratory & ICT facilities					
17	Accessibility to above facilities					
Any other information						
<b>Clinical Supervision</b>		5	4	3	2	1
18	Commitment by clinical supervisors					
19	Availability of clinical objectives					
20	Mentorship & role modeling					
21	Individualized coaching and feed back					
22	Demonstration and return demonstrations					
23	Quality of case presentations and clinical conferences					
24	Objectivity of clinical assessments					
25	Availability of hospital equipment & Supplies					
26	Availability of clinical cases (patients & clients)					
Any other information:						
<b>Skills laboratory</b>						

27	Availability of skills lab equipment and supplies					
28	Accessibility to the skills laboratory					
29	Commitment by lecturers					
30	Availability of learning objectives					
31	Availability of training manuals					
32	Individualized coaching and feedback					
33	Demonstration & return demonstration					
34	Objectivity in skills lab practical assessments					
Any other information:						
<b>Other support services</b>						
35	Catering services					
36	Accommodation in the institution					
37	Health care services					
38	Counseling & psychological support services					
39	Recreational facilities					
40	Transport services					
41	Security and safety					
42	Cleaning and sanitation services					
Any other information:						

## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

The study findings rejected the null hypothesis by showing that involvement in extracurricular activities, curriculum and instruction method, clinical supervision and role modeling among others significantly influenced satisfaction with training process among final year nursing students of Kenya Medical Training College. The study objectives were to establish the student related factors, teacher based factors and the learning environmental factors that determined the satisfaction of nursing students with teaching and learning process. The study also identified the overall level of satisfaction of the final year nursing students with nursing training. A standard tool for monitoring teaching and learning has also been developed (part 11 of the study).

#### **5.1 Discussion**

The student factors that influenced satisfaction with teaching and learning in nursing training were identified from the study. In the study, 90% of the students were Christians who were satisfied with their training in nursing. Religion is closely associated with helping relationships as acts of mercy. Miers, Rickaby and Polland (2007) indicated that helping individuals was found to provide nurses with great satisfaction and similarly this could be the same to those nurses who are in training. According to Dal, Arifoglu and Razi (2009), nursing is a sacred profession where the need to help others emerged as the main motive of some students aspiring to join nursing. It is not a wonder then that the first hospitals in Kenya were started by Christian missionaries and even today there are many hospitals managed by Christian organizations. The gender of the students did not affect their overall satisfaction with teaching and learning programme. These findings are consistent with other studies



(Robins et al.1997, Ziae, Ahmadinejad, Morravedji 2004, Tessema, Ready and Yu, 2012, Ansari 2002a, Espeland and Indrehus 2003). However, even with absence of significant differences in satisfaction according to gender, the trend of males and females reporting satisfaction was not stable. This could be due to the fact that women are more lenient in their ratings than male students (Tessema, Ready, Yu, 2012).

Students who entered into the training with adequate information about the career and what to expect during the training were extremely satisfied with the teaching and learning process. The students who got the information from the career guidance teachers were more satisfied than those who got the information from nurses or parents and relatives. Career guidance teachers are likely to give unbiased information about a career hence leaving the student to make an informed career choice. On the other hand, parents and relatives are likely to give biased information in an attempt to influence the students to choose a career they would have wished to join but did not manage.

The entry grades into the training of nurses were found to have some influence on the satisfaction of the students while in training. The students who had the highest entry grades were somehow satisfied with the teaching and learning process while those who had lower scores were satisfied with the teaching and learning process in the nursing training. These findings are consistent with the findings of a study by Papastavrou et al (2010). A probable explanation to this could be that the expectations of those with higher entry grades may not have been met in the teaching and learning process of nursing, or they did not have adequate information on other careers that existed to help them make informed choices.

The learners' participation in extra curriculum activities such as sports had significant influence on their satisfaction in the learning process. Exercise and sports helps in relaxation of the mind and body there by preventing mental fatigue and making life enjoyable. Similarly

the learners were satisfied with other support services in the college such as security, safety and sanitation, recreation facilities, counseling and psychological support and many more. Students who were satisfied with the college experience were satisfied with the overall teaching and learning process. Similar findings were reported by Deshields, Kara, Kaynak (2005) who argued that students who have positive college experience will be more satisfied than those students who do not have positive college experience. Further, Tessema, Ready and Yu (2012) found that campus life outside the classroom was important to students' satisfaction as educational experience

The orientation the students received concerning the expectations of the course, the provision of course outlines, organization and flow of course content, assessing methods and examination grading system all contributed to the students satisfaction with the teaching learning process. The students were informed in advance what to expect during the training and what to prepare. The teaching learning experiences realized in the study have contributed to the overall satisfaction with teaching and learning process, a similarity that was echoed across other studies (Papastavrou et al., 2016, and Jaradeen et al, 2012).

The course assessment methods have been found to be a significant factor in overall students satisfaction in a number of studies (Sampson et al 2010, Elliot 2003, Tessema, Ready, Yu, 2012).The more the grading system is perceived to be fair the more likely they feel satisfied. The few students (10%) who were dissatisfied with the curriculum felt it needed review to increase instructional time on theories and conduct practical assessments after students have had adequate time to familiarize themselves with hospital environment.

Teaching faculty members significantly influenced satisfaction of nursing students with teaching learning process positively. Student-nurses were satisfied that the faculty members were: committed to teaching, accessible to the students and interacted with them freely and

mentored them through giving and receiving feedback on their progress and performance. Previous studies have reported similar findings (Lo, 2010, Abdo and Revert, 2006, Deshields, Kara, Kaynak, 2005, Jaradeen *et al*; 2012).

The relationship between the faculty and students is of extreme importance for planning and implementation of learning activities. This is where the students are involved in decision making in areas concerning their learning. Faculty performance and students experience are important variables that influenced students overall satisfaction. The students who received effective meaningful academic coaching felt more satisfied. These findings concur with a study by Ziaee, Ahmedinejad, Morradji, (2004), which found out that course planning and curriculum structure had significant association with student satisfaction.

The skills laboratory is a practical area where nursing students practice various procedures on dummies before they are exposed to the clinical placements where they give care to real patients. In the skills laboratory the students were happy and satisfied that the learning objectives were available and the students knew what their expected behavior was during the training. Training manuals were available for their use and the committed lecturers used the training manuals to teach the students through demonstrations of procedures and allowed them time for return demonstrations. Individualized coaching was considered and assessments in the skills lab were also rated as objective. The students' ability to display good knowledge of the course, positive attitude and performance of the required skills is first assessed in the skills laboratory before exposing the student nurses to the real patients. This is where they apply knowledge taught in class to give care to the patients (application of theory to practice) in simulated situations. The student nurses reported satisfaction with skills laboratory training where there was concurrence of theory and practical. Similar findings were cited in a previous study (Lee, White and Hong, 2009).

The clinical supervisors and mentors are instrumental in clinical teaching, mentorship and role modeling. They give Individualized coaching, co-assess and give feedback to the students while in the clinical areas. Faculty team also follows up the students in clinical areas and receives reports about the student performance in the clinical areas. This study showed that students were satisfied with commitment of clinical supervisor's, availability of clinical cases (patients and clients), and objectivity of clinical assessments. Students who were satisfied with commitment of clinical supervision were significantly satisfied with teaching and learning process and similar significant relationship with teaching and learning process was recorded with supervision of items tested in the study except on availability of the hospital equipment and supplies. These findings concur with those of previous studies (Happel 2008, Tiwaken Caranto and David 2015, Kyrkjebo *et al*; 2001 Espeland and Indrehns, 2003., Tessema, Ready and Yu, 2012).

Students were satisfied when their clinical supervisors ensured that their learning needs were addressed, when they felt respected and appreciated as part of the health care team and when they freely interacted with clinical supervisor and the mentors during individual coaching. The students felt there was a lot of learning experiences in the rural health facilities where staff motivated them by providing learning materials mentorship and supervision. Provision of tea at break time, showing respect to them and correcting them in privacy when they did wrong also motivated them to excel. They felt individualized coaching was practiced more in rural health facilities than in main hospitals. Previous studies by Bisholt *et al.*, (2014), Papastavrou *et al.*, (2016), Lee, White and Hong, (2009), Dimitriadou, Papastravrou, Efstathiou and Theodorou, (2015) have reported similar findings.

Students were satisfied when there was concurrence of what was taught in class with clinical practice. They were also satisfied that clinical cases (patients and clients) were available while clinical supervisors and mentors provided mentorship and acted as role models.

Making the clinical objectives available for use by the students helped them to identify what they needed to learn in the clinical placements. The learning was participatory where students were involved in their own learning and this seemed to enhance their satisfaction. Coaching and demonstration carried out helped the student achieve the learning objectives.

To determine the learning environmental factors that influenced student nurses level of satisfaction, data from the questionnaire, focus group discussion and observation checklists were used to appraise the learning environment, teaching/learning resources and student experiences. The study revealed that students were satisfied with the learning environment. That is the classrooms were conducive with adequate lighting and ventilation, library facilities, skills laboratory and computer laboratory were available. However they were more satisfied with availability of teaching/learning resources than the infrastructure.

Those not satisfied cited congestion in these facilities and recommended expansion of the infrastructure to accommodate the growing population of college students. The students' satisfaction was found to be positively related to all items comprising the learning environment in the school of nursing. Similar findings were reported by Papastavrou *et al.*, (2016) and Lo, (2010).

The final year student nurses were happy with the overall training. They felt well prepared having acquired relevant skills needed for the job such as critical thinking and problem solving skills, effective communication skills and self-confidence, ethical behavior and professional etiquette, emotional maturity and ability to work with other team members. The final year nursing students were satisfied that there were prospects of employment. These findings are similar to those of previous studies (Jaradeen et al, 2012 and Lo, 2010).

In the overall rating the students felt that the quality of training was good. 93.6% of the students were satisfied with the teaching and learning process while 5.7% were non-

committal. However, only 0.7% of the final year nursing students were dissatisfied with the training process. Further the results of regression analysis indicated that the following factors had a significant positive influence on teaching and learning process: curriculum and instruction, teaching faculty, teaching learning resources, clinical supervision, other support services and involvement in extra curriculum activities like sports and clubs. It can be implied that the satisfaction of the students with these tested factors is what contributed to the 93.6% of final year nursing students expressing satisfaction with teaching and learning process. Hence the researcher used the said factors to develop a tool that can be used to monitor the teaching and learning process in nursing training programmes.

The developed tool is derived from the questionnaire used in the first part of the study to determine factors that influenced satisfaction with training process among final year nursing students. Student's satisfaction is an important quality indicator with respect to teaching and learning. The tool that has been developed will be used to monitor teaching and learning in Kenya Medical Training College for continuous improvement.

The tool will monitor how satisfied the learners are and when feedback is given, the trainers will use the results to gauge their performance and because this monitoring is recommend every end of semester, the researcher beliefs the trainers will work towards improving the process of training to improve satisfaction of the students continuously thereby improving on quality of training which should impact the quality of care given to patients and clients since satisfied students are more likely to be successful and committed to achieve their goals than unsatisfied students.

The developed tool when tested for reliability through Cronbach alpha coefficient, all the items on the tool gave Cronbach Alpha values of above 0.700 which means that the tool was reliable. The data collected using the tool was further analyzed using the Pearson correlation

and all the variables in the tool were found to have a positive correlation which varied from moderate to strong positive correlation as shown in the correlation matrix table 4.23.

## **5.2 Conclusion**

The students' factors that influenced their level of satisfaction include: religion, students' knowledge on nursing career before entering into nursing, involvement of students in extra curriculum activities and entry grades to the training college. The teacher based factors that influenced final year nursing students' satisfaction with teaching and learning process were curriculum instruction method, and the relationship between faculty members and their students. The environmental factors that influenced student nurses level of satisfaction were the teaching and learning resources and other related support services.

Overall only 6% of the students were extremely satisfied with the teaching and learning process, 87.7% of them had some level of satisfaction while 0.7% was dissatisfied. However, 5.7% of the respondents were non-committal.

The researcher has demonstrated that the monitoring tool that was developed is both valid and reliable through data collection procedure and data analysis. The results obtained were able to give feedback to trainers on teaching and learning process and student satisfaction. The tool is therefore ready for use.

## **5.3 Recommendations**

### **5.3.1 Action recommendations for the study**

- i. There is need to strengthen career guidance in schools in order to empower the students make informed career choices.

- ii. Expansion of Infrastructure such as classrooms, skills labs and library to avoid congestion of students in the use of these facilities.
- iii. Time for involvement of students in extra-curriculum activities should be provided for in order to promote enjoyment of the learning process.
- iv. Implementation of the tool in Kenya Medical Training Campuses to monitor teaching and learning process every end of semester.
- v. .Trainers to give feedback for continuous improvement of the tool.
- vi. Review of the tool when necessary.

### **5.3.2 Recommendation for further research**

There is need to carry out further research to determine whether satisfaction with the teaching and learning process translates into better performance in nursing practice after graduation.



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## APPENDICES

### APPENDIX 1: INFORMED CONSENT

#### CONSENT EXPLANATION

**Topic:** Determinants of satisfaction with training process among final years nursing students and development of a tool to monitor teaching and learning at Kenya Medical Training College (KMTC).

**Researcher:** Catherine Njeri Kabanya PhD student, School of Nursing Science, College of Health Sciences, University of Nairobi.

**Introduction:** You have been identified to take part in this study titled “determinants of satisfaction with training process among final year nursing students and development of a tool to monitor teaching and learning at Kenya Medical Training College (KMTC)”. The purpose of this consent form is to give you information you require to help you decide whether to participate in the study or not. Feel free to ask the researcher any questions about the research that is not clear.

**Purpose of the study:** To explore determinations of satisfaction with the training process among final year nursing students, develop and recommend a standard tool for monitoring quality of teaching and learning.

**What study involves (procedure):** You will be involved in responding to a self-administered questionnaire that will take about 15-20 minutes to complete, or join a focus group discussion which takes 20-30 minutes of your time.

**Voluntary participation:** Participation in this study is voluntary. There will be no coercion and you may decide not to take part or withdraw from the study at any time. Refusal to participate or withdrawal from the study will not jeopardize your training.

**Confidentiality:** The information obtained from you will be held in confidence and will only be used for the purpose of this study. You will not be required to write your name on the questionnaire.

**Benefits:** while the findings of the study may be used to review the policy that guides training of nurses, there are no direct benefits to you as a participant.

: There are no foreseeable s for participating in this study.

## **CONTACTS**

In case you have any questions or concerns about the research study, you are free to contact the researcher Catherine Kabanya on P. O. Box 1184 – 60100, Embu , Mobile No. 0722432372, email. [ckabanya@gmail.com](mailto:ckabanya@gmail.com)

For any concerns or questions pertaining your rights as a research participant you may contact **Prof. M. L. Chindia Secretary, KNH/UoN – ERC**, P. O. Box 20723 – 00202, Nairobi, Tel. No. 020-2726300 ext. 44102.

If you have read, understood the information above and voluntarily agree to participate in this research please sign the consent form attached..

**Thank You**



CONSENT FORM

**PARTICIPANT’S STATEMENT**

This is to certify that I ----- agree to participate in this study titled “determinants of satisfaction with training among final year nursing students and development of a tool to monitor teaching and learning at Kenya Medical Training College.”

I understand that participation in this study is voluntary and there is no monetary compensation.

I understand that I can decline to participate or I can withdraw from the study at any time without jeopardizing my training in any way.

**Participant’s name----- Sign ----- Date -----**

**Statement by the researcher**

I, the undersigned, have provided all the relevant detail about this research study to the participant named above and believe that the participant has understood and has freely given his/her consent.

**Person obtaining consent: Name----- Sign-----Date-----**

## APPENDIX 2 - QUESTIONNAIRE ON SATISFACTION WITH TRAINING

QUESTIONNAIRE NUMBER-----

DATE-----

### INSTRUCTION

Please indicate your response by putting a **tick (√)** in the appropriate response. The information obtained will be strictly confidential and will be used for the purpose of this study only. Do not write your name on the questionnaire.

### SOCIO-DEMOGRAPHIC DATA

1. Sex? Male  Female

2. Age \_\_\_\_\_years

3. Religious Denomination

a) Catholic

b) Protestant

c) Muslim

d) Hindu

Others specify-----

4. Marital status

a) Married

b) Divorced

c) Separated

d) Single

e) Widowed

5. Level of Training

- a) First year
- b) Second year
- c) Third year
- d) Fourth year

6. Parents education levels

Father's

- a) Primary
- b) Secondary
- c) Vocational
- d) College
- e) University

Others (Specify) \_\_\_\_\_

Mothers

- a) Primary
- b) Secondary
- c) Vocational
- d) College
- e) University

Others (Specify) \_\_\_\_\_

7. Parents occupation

Father

- a) Farmer
- b) Salaried employee
- c) Business
- d) Unskilled labourer

Mother

- a) Farmer
- b) Salaried employee
- c) Business
- d) Unskilled labourer

8. Grades obtained in KCSE

- a) A-
- b) B+
- c) B-
- d) C+
- e) C

9. Have you been a member of a Student Club or Organization? Yes  No

10. To what extent has your participation in the club contributed to your overall satisfaction with college experience?

a) Not at all

b) Slightly

c) Moderately

d) Extremely

On a rating scale of 1-5, please tick one answer that best describe your response regarding your satisfaction levels on the following statements, **5 – Extremely satisfied, 4 – Satisfied, 3 – less satisfied, 2 – dissatisfied, 1 – Not sure**

<b>How satisfied are you with the following: -</b>		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Curriculum &amp; Instruction?</b>						
11	Overall orientation to the expectations of nursing programme					
12	Provision of course outlines					
13	Course assessment methods i.e. continuous assessment tests, examinations & practical assessments)					
14	Examination grading system					
15	Teaching learning methods used					
Any other information:						
<b>Teaching Faculty</b>						
16	Commitment by faculty staff					
17	Mentorship and positive role modeling					
18	Individualized coaching					
19	Coverage of content					
20	Giving and receiving feedback on progress and performance					

21	Motivation by faculty staff					
22	Faculty student interaction and accessibility					
Any other information:						
<b>Teaching learning resources</b>						
23	Conduciveness of classrooms					
24	Library facilities					
25	Computer laboratory & ICT facilities					
26	Skills laboratory					
Any other information:						
<b>Clinical Supervision</b>		5	4	3	2	1
27	Commitment by clinical supervisors					
28	Availability of clinical objectives					
29	Mentorship & role modeling					
30	Individualized coaching and feed back					
31	Quality of demonstration and return demonstrations					
32	Quality of nursing rounds					
33	Quality of case presentations and clinical conferences					
34	Objectivity of clinical assessments					
35	Availability of hospital equipments & Supplies					
36	Availability of clinical cases (patients & clients)					
Any other information:						
<b>Skills laboratory</b>						
37	Commitment by lecturers					
38	Availability of learning objectives					

39	Availability of training manuals					
40	Individualized coaching and feedback					
41	Demonstration & return demonstration					
42	Availability of skills lab equipments & Supplies					
43	Objectives in skills lab practical assessments					
Any other information:						
<b>Other support services</b>						
44	Catering services					
45	Accommodation					
46	Health care services					
47	Counseling & psychological support services					
48	Recreational facilities					
49	Transport services					
50	Security and safety					
51	Cleaning and sanitation services					
Any other information:						

**5 – Strongly agree, 4 – Agree, 3 – Not sure, 2 – disagree, 1 – strongly disagree**

Indicate to what extent you agree with the following: -		5	4	3	2	1
<b>the course has help me to;</b>						
52	Develop critical thinking and problem solving skills					
53	Communicate effectively					
54	Develop my ability to work as a team member					
55	Develop professional network					
56	Develop emotional maturity					
57	Undertake literature search and self-directed					

	learning without difficulties					
58	Acquire ethical behavior and professional etiquette					
<i>Any other comments/information?</i>						

What is your overall rating on the following? **5 – Very good, 4 – Good, 3 – Satisfactory, 2 – Poor, 1 – Very Poor.**

<b>What is your overall rating on the following:</b>		5	4	3	2	1
59	Overall quality of training					
60	Adequacy of the training facilities					
61	Trainers abilities					
62	Acquisition of relevant knowledge and competencies					
63	Extra – curricular activities e.g. sports, clubs etc					



### APPENDIX 3 - OBSERVATION CHECKLIST

ITEMS		YES	NO	N/O
<b>Governance and Administration</b>	• Vision and mission statement			
	• Philosophy statement			
	• Core values			
	• Service charter is displayed			
	• Presence of organogram			
<b>Adequacy of physical infrastructure</b>	• Number of classrooms			
	• Classroom space			
	• Cleanliness			
	• Ventilation and lighting			
	• Maintenance			
<b>Library</b>	• Adequacy of sitting space			
	• Availability of essential books			
	• Cleanliness			
	• Maintenance			
	• Accessibility			
	• Security of books			
<b>Skills Lab</b>	• Adequacy of space			
	• Adequacy of teaching equipment and anatomical models			
	• Adequacy of anatomical charts			
	• Security of equipment			
	• Accessibility by the learners			

<b>ICT</b>	<ul style="list-style-type: none"> <li>• Presence of computer labs</li> </ul>			
	<ul style="list-style-type: none"> <li>• Adequacy of computers</li> </ul>			
	<ul style="list-style-type: none"> <li>• Internet facility</li> </ul>			
	<ul style="list-style-type: none"> <li>• Accessibility by students</li> </ul>			
	<ul style="list-style-type: none"> <li>• Accessibility of e-books and e-journals</li> </ul>			
	<ul style="list-style-type: none"> <li>• Cleanliness of computers</li> </ul>			
	<ul style="list-style-type: none"> <li>• Maintenance of computer labs and equipment</li> </ul>			
<b>Support services</b>	<ul style="list-style-type: none"> <li>• Catering services</li> </ul>			
	<ul style="list-style-type: none"> <li>• Security</li> </ul>			
	<ul style="list-style-type: none"> <li>• Health services</li> </ul>			
	<ul style="list-style-type: none"> <li>• Student mentoring services</li> </ul>			
	<ul style="list-style-type: none"> <li>• Guidance and counseling services</li> </ul>			
	<ul style="list-style-type: none"> <li>• Availability of transport</li> </ul>			
	<ul style="list-style-type: none"> <li>• Cleaning services</li> </ul>			
<b>Clinical Placement</b>	<ul style="list-style-type: none"> <li>• Availability of clinical objectives</li> </ul>			
	<ul style="list-style-type: none"> <li>• Availability of mentors</li> </ul>			
	<ul style="list-style-type: none"> <li>• Adequate client load including average bed occupancy</li> </ul>			
	<ul style="list-style-type: none"> <li>• Availability of learning resource centres</li> </ul>			

#### **APPENDIX 4: FOCUS GROUP DISCUSSION GUIDE**

1. a) Is the vision, mission and philosophy statements of the college displayed?  
b) If yes, what do they state?
2. In your opinion, what is the relevance of these statements to the nursing programmes, goals and objectives?
3. a) What is your understanding of the term course outline?  
b) Are course outlines and course content provided to you in every semester?
4. How satisfied are you with coverage of the course content by the course facilitators?
5. What are your comments regarding specific nurses courses/units?
6. What are your comments regarding the classrooms, library, skills lab, computer lab?
7. a) What support services are available to the students?  
b) Do you have any comments regarding these services?
8. What are your comments about teaching and learning in the clinical placements?
9. How would you rate your overall satisfaction with the teaching learning process in nursing programmes?
10. What are your recommendations regarding improvement of teaching/learning in the training of nurses?
11. What motivates you to complete your training?
12. In your opinion, what makes you think nursing is better than other careers?

**THANK YOU**

**APPENDIX 5: LIST FOR LECTURES INVOLVED IN CRITIQUEING THE TOOL.**

**KENYA MEDICAL TRAINING COLLEGE – EMBU  
CRITIQUE OF MONITORING TOOL BY A PANEL OF EXPERTS**

OFFICERS NAME	QUALIFICATION(S)	DESIGNATION	SIGN	DATE
ALBERT KINYUA	BSc. HSM, CLN, KRCHEM	LECTURER		5/5/2017
Mulwa Paul Kithuku	High Dip Clinical med	LECTURER		5/5/2017
ALICE W. MANDARA	HOD in Environmental Health Sciences	LECTURER		05/05/2017
CHARLES N. KINJI	MBA ML-S(BAET)	LECTURER		05/05/17
Abigail Y. Buigut	BSc, MSc.	Lecturer.		5/05/17
Gabriel Nane	High Dip Public Health	Lecturer		5/05/17
Elizabeth Muriithi	MPH, KRCHEM, M.N	Lecturer		5/05/17
Pauline W. Muthi	BScN / KRCHEM / Nurse	lecturer		5/05/17
PETER Z. GACHAU	DIP / BSc	Lecturer		5/5/17
Emilia K. handa	BSc / KRCHEM	lecturer		5/5/17



**APPENDIX 6: RESEARCH CLEARANCE PERMIT CARD**

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

**CONDITIONS**

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.**
- 2. Government Officers will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**

**REPUBLIC OF KENYA**

**NACOSTI**

**National Commission for Science, Technology and Innovation**

**RESEARCH CLEARANCE PERMIT**

**Serial No: A/C/16/044**

**CONDITIONS: see back page**

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

**THIS IS TO CERTIFY THAT:**

**MS. CATHERINE NJERI KABANYA**

**of UNIVERSITY OF NAIROBI, 0-60100**

**embu, has been permitted to conduct**

**research in Embu, Kiambu, Kitui,**

**Meru, Muranga, Nairobi, Nyeri**

**Counties**

**on the topic: DETERMINANTS OF**

**SATISFACTION WITH TRAINING PROCESS**

**AMONG FINAL YEAR NURSING**

**STUDENTS AND DEVELOPMENT OF A**

**TOOL TO MONITOR TEACHING AND**

**LEARNING AT KENYA MEDICAL TRAINING**

**COLLEGE**

**for the period ending:**

**1st April, 2017.**

**Applicant's Signature**

**Permit No : NACOSTI/P/16/80049/9196**

**Date Of Issue : 15th April, 2016**

**Fee Received :Ksh 2000**

**Director General**

**National Commission for Science, Technology & Innovation**



## APPENDIX 7: RESEARCH AUTHORIZATION LETTER



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref. No. **NACOSTI/P/16/80049/9196**

Date:

**15<sup>th</sup> April, 2016**

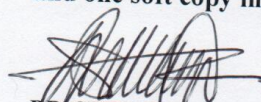
Catherine Njeri Kabanya  
University of Nairobi  
P.O. Box 30197-00100  
**NAIROBI.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on *“Determinants of satisfaction with training process among final year nursing students and development of a tool to monitor teaching and learning at Kenya Medical Training College,”* I am pleased to inform you that you have been authorized to undertake research in **Embu, Kiambu, Kitui, Meru, Murang’a, Nairobi and Nyeri Counties** for the period ending **1<sup>st</sup> April, 2017.**

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

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

  
**DR. STEPHEN K. KIBIRU, PhD.**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioners  
Selected Counties.

The County Directors of Education  
Selected Counties.



## APPENDIX 8: AUTHORITY TO COLLECT DATA LETTER

Telegrams: "MEDTRAIN" Nairobi  
TELEPHONE: NAIROBI 2725191, 2725711/14  
Fax: 2722907 Email: [info@kmtc.ac.ke](mailto:info@kmtc.ac.ke)  
Please address all correspondence to:  
The Director  
When replying please quote  
KMTC/ADM/74/VOL.



KENYA MEDICAL TRAINING COLLEGE  
P.O. BOX 30195-00100  
NAIROBI

Ref: No. ....

Date..... 7<sup>th</sup> January, 2016

Catherine Kabanya  
P/No. 1984062539  
P O Box 923 - 60100  
**EMBU**

### **AUTHORITY TO COLLECT DATA**

We acknowledge with thanks receipt of your letter dated 14<sup>th</sup> December, 2015 requesting for an authorization to carry out research in our sampled colleges on "*Determinants of satisfaction with training progress among final year Nursing students and development of a tool to monitor teaching and learning at Kenya Medical Training College*" and wish to inform you that your request has been granted.

Please note that you are required to present yourself to the Principals; Nairobi, Thika, Kitui, Murang'a, Meru and Nyeri MTC to facilitate your access to the study site.

Further, note that you will be required to share your findings with the colleges by depositing both a hard and soft copy to the Director's office.

Best wishes.

Dr. Lucy Waweru  
**FOR: DIRECTOR**

Copy to: Principal, Nairobi MTC,  
Thika MTC  
Meru MTC  
Murang'a MTC  
Nyeri MTC  
Kitui MTC

KMTC ISO 9001:2008 CERTIFIED



## APPENDIX 9: REVISED RESEARCH PROPOSAL APPROVAL LETTER



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

Ref: KNH-ERC/A/490

Catherine Njeri Kabaya  
Reg. No.H80/96448/2014  
School of Nursing Sciences  
College of Health Sciences  
University of Nairobi

Dear Catherine

**Revised research proposal: Determinants of satisfaction with Training process among Final year nursing students and Development of a tool to monitor Teaching and Learning at Kenya Medical Training College (P32/01/2015)**

This is to inform you that the KNH- UoN Ethics & Research Committee (KNH-UoN ERC) has reviewed and **approved** your above proposal. The approval periods are 3<sup>rd</sup> December 2015 – 2<sup>nd</sup> December 2016.

This approval is subject to compliance with the following requirements:

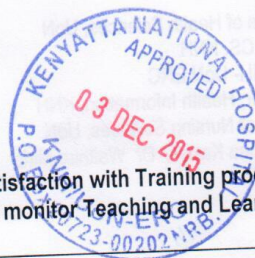
- Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
- All changes (amendments, deviations, violations etc) are submitted for review and approval by KNH-UoN ERC before implementation.
- Death and life threatening problems and serious adverse events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

Protect to discover



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

3<sup>rd</sup> December 2015





For more details consult the KNH/UoN ERC website <http://www.erc.uonbi.ac.ke>

Yours sincerely,



**PROF. M.L. CHINDIA**  
**SECRETARY, KNH-UoN ERC**

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

Protect to discover

## APPENDIX 10: FIRST PUBLICATION



### Socio-Demographic Determinants of Satisfaction with Training Process among Final Year Nursing Students at Kenya Medical Training College

Kabanya CN, Karani AK and Mirie W

Kenya Medical Training College, University of Nairobi, Embu, Kenya

\*Corresponding author: Kabanya CN, Kenya Medical Training College, University of Nairobi, Embu, Kenya, Tel: 2540722432372; E-mail: ckabanya@kmttc.ac.ke

Received date: Nov 03, 2016, Accepted date: Jan 05, 2017, Published date: Jan 13, 2017

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#### Abstract

Student satisfaction is an important means of assessing the institution's capacity in meeting the students' learning needs. The degree of student's satisfaction with their educational experience is an important dimension in the assessment of institutional effectiveness. Understanding students' perceptions and satisfaction is important in efforts to enrich the students' learning experiences. This study aimed at identifying the student's socio-demographic factors that influenced satisfaction with the nursing training among the final year nursing students in Kenya Medical Training College. This was a mixed method design where both quantitative and qualitative data was collected using the following: a self-administered questionnaire comprising of both closed and open ended questions and a Likert's rating scale which scored the levels of satisfaction on various themes. Data was collected from final year nursing students in the six selected campuses. Quantitative data was analyzed using Statistical Package for Social Scientists (SPSS) program version 20.0. Chi-square tests were used to test relationships between perceived level of satisfaction and the selected independent variables. The results showed that gender of student did not influence students overall satisfaction. However, students who had positive college experience were satisfied with overall teaching and learning process. Student's information sources regarding the nursing career had a significant association with their satisfaction with teaching and learning process.

**Keywords:** Satisfaction; Teaching and learning; Extra-curricular activities; Nursing training

#### Introduction

Satisfaction is the good feeling that one has when she/he achieves something or when something she/he wanted to happen does happen. Jaradeen et al. [1] defined satisfaction as a psychological state which results from confirmation of expectations with reality. Studies point out that certain factors exert positive and significant influences on student satisfaction. These factors include, student background characteristics, participation in the community, access to and use of college facilities and services, faculty style of instruction, academic and social integration, learning activities, courses, quality and usefulness of education [2,3]. A study done by Rogstad [4], found that Norwegian nursing students were motivated to join a nursing career by the need for human contact and need for helping others. They viewed nursing as a vocation and felt compelled to do it. They felt a strong desire to care for people and make a difference. Zysberg and Berry [5] argued that there is a deep and rewarding joy in caring for people.

Student's satisfaction contributes to intellectual, social, affective growth, classroom and college retention, academic performance, motivation and college persistence [2]. Satisfied students are more successful and dedicated to accomplish their goals than unsatisfied students [2,6]. A study done by Jaradeen et al. [1] found out that students were satisfied with the syllabus and grading method. They were also satisfied that nursing courses were helping them on how to care for their families, and how to communicate effectively. However, they were dissatisfied with college facilities, acquiring writing, critical thinking and problem solving skills. Studies done found a significant relationship between the clinical placement setting and overall

satisfaction where students who completed their clinical placement in a community setting expressed higher levels of satisfaction than their counterparts from bed based services [7,8]. The study by Happel [8] further showed that there was overall sense of satisfaction by student nurses with their clinical experience where eighty-eight percent of students enjoyed their clinical placement. They indicated that they felt welcomed, well supported and orientated, involved in patients care and regarded the nursing staff as highly skilled and respectful to patients [8]. Their relationship with the clinical supervisors increased their motivation to learn more.

Ansari [9] found out that student's socio-demographic characteristics affected their satisfaction where students with a higher average age were more satisfied than the younger ones. It was also determined that handicapped students were a little more satisfied than the others. Ansari [9] also found out that satisfaction varies from program to program and from one institution to another.

#### Objective of the Study

The aim of the study was to determine students' socio-demographic factors that influence level of satisfaction with the training process among final year nursing students at the Kenya Medical Training College.

#### Research design

A mixed method was used which involved both quantitative and qualitative method.

### Sampling

A sample size of 341 final year students was computed using the formula as used by Fischer et al. Three hundred (300) students who consented to be included in the study filled the questionnaire.

### Data analysis

Data was processed stepwise and involved data validation, cleaning, coding and entry into Statistical Package for Social Sciences (SPSS) version 20.0 in order to generate quantitative and qualitative results. Descriptive statistics were computed to generate means, percentages, ranges and standard deviation and the results presented in form of frequency tables, bar graphs and narration.

Inferential statistics were generated using Pearson's coefficient and Chi-square test in order to determine the relationship between student factors and level of satisfaction with training. The level of significance was set at  $P < 0.05$ . Logistic regression model was also be used to analyze the predictors of satisfaction.

### Results

Students' gender, religion and marital status were established. Majority of the students were females (62.8%). Most of these students were protestants (53.7%), 36.3% were catholic faithful and 2.0% were Muslims. 84.7% of these students were single whereas 14.3% were married students (Table 1).

Demographic Information	Number of students (N=300)	Percent
Gender		
Male	112	37.3
Female	188	62.8
Religion		
Catholic	109	36.3
Protestant	161	53.7
Muslims	6	2.0
Others	24	8.0
Marital status		
Married	43	14.3
Separated	1	0.3
Single	254	84.7
Widowed	2	0.7

**Table 1:** Demographic information of the students

### Parents' demographic information

The parents' education levels and occupation established showed that, 41.7% of these students were from homes where the father had college education. 16.3% stated that their fathers had university education while 1.3% of the students had their fathers having vocational education. When asked to about their mothers' education,

35.7% of the students stated their mothers had college education, 6.0% had the mothers having university education.

### Occupation of the parents

Majority of the students 39.3% were from homes where the fathers were salaried, 32.75% were from homes where the fathers were farmers and 22.3% were from homes headed by business fathers. The mothers were mainly farmers (41.0%). 26.7% of the students had salaried mothers whereas 24.0% of the students had business mothers (Table 2).

Demographic Information of parents	Number of students (N=300)	Percent (%)
Fathers' education level		
Primary	49	16.3
Secondary	58	19.3
Vocational	4	1.3
College	125	41.7
University	49	16.3
Others	15	5.0
Mothers education level		
Primary	75	25.0
Secondary	81	27.0
Vocational	9	3.0
College	107	35.7
University	18	6.0
Others	10	3.3
Fathers' occupation		
Farmer	98	32.7
Salaried employee	118	39.3
Business	67	22.3
Unskilled laborer	6	2.0
Others	11	3.7
Mothers occupation		
Farmer	123	41.0
Salaried employee	80	26.7
Business	72	24.0
Unskilled laborer	17	5.7
Others	8	2.7

**Table 2:** Parents education levels and occupation.

### Student factors that influence levels of satisfaction with nursing training

#### Kenya certificate of secondary education (KCSE) grades obtained by the students

In their KCSE, majority of the students in the nursing colleges had obtained KCSE grade B- (minus). 47.7% obtained grade B-, 28.0% obtained KCSE grade C+, 10.3% had obtained grade B+ while the highest grade obtained was KCSE grade A- which was obtained by 3.7% of the students (Table 3).

KCSE grades obtained	Number of students (N=300)	Percent (%)
Grade A-	3	1
Grade B+	31	10.3
Grade B	12	4
Grade B-	143	47.7
Grade C+	84	28
Grade C	16	5.3
None committal	11	3.7

**Table 3:** KCSE grades obtained by the students.

#### Effect of the KCSE result on the students overall satisfaction with the teaching process of the nursing program

Chi square test for association was conducted on the students' performance in KCSE and the levels of their satisfaction with the teaching and learning process of nursing. All the students who had obtained KCSE grade A- were somehow satisfied with the teaching and learning process of the nursing program. Majority of those who had B- (67.2%), grade B (66.7%), grade B+ (51.7%), grade C (50.0%), grade C+ (75.9%) were satisfied with the teaching and learning process. The result showed that there was no significant variation in students satisfaction with the KCSE grades obtained ( $\chi^2=23.53$ ,  $P=0.171$ ) (Table 4).

		Overall satisfaction with the teaching and learning process of the nursing program				Total	
		Not satisfied	Somehow satisfied	Satisfied	Extremely satisfied		
Gender	Male	Count	0	30	68	6	104
		%	0.0%	28.8%	65.4%	5.8%	100.0%
	Female	Count	2	42	123	12	179
		%	1.1%	23.5%	68.7%	6.7%	100.0%
Total		Count	2	72	191	18	283
		%	0.7%	25.4%	67.5%	6.4%	100.0%

**Table 5:** Students' gender and the level of satisfaction with the teaching process of nursing program.

KCSE grade obtained		Overall satisfaction with the teaching and learning process of the nursing program				Total
		Not satisfied	Somehow satisfied	Satisfied	Extremely satisfied	
A-	Count	0	2	0	0	2
	%	0.00%	100.00%	0.00%	0.00%	100.00%
B-	Count	2	32	90	10	134
	%	1.50%	23.90%	67.20%	7.50%	100.00%
B	Count	0	4	8	0	12
	%	0.00%	33.30%	66.70%	0.00%	100.00%
B+	Count	0	12	15	2	29
	%	0.00%	41.40%	51.70%	6.90%	100.00%
C	Count	0	5	8	3	16
	%	0.00%	31.30%	50.00%	18.80%	100.00%
C+	Count	0	16	60	3	79
	%	0.00%	20.30%	75.90%	3.80%	100.00%
Total	Count	2	72	191	18	283
	%	0.70%	25.40%	67.50%	6.40%	100.00%

**Table 4:** Students' KCSE performance and the level of satisfaction with the teaching process of nursing program.

#### Students' gender and satisfaction with teaching and learning program

The gender of the students did not affect their overall satisfaction with the teaching and learning process of nursing program ( $\chi^2=2.110$ ,  $P=0.550$ ). Among the male students, 65.4% of the students were satisfied with the teaching and learning program whereas 68.7% of the female students were satisfied (Table 5).



### Sources of information about nursing career

The students were asked to mention their sources of information about nursing career. The main source of the information as stated by 36.3% of the students was from personal interaction with the nurses, 35.7% of the students had gotten information from their parents and relatives while 4.7% of the students obtained information from books and pamphlets (Table 6).

Sources	Number of students (N=300)	Percent (%)
Book and pamphlets	14	4.7
Media (TV, radio/newspaper)	48	16.0
Personal interaction with nurses	109	36.3
Career guidance teacher	11	3.7
Parents and relatives	107	35.7
Other sources	11	3.7

**Table 6:** Student sources of information about nursing career.

### Source of influence to join nursing training

To join nursing career, majority of the students (42.3%) were influenced by a Nurse role model, 36.0% of the students were influenced by parents and relatives, 9.3% were influenced by peers and friends, 4.3% were influenced by teachers and school counselors while 4.0% were influenced by other factors (Table 7).

Sources Influencing	Number of students	Percent (%)
Peers and friends	28	9.3
Parents and relatives	108	36.0
Teachers and school counselors	13	4.3
Nurse role models	127	42.3
Personal influence	12	4.0
Others	12	4.0

**Table 7:** Sources that influenced the students to join nursing training.

### Effect of the sources about nursing career and the students overall satisfaction with the teaching process of the nursing program

The students' information sources of the nursing career had a significant association on the students' satisfaction with the teaching and learning process of the nursing program ( $\chi^2=63.31$ ,  $P=0.000$ ). Most of the students, 45.5% who had learnt about nursing from career guidance teachers were extremely satisfied with the teaching and learning program. 74.5% of those who had gotten information about nursing career from personal interaction with nurses were satisfied with the nursing teaching and learning program while 58.3% of the students who got to learn about nursing career from books and pamphlets were satisfied with the teaching and learning program (Table 8).

Source about nursing career		Overall satisfaction with the teaching and learning process of the nursing program				Total
		Not Satisfied	Somehow satisfied	Satisfied	Extremely satisfied	
Books and pamphlets	Count	0	4	7	1	12
	%	0.00%	33.30%	58.30%	8.30%	100%
Media (TV, radio/newspapers)	Count	0	15	29	2	46
	%	0.00%	32.60%	63.00%	4.30%	100%
Personal interaction with nurses	Count	0	22	76	4	102
	%	0.00%	21.60%	74.50%	3.90%	100%
Career guidance teachers	Count	0	2	4	5	11
	%	0.00%	18.20%	36.40%	45.50%	100%
Parents and relatives	Count	0	27	69	6	102
	%	0.00%	26.50%	67.60%	5.90%	100%
Others	Count	1	2	6	0	9
	%	11.10%	22.20%	66.70%	0.00%	100%
Total	Count	1	72	191	18	282
	%	0.40%	25.50%	67.70%	6.40%	100%

**Table 8:** Students' sources of information on nursing career and the level of satisfaction with the teaching process of nursing program.

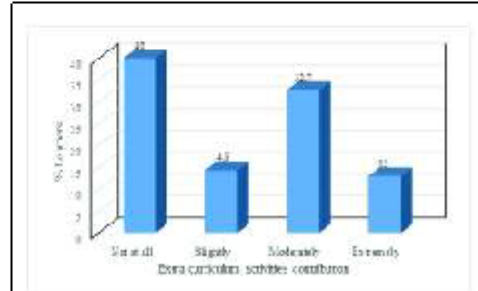
### Learners' involvement in extra-curriculum activities in the college

When they are in college, 48.3% of the learners were involved in extra-curriculum activities. These activities include; Sports like football, rugby, volleyball, handball, basketball, hockey, lawn tennis, table tennis, scrabble, badminton. Games like Athletics. Other activities like charitable work for example, visiting prisoners and children homes, participating in outreach services organized by the hospitals, participating in hospital meetings and also setting the immunization group. They were also involved in clubs like counseling.

Regarding the extent to which the learners participation in extra-curriculum activities contributed to their overall satisfaction with college experience, 13.0% of the learners felt that the activities extremely contributed to their overall satisfaction, 14.3% stated that it slightly contributed, 32.75 stated participation in the activities moderately contributed to their satisfaction while 40% of the learners felt that it did not contribute to their overall satisfaction at all (Figure 1).

The extent to which the learners participated in the extra-curriculum activities had significant influence ( $r=0.143$ ,  $P=0.026$ ) on their satisfaction in with the teaching and learning process of the nursing program. Students who felt that their participation in the

extra-curriculum activities had contributed to their satisfaction with college experience were satisfied with the overall teaching and learning process (Table 9).



**Figure 1:** Extent to which learners' participation in extra-curriculum activities contributed to overall satisfaction with college experience.

		Extent to which participation in these activities contributed to overall satisfaction with college experience	Overall satisfaction with the teaching and learning process of the nursing program
To what extent has your participation in these activities contributed to your overall satisfaction with college experience	r-value	1	0.143*
	P-value		0.026
	N	252	242
What is your overall satisfaction with the teaching and learning process of the	r-value	0.143*	1
	P-value	0.026	
	N	242	283

**Table 9:** Correlation result showing relationship between participation in extra-curriculum. \*Correlation is significant at the 0.05 level (2-tailed).

### Discussion

The student factors that influenced satisfaction with teaching and learning in nursing training were identified from the study. In the study, 90% of the students were Christians who were satisfied with their training in nursing. Religion is closely associated with helping relationships. This concurs with a study by Pollard et al. [10] which indicated that helping individuals was found to provide nurses with great satisfaction. According to Dal et al. [11] nursing is a sacred profession where the need to help others emerged as the main motive of some students aspiring to join nursing. The gender of the students did not affect their overall satisfaction with teaching and learning program. These findings are consistent with other studies (Robins et al. [12], Ziaie et al. [13], Tessema et al. [14], Ansari [9], Espeland et al. [15]). However, even with absence of significant differences in satisfaction according to gender, the trend of males and females reporting satisfaction was not stable. This could be due to the fact that

women are more lenient in their ratings than male students Tessema et al [14].

Information sources regarding the nursing career had a significant association with student's satisfaction with the teaching and learning process  $p=0.000$ . Students who entered into the training with adequate information about the career and what to expect during the training were extremely satisfied with the teaching and learning process. The students who got the information from the career guidance teachers were more satisfied than those who got the information from nurses or parents and relatives. Career guidance teachers are likely to give unbiased information about a career hence leaving the student to make an informed career choice.

The involvement of learners in the extra curriculum activities influenced the student's satisfaction positively where 60% of the learners were satisfied with overall teaching and learning process. Students who felt that their participation in the extra-curriculum activities had contributed to their satisfaction with college experience

were satisfied with the overall teaching and learning process. These findings are consistent with a study Deshields et al. [16] who argued that students who have a positive college experience will be more satisfied than those students who do not have a positive experience.

The entry grades into the training of nurses were found to have some influence on the satisfaction of the students while in training. The students who had the highest scores in KCSE (A-) were somehow satisfied with the teaching and learning process while those who scored lower were satisfied with the teaching and learning process in the nursing training. These findings are consistent with the findings of a study by Robinson et al [12]. A probable explanation to this could be that the expectations of those with higher entry grades may not have been met in the teaching and learning process of nursing, or they did not have adequate information on the careers that existed to help them make informed choices.

### Conclusion

The student related factors that influenced their satisfaction with the teaching and learning process included; student's information sources regarding the nursing career, the student's prior knowledge on nursing career roles and responsibilities and what to expect during training and involvement of learners in extra-curricular activities while in the college. However, there appears to be an inverse relationship between student's entry grades and level of satisfaction. Higher entry grades were associated with lower levels of satisfaction.

### Recommendations

Career guidance in schools should be strengthened to help students in making informed career choices which are not influenced by the parents, relatives or peer pressure.

Extra-curricular activities including sports should be encouraged in the schools and training colleges to help the students exercise and relax.

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## APPENDIX 11: SECOND PUBLICATION

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Research Article

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# Determinants of Satisfaction with Training Process among Final Year Nursing Students at Kenya Medical Training College

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### Abstract

**Purpose:** To identify the factors that influenced satisfaction with the training process among the final year nursing students in Kenya Medical Training College.

**Method:** This was a descriptive correlational study where both quantitative and qualitative data was collected from 300 students using a self-administered questionnaire comprising of closed and open ended questions.

**Results:** The quality of training was good. 93.6% of the students were satisfied while 0.7% was dissatisfied with the teaching and learning process. Results of regression analysis indicated that curriculum and instruction, teaching faculty, teaching learning resources, skills lab training and clinical supervision had a significant influence on teaching and learning process

**Conclusion:** During the training students acquired relevant skills needed to perform nursing duties such as critical thinking and problem solving skills, effective communication skills and self-confidence, ethical behavior and professional etiquette, emotional maturity and ability to work with other team members.

**Keywords:** Student Satisfaction; Teaching and Learning; Curriculum Instruction; Clinical Supervision

### Introduction

Student satisfaction is defined as meeting or exceeding the student's expectations of campus reality [1]. Although the requirements of nurse training courses are largely fulfilled when the system produces competent nurses and satisfies the standards of the consumers and regulators of health care, students' opinion on their training cannot be ignored if improvements in the quality of training and customer satisfaction are to be achieved [2]. There is a wider acknowledgement that the totality of a student experience of an institution is a useful perspective to adopt in student satisfaction and marketing of the institution [3]. Students in Kenya Medical Training College are regarded as valuable customers and hence their satisfaction with services during training is very important if the College is to remain relevant in the training of health care providers. Student's satisfaction can be an important quality indicator with respect to teaching and learning. This study was done to determine the factors that influenced satisfaction of student nurses with the training process. This will ultimately impact positively on nursing care delivery to patients and clients since satisfied students are

more likely to be successful and dedicated to accomplish their goals than unsatisfied students.

Understanding student's level of satisfaction at the end of training programme forms a basis of determining the quality of nursing education given as perceived by the students. Nursing education combines both theory and practical knowledge and skills. Learning depends not only upon how teachers have designed and structured their subjects and courses but also upon how their students perceive and understand this design and structure. When students have a positive attitude towards a certain subject or the subject lecturer, they tend to perform better in that area. The goal of integrating the practical and theoretical knowledge is spelt out in the nursing curricular. This is where students learn theory for a block of four to six weeks that is followed by clinical area placements for a period of six months. Studies done by [4,5] indicated that students were more satisfied with clinical practice than with the theoretical part of nursing program. Consequently [6] argued that despite the quality of education offered, excellence in

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customer service is the most important factor in determining the success of a learning program. Students who expressed satisfaction with training enjoyed their clinical placement; they felt welcomed, well oriented and supported [7]. There are many factors that affect nursing training like; inadequate infrastructure, inefficient use of educational techniques and technologies, and other problems specific to nursing. Advances in health services, changes in the conception of nurse's roles, professional responsibilities and the changing needs and expectations of the customer of health services have made it necessary to initiate quality studies in nursing education and practice in order to improve nursing education and practice [8]. This has a direct impact on the quality of nursing care given to patients and clients.

Effective teaching is multidimensional and no single criterion is sufficient in itself. It is characterized by giving feedback to students, understanding students' problems and the presentation of subjects in an interesting manner. While studying the effectiveness of different teaching behaviors in the clinical environment [4] identified four useful themes. Which include: supportive, evaluative, instructive and preparatory behavior? Support makes students know that they are cared about whereas evaluation gives a feedback on students' areas of performance and point out areas that require improvement. The clinical supervisors/preceptors in Kenyan training hospitals support students in the clinical learning experiences during practice periods undertake clinical teaching, supervise students work so as to ensure the quality of care and assess students' performance during these periods.

Research studies done by [9,10] on student nurses satisfaction with their training revealed various factors that influence their satisfaction. The module teams displayed good knowledge of the subject and that the references needed for the module were available in the library. According to [4] students were more satisfied with the challenging behavior of the clinical teacher than the nurse supervisor. They were also more satisfied with clinical practice than theoretical part of the nursing program [3]. Some students indicated that they were satisfied with touching people's lives, impacting someone else's life and changing people's lives for better. Learning to save lives was the most satisfying factor and the students anticipated being called to provide life saving measures regularly in their career [2]. In a research study done [11] students expressed excitement with how the application of nursing knowledge and skills directly impacted patients' health and well-being. They were delighted in seeing changes in people's condition resulting from their interventions.

Some students expressed that pursuit of nursing education and being a nurse was their lifelong dream with many expressing their sense of pride as nursing students who would eventually become practicing nurses [11]. These students received respect from family members, acquaintances and peers after choosing nursing as a career. In other studies, [9,12], students were found to have high satisfaction with nursing curriculum and instructions, accessibility of instructors and with members of the faculty of nursing who were concerned to protect students from hospital hazards. Studies by [13,14] revealed that certain factors exert positive and significant

influences on student satisfaction. These factors include, student background characteristics, participation in the community, access to and use of college facilities and services, faculty style of instruction, academic and social integration, learning activities, courses, quality and usefulness of education. The students were also satisfied with their training in that they were guaranteed of a job anywhere in the world.

### Objective of the Study

The aim of the study was to identify the determinants of satisfaction with the training process among final year nursing students at Kenya Medical Training College.

### Study variables

**Independent variables:** Faculty staff, curriculum and content delivery, learning environment (classrooms, library, skills laboratory, clinical placements areas and other support services).

**Dependent variable:** Perceived level of satisfaction

### Methods

The study used a descriptive co relational design which examined the relationship between the independent and dependent variables identified in the study. Cluster sampling was done where a cluster comprising of six campuses of Kenya Medical Training College was randomly sampled. All students who gave informed consent to participate in the study filled the questionnaire. This study was approved by University of Nairobi /Kenyatta National Hospital Ethical Review Committee. A structured questionnaire comprising of open and closed ended questions was used to collect data from the respondents. The questionnaires were hand delivered and distributed to the respondents in a classroom in the identified campuses and collected immediately they were filled. The return rate was 100%.

Data was processed stepwise and involved data validation, data cleaning, data coding and entry into Statistical Package for Social Sciences (SPSS) version 20.0 in order to generate quantitative and qualitative data. Descriptive statistics were computed to generate means, percentages, ranges and standard deviation and the results presented in form of frequency tables, bar graphs and narration. Inferential statistics were generated using Pearson's coefficient and Chi-square test in order to determine the relationship between student factors and institutional factors that influence level of satisfaction with training. The level of significance was set at  $P < 0.05$ . Logistic regression model was also used to analyze the predictors of satisfaction.

### Results

#### Gender influence on students' satisfaction on teaching and learning process

The gender of the students did not affect their overall satisfaction with the teaching and learning process of nursing ( $\chi^2 = 2.110$ ,  $P = 0.550$ ). Among the male students, 71.2% were satisfied with the teaching and learning programme whereas 75.4% of the female students were satisfied (Table 1).

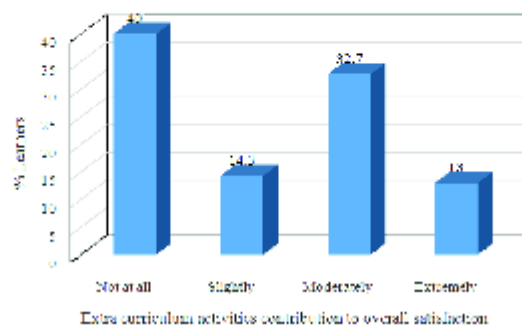
**Table 1:** Gender of students' and the level of satisfaction with the teaching/learning process.

			Overall satisfaction with the teaching and learning process of the nursing program				Total
			Not satisfied	Somehow satisfied	Satisfied	Extremely satisfied	
Gender	Male	N	0	30	68	6	104
		%	.0%	28.8%	65.4%	5.8%	100.0%
	Female	N	2	42	123	12	179
		%	1.1%	23.5%	68.7%	6.7%	100.0%
Total	N	2	72	191	18	283	
	%	.7%	25.4%	67.5%	6.4%	100.0%	

#### Learners' involvement in extra-curriculum activities in the college

While in college, 48.3% of the learners were involved in extra-curriculum activities. These activities include; Sports like football, rugby, volleyball, handball, basketball, hockey, lawn tennis, table tennis, scrabble, badminton and athletics. Other activities like charitable work for example, visiting prisoners and children homes, participating in outreach services organized by the hospitals, participating in hospital meetings and also setting the immunization groups. They were also involved in clubs like counseling. The extent to which the learners' participation in extra-curriculum activities contributed to their overall satisfaction with

college experience was analyzed. 13.0% of the learners felt that the activities contributed extremely to their overall satisfaction, 14.3% stated that it slightly contributed, 32.75 stated participation in the activities moderately contributed to their satisfaction while 40% of the learners felt that it did not contribute to their overall satisfaction at all (Figure 1). The extent to which the learners participated in the extra-curriculum activities had significant influence ( $r = 0.143$ ,  $P = 0.026$ ) on their satisfaction with the teaching and learning process of the nursing program. Students who felt that their participation in the extra-curriculum activities contributed to their satisfaction with college experience were satisfied with the overall teaching and learning process.



**Figure 1:** Extent to which students' participation in extra-curriculum activities contributed to overall satisfaction with college experience.

#### Correlation analysis on the clinical supervision factors and the students' satisfaction with teaching and learning process

Students who were satisfied with the commitment by the clinical supervisor were significantly satisfied with teaching and learning process of the nursing programme ( $r=0.203$ ,  $P=0.001$ ). Similar significant relationship was recorded in other clinical supervision items tested ( $P < 0.05$ ) except on availability of the hospital equipment and supplies ( $r = 0.084$ ,  $P = 0.160$ ).

#### Overall satisfaction with the teaching and learning process of the nursing program

The students overall satisfaction with the teaching and learning process was established. The result revealed that, besides the

other minor issues that rose in the colleges, 6.0% of the students were extremely satisfied with the learning process, 63.7% of the students were satisfied while 24% were somehow satisfied. However, 0.7% of the students were not satisfied with the teaching/learning process in the colleges (Figure 2). Correlation analysis on the students overall rating and the students satisfaction with teaching and learning process showed that, there was a significant relationship between the overall rating of the quality of training ( $r = 0.374$ ), adequacy of training facilities ( $r = 0.224$ ), acquisition of relevant knowledge and competencies ( $r = 0.193$ ), extra-curriculum activities ( $r = 0.215$ ) with the students' overall satisfaction with the teaching and learning process of the nursing programme. Those who indicated the ratings were good were the students who were satisfied with the teaching process hence the positive correlation values (Table 2).

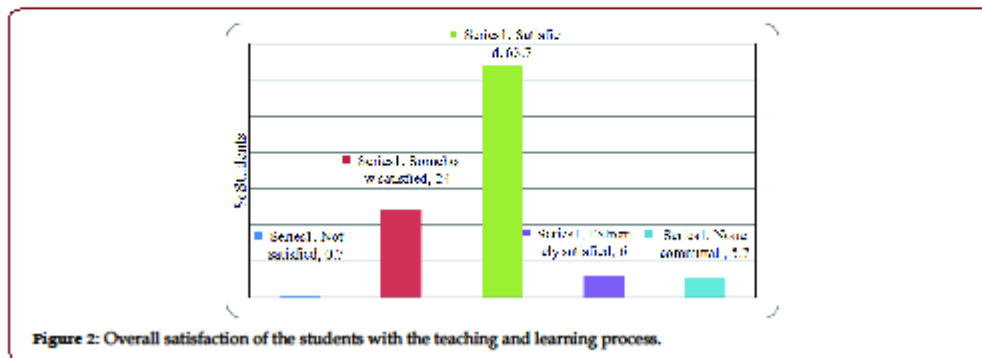


Figure 2: Overall satisfaction of the students with the teaching and learning process.

Table 2: Correlation matrix of the students overall rating with students' satisfaction with teaching and learning process.

		1	2	3	4	5	6
Overall satisfaction with the teaching and learning process	r-value	1	.374(**)	.224(**)	.234(**)	.193(**)	.215(**)
	P-value	.	.000	.000	.000	.001	.000
Overall quality	r-value	.374(**)	1	.459(**)	.459(**)	.382(**)	.249(**)
	P-value	.000	.	.000	.000	.000	.000
adequacy of the training facilities	r-value	.224(**)	.459(**)	1	.550(**)	.438(**)	.398(**)
	P-value	.000	.000	.	.000	.000	.000
trainers ability	r-value	.234(**)	.459(**)	.550(**)	1	.623(**)	.399(**)
	P-value	.000	.000	.000	.	.000	.000
acquisition of relevant knowledge and competencies	r-value	.193(**)	.382(**)	.438(**)	.623(**)	1	.324(**)
	P-value	.001	.000	.000	.000	.	.000
extra-curricular activities e.g sports, clubs etc.	r-value	.215(**)	.249(**)	.398(**)	.399(**)	.324(**)	1
	P-value	.000	.000	.000	.000	.000	.
	N	280	278	278	279	280	282

\*\* Correlation is significant at the 0.01 level (2-tailed).

1. overall satisfaction with the teaching and learning process of the nursing program; 2. Overall quality; 3. adequacy of the training facilities; 4. Trainers ability; 5. Acquisition of relevant knowledge and competencies; 6- extra-curricular activities e.g sports, clubs etc.

**Discussion**

The student factors that influenced satisfaction with teaching and learning in nursing training were identified from the study. The learners' participation in extra curriculum activities such as sports had significant influence on their satisfaction in the learning process. Exercise and sports helps in relaxation of the mind and body thereby preventing mental fatigue and making life enjoyable. Similar findings were reported by [15] who argued that campus life outside the classroom was important to students' satisfaction as educational experience. The orientation the students received concerning the expectations of the course, the provision of course outlines, organization and flow of course content, assessing methods and examination grading system all contributed to the students satisfaction with the teaching learning process. The course assessment methods have been found to be a significant factor in overall students' satisfaction in a number of studies [15-17].

Teaching faculty members significantly influenced satisfaction of nursing students with teaching learning process positively

The relationship between the faculty and students is of extreme importance for planning and implementation of learning activities. This is where the students are involved in decision making in areas concerning their learning. Faculty performance and students experience are important variables that influenced students overall satisfaction. The students who received effective meaningful academic coaching felt more satisfied. These findings concur with a study by [18]. In the skills laboratory the students were happy and satisfied that the learning objectives were available and the students knew what their expected behavior was during the training. Training manuals were available for their use and the committed lecturers used the training manuals to teach the students through demonstrations of procedures and allowed them time for return demonstrations. Individualized coaching was considered and assessments in the skills lab were also rated as objective. The student nurses reported satisfaction with skills laboratory training where there was concurrence of theory and practical. Similar findings were cited in a previous study by [19].



The clinical supervisors and mentors are instrumental in clinical teaching, mentorship and role modeling. They give individualized coaching, co-assess and give feedback to the students while in the clinical areas. Faculty team also follows up the students in clinical areas and receives reports about the student performance in the clinical areas. This study showed that students were satisfied with commitment of clinical supervisor's, availability of clinical cases (patients and clients), and objectivity of clinical assessments. Students who were satisfied with commitment of clinical supervision were significantly satisfied with teaching and learning process and similar significant relationship with teaching and learning process was recorded with supervision of items tested in the study these findings concur with those of previous studies [7,10].

The study revealed that students were satisfied with the learning environment. That is the classrooms were conducive with adequate lighting and ventilation, library facilities, skills laboratory and computer laboratory were available. However they were more satisfied with availability of teaching/learning resources than the infrastructure. Those not satisfied cited congestion in these facilities and recommended expansion of the infrastructure to accommodate the growing population of college students. The students' satisfaction was found to be positively related to all items comprising the learning environment in the school of nursing. Similar findings were reported by [9,20]. The final year student nurses were happy with the overall training. They felt well prepared having acquired relevant skills needed for the job such as critical thinking and problem solving skills, effective communication skills and self-confidence, ethical behavior and professional etiquette, emotional maturity and ability to work with other team members. The final year nursing students were satisfied that there were prospects of employment. These findings are similar to those of previous studies [9,12].

In the overall rating the students felt that the quality of training was good. 93.6% of the students were satisfied with the teaching and learning process while 5.7% were non-committal. However, only 0.7% of the final year nursing students were dissatisfied with the training process. Further the results of regression analysis indicated that the following factors had a significant influence on teaching and learning process: curriculum and instruction, teaching faculty, teaching learning resources, skills lab training, clinical supervision, other support services and involvement in extra curriculum activities like sports and clubs. It can be implied that the satisfaction of the students with these tested factors is what contributed to the 93.6% of final year nursing students expressing satisfaction with teaching and learning process.

### Conclusion

The teacher based factors that influenced final year nursing students' satisfaction with teaching and learning process were curriculum instruction method, and the relationship between faculty members and their students. The environmental factors that influenced student nurses level of satisfaction were the teaching and learning resources and other related support services. Overall

only 6% of the students were extremely satisfied with the teaching and learning process, 87.7% of them had some level of satisfaction while 0.7% was dissatisfied. However, 5.7% of the respondents were non-committal.

### Recommendation

There is need to carry out further research to determine whether satisfaction with the teaching and learning process translates into better performance in nursing practice after graduation.

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