UNIVERSITY OF CAPE COAST

THE ROLE OF THE CLINICAL ENVIRONMENT AND SUPERVISION IN STUDENTS' SATISFACTION WITH ROTATION PRACTICE EXPERIENCE IN THE UNIVERSITY FOR DEVELOPMENT STUDIES

BY

ALHASSAN BASOUR ADAM

Thesis submitted to the School of Nursing and Midwifery of the College of Health and Allied Sciences, University of Cape Coast, in partial fulfilment of the requirement for the award of Master of Nursing

JULY 2018

DECLARATION

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: …… Date: …….

Name: Alhassan Basour Adam

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: …..... Date: …….

Name: Professor Akwasi Kumi-Kyereme

Co-Supervisor's Signature: ……. Date: ……

Name: Dr. Andrew Adjei Druye

ABSTRACT

Clinical rotation experience is an integral part of the nursing curriculum and crucial component of nursing education, which transforms theoretical knowledge to practice. However, due to the complex nature of the clinical learning environment as a social entity, it often influences student-learning experience. This study was to assess the role of clinical learning environment and supervision in Nursing and Midwifery students' satisfaction with rotation practice experience in University for Development Studies (UDS), Tamale. A cross-sectional analytic survey design was used to assess students' satisfaction with clinical rotation experience from UDS Tamale campus. Participants were selected using stratified random sampling technique. SPSS was used to analyze data, using frequencies, percentages, and means. Inferential statistics such as Fisher's exact test, linear regression and Spearman's Correlation were used. The result showed that the level of nursing and midwifery students' satisfaction with clinical rotation experience was high (65.6%). Similarly, the level of students' satisfaction with the clinical supervision and clinical learning environment were also high (60.3% and 63.5% respectively). The major factors identified, that influence students clinical rotation experience were clinical supervision, clinical learning environment and its dimensions (pedagogical atmosphere of the ward environment, leadership style of nurse manager, and premises of nursing in the ward). These findings call for the need for nurse educators and clinicians to pay more attention to the areas highlighted in this study.

KEY WORDS

Nursing/Midwifery students

Satisfaction

Clinical rotation experience

Role of Clinical supervision

Clinical learning environment

ACKNOWLEDGEMENT

I wish to express my sincere appreciations to my supervisors, Professor Akwasi Kumi-Kyereme, Department of Population and Health, and Dr. Andrews Druye, of the School of Nursing and Midwifery, both in University of Cape Coast, for their enormous support, professional guidance, and encouragement throughout this thesis.

My deepest appreciation also goes to the Sam and Emilia Brew-Butler, GRASAG-UCC Research Fund Award Committee, for recognizing the need to accept and support my proposed research work. I acknowledged that your support really contributed significantly to the timely completion of this thesis.

My special thanks also go to Mr. Afizu Alhassan, a tutor in Kpembe Nursing and Midwifery Training College Salga, Mr. Osman Wahab, a Clinical Coordinator in Tamale Teaching Hospital, and Mr. Amandus, a research assistant in School of Nursing and Midwifery UCC, for their enormous guidance and support, especially during my data analysis period.

I also acknowledge the support of University for Development Studies, Tamale campus, for accepting to be my study site. Madam Hilder, a lecturer in UDS, Hajia Teshiayio Muhammed, principal of Midwifery Training College Bolgatanga, I am grateful for your diverse support.

To my wife and three kids, I am indebted to you for enormous support. May the Almighty Allah bless you.

Finally, to all those who contributed in diverse ways, thank you and may God bless you all.

DEDICATION

To my entire family.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CLE	Clinical Learning Environment
CRE	Clinical Rotation Experience
CS	Clinical Supervision
TTH	Tamale Teaching Hospital
UDS	University for Development Studies
GRNA	Ghana Registered Nurses Association
UCC	University of Cape Coast
IRB	Institutional Review Board
NSNEM	Neumann System Nursing Education Model
PMCNE	Proposed Model for Clinical Nursing Education
NLN	National League of Nursing
CLEI	Clinical Learning Environment Inventory
NT	Nurse Teacher

CHAPTER ONE

INTRODUCTION

Background to the Study

Clinical experience is an important aspect of nursing and midwifery education as it is the transformation of theoretical knowledge into practice and the cornerstone of nursing as a health profession (Atakro, 2017; Cuellar-Rodriguez et al., 2009; Killam & Heerschap, 2013; Lambert & Glecken, 2005; Lawal, Weaver, Bryan, & Lindo, 2016). Clinical nursing education is teaching and learning which takes place near a patient (Mantzorou, 2004) and prepares nursing and midwifery students for their professional roles and affords them opportunities for applying the knowledge, concepts, and skills they have learnt in classrooms (Esmaeili, Cheraghi, Salsali, & Ghiyasvandian, 2014). Moreover, there is global evidence to support the fact that effective clinical education and training contributes to quality nursing education and that both lead to improved patient outcomes (Al-kandari, Vidal, & Thomas, 2009; Cowan, Norman, & Coopamah (2007).

The purpose of clinical rotation is for the students to learn how to perform physical and psychosocial assessments, interact with clients, families and staff, administer medications and perform other needed skills, develop critical thinking skills; and plan for nursing care in the clinical environment (Presbyterian University College, 2007 as cited in Awuah-Peasah, Sarfo, & Asamoah, 2013). These are necessary for a successful clinical learning experiences and good patient management. In addition, the clinical setting is the most influential context for acquiring knowledge and nursing skills (Chan, 2003).

However, acquiring the needed knowledge and skills in the clinical setting does not come easily. The clinical learning environment is a complex social entity that influences student learning (rotation) experience during clinical rotation. It is made up of a network of interacting forces that influence student-learning experiences. It has been described as a major source of anxiety and stress among nursing students globally (Goff, 2009; James & Chapman, 2009; Sharif & Masoumi, 2005).

The cornerstone for successful clinical rotation experience is high-quality clinical supervision of nursing students (Health Workforce Australia [HWA], 2010, 2011). This concept can be traced back to Florence Nightingale who instructed that student nurses should be trained under the direct supervision of experienced nurses who were "trained to train" (Franklin, 2013). However, clinical nursing education in Ghana is currently facing challenges of poor working relations between hospitals and health training institutions, inadequate preceptor preparations, and inadequate supervisions (Atakro & Gross, 2016). Anecdotal notes from stakeholders shows some shortfalls in nursing education due to poor clinical learning (rotation) experience resulting in a large gap between theory and practice, and inadequate clinical rotation experience.

What is also worrying is that despite the recognition of the importance of the complex social context of the clinical environment, the influence of the clinical learning environment on the achievement of student learning experience during clinical rotation has not been assessed critically. And only a few studies have focused on the perceptions of students nurses on their clinical rotation experiences and learning outcomes (Al-kandari, Vidal, & Thomas, 2009; Lawal et al., 2016).

Exploration of the clinical learning environment gives insight into the educational functioning of the clinical areas and allows nurse teachers to enhance students' opportunities for learning (Chan, 2002; Sharif & Masoumi, 2005). Moreover, as universities continue to increase nursing student's intake to meet the demand for an expanded workforce and healthcare infrastructure, it is crucial to identify factors, which have the greatest influence on student progression in both theory and practice. However, previous research has focused primarily on factors that influence nursing students' academic performance (Pitt, Powis, Levett-Jones, & Hunter, 2012) to the neglect of factors that influence students' satisfaction with clinical rotation experience. This has therefore created a paucity of studies in the area of factors that influence students' satisfaction with clinical rotation experience. Additionally, considering the pivotal role of the clinical learning environment in training the nurse, there is an urgent need for further exploration of that area.

Problem Statement

Several studies have reported faculty shortages and large student numbers, which in turn has a negative influence on nursing and midwifery students' clinical experience (Bvumbwe, 2016; Sawatzky & Enns, 2009). Other studies have stressed a significant association between faculty competence and nursing students' clinical learning experience, where poor faculty competence has not done well to enhance nursing students learning experience (Ali, 2011; Bvumbwe, 2016; Helgesen, Gregersen, & Roos, 2016). Commitment on the side of clinical faculty/supervisor has also been reported to be on a decline (Henderson, Twentyman, & Eaton, 2010; Ohaja, 2010) and this undoubtedly affects nursing and midwifery students' clinical rotation experience. As a

consequence, nursing students have often reported poor clinical supervision in their practice environment (Bvumbwe, 2016; Sharif & Masoumi, 2005).

Also, complaints of dissatisfaction with clinical experience or nursing training in the clinical setting has been reported due to the vulnerability of nursing and midwifery students to several factors in clinical environment (Nayeri, Nazari, Salsali, Ahmadi, & Hajbaghery, 2006) which requires an immediate assessment. Corroboratively, concerns have been expressed in recent times about newly qualified nurses performing below the expected standard of nursing practice. During the past decade, the image of nursing in Ghana has fallen at a steady rate due to the poor nursing care rendered by qualified nurses to patients (Ghana Registered Nurses' Association [GRNA], 2011). This has been and continues to be a major concern for all, especially nurse educators in Ghana.

Additionally, complaints of dissatisfaction with available clinical models during training have been outlined by students as being a reason for their poor clinical learning experience which places severe anxiety on students in the clinical learning environment (Lubbers & Rossman, 2017). While a rich amount of literature exists in the developed world to address these challenges associated with students clinical learning experience, scanty evidence exists in the developing and under developing areas where there is already a shortage or unavailability of standard clinical teaching and learning models (Ali, 2011; Graham, Lindo, Bryan, & Weaver, 2016)

Moreover, a methodological gap exists with respect to the existing studies. Most studies are qualitative and explanatory in nature and do not explore the construct (Clinical Rotation Experience) to ascertain the magnitude

of the challenges with quantitative approaches. Even for those studies that have explored quantitative approaches, it is common to find the use of statistical tools that are suitable for data that are normally distributed, and do not consider the fact that such approaches will not adequately measure a construct with deep latent content, herein, student clinical rotation/learning experience. Thus, it would be more evident to use composite medians instead of means to measure such construct.

In furtherance, many studies have been done in United States (US) exploring factors that have potentially impacted on undergraduate nursing and midwifery student's progression and completion (Jeffreys, 2007). However, a major gap in the literature is the exploration of factors that influence students' clinical rotation experience (Cowan et al., 2007). Yet, the practical nature of nursing warrants an immediate assessment of factors that influence students' clinical rotation experience.

Objectives of the Study

The main objective of this study is to determine factors influencing satisfaction with clinical rotation experience of undergraduate nursing and midwifery students at the University for Development Studies (UDS), Tamale. The specific objectives of this study are to:

1) determine the level of nursing students' satisfaction with clinical rotation experience
2) explore the role of clinical supervision on nursing students' satisfaction with clinical rotation experience
3) determine the role of clinical learning environment on nursing students' satisfaction with clinical rotation experience.

Research Questions

1) What is the level of nursing students' satisfaction with clinical rotation experience?
2) What role does clinical supervision play on nursing students' satisfaction with clinical rotation experience?
3) What role does clinical learning environment plays on the nursing students' satisfaction with clinical rotation experience?

Hypothesis of the Study

1) There is no statistically significant association between clinical supervision and students' level of satisfaction with clinical rotation experience.
2) There is no statistically significant association between the clinical learning environment and students' level of satisfaction with clinical rotation experience.

Significance of the Study

Considering the fact that there is a paucity of studies in developing countries on factors that influence student nurses' clinical rotation experience, the findings from this study will add up to the nursing education literature and help fill up the existing gap in the literature. The study will also bridge the methodological gap in measuring the construct (Clinical rotation experience).

In addition, the study would provide invaluable data and information to stakeholders such as Ministry of Health (MOH), Ghana Health Services (GHS), Nursing and Midwifery Council (NMC), Nursing Training Institutions and health facilities in their attempts to formulate policies and strategies to enhance clinical learning experiences of student nurses.

Similarly, the findings of this study will provide nurse educators with a meaningful understanding of the experiences of clinical rotation practice. Nurse educators can use the knowledge on experiences of the students in clinical rotation placement to plan learning opportunities in such a way that learning and practice of nursing skills are successful and less worrying to student nurses. This can also aid nurse educators to develop an effective clinical teaching strategy in nursing education to resolve the problems nursing students face in clinical education. This would successfully lead to a more skilled and competent workforce that in turn will improve clinical rotation experiences (outcomes) such as reducing clinical risk, providing more intervention that is effective and increasing quality of care for clients.

Corroboratively, Gabb and Keating (2005) asserted that, to achieve success in clinical education, nurse educators should collaborate with employers to offer creative clinical rotation experience for students and maximize readiness for the work world.

In addition, the study would be of benefit to student nurses themselves, as it would help them to better understand and deal with their fears and anxieties about clinical learning, and offer practical suggestions on how to excel in the clinical learning environment.

Finally, the public also stands to benefit from the study because improved clinical learning will ultimately lead to the production of nurses who are better equipped with knowledge and skills to deliver the best of nursing care to the public.

Delimitations

This study was conducted among third and fourth year nursing and midwifery students in University for Development Studies (UDS) who had some number of clinical rotation practice experiences in the ward. This is because the third and fourth year students might have had enough clinical rotation experience to share with the researcher. First and second year students were exclude due to the fact that it was possible they might not have been in position to answer the research questions appropriately since they have little experience concerning clinical practice in the ward. The participants were recruited from only one University, UDS, within Tamale Metropolis to involve in this study. Other Health Training Institutions within the Metropolis was not involved in the study.

Also, Nursing and Midwifery Council of Ghana and Ministry of Health mandated clinical rotation practice for undergraduate nursing and midwifery students as a fundamental requisite to become a qualify registered nurse or a midwife. The study intended to explore factors influencing undergraduate nursing and midwifery students' satisfaction with clinical rotation experience. The variables (factors) assessed include clinical supervision, clinical learning environment, pedagogical atmosphere in the ward, nurse manager leadership style, and premises of nursing in the ward among others were the factors influencing clinical rotation practice

Limitations of study

The study was conducted at the UDS Nursing and Midwifery Department, Tamale campus. It is recognized that finding from this study could be peculiar to UDS, and may not be generalized to other Universities.

Moreover, due to the small number of participants involved in the study, the study may have limited applicability. The study was also limited to third and fourth year nursing and midwifery students at one university. Therefore, the findings may not be generalized to all nursing and midwifery students in Ghana.

Operational Definitions

- Nursing students/midwives: Individuals who are enrolled in a nursing education program to be become registered nurses or midwives.
- Clinical learning environment (CLE): CLE is an authentic clinical space where students practice their clinical skills with the outcome of professional competence development and an eventual readiness to become registered nurses. It includes everything that surrounds the nursing work, including the clinical settings, the staff and the patients (Hathorn, 2006).
- Clinical learning outcome: Learning outcomes describe what students have achieved during their clinical rotation/placement and which influence the way they are able to demonstrate in terms of knowledge, skills, and values upon completion of a course, a span of several courses, or a program (Al-kandari et al., 2009; Chan, 2002)
- Satisfaction with clinical rotation (placements experience): Is a desire to achieve a set of predetermine knowledge, skills, and attitude and competency (experiences) in clinical environment, necessary to become a qualify registered nurse or midwife for a specific period. Clinical coordination unit of the health training institutions usually schedules nursing and midwifery students for a specific task within a certain academic period (Rajeswaran, 2016)

- Clinical practice: A period of transition, which allows the student to consolidate the knowledge and practice skills acquired during fieldwork practice in a working situation
- Clinical supervision: A role where the experienced registered nurse supervises and facilitates student learning through guidance and support in the clinical arena, providing links between theory and practice, and undertakes formative and summative assessments (Franklin, 2013)
- Preceptor/Supervisor: A registered nurse/midwife who has undertaken preparation for the role and who supports undergraduate nursing or midwifery students in their learning in the practice setting and assumes the role of supervisor and assessor of the students' achievement of clinical learning outcomes and competence (Bengtsson & Carlson, 2015).

CHAPTER TWO

LITERATURE REVIEW

Introduction

The chapter presents a review of the relevant literature on clinical rotation experience of undergraduate nursing and midwifery students, and describes the conceptual framework supporting the study. The literature review was organized within the realms of the construct of clinical rotation experience as well as the objectives of the study. The review was done based on the objectives. Firstly, it is commenced with clinical rotation experience (CRE), and considers factors influencing CRE in clinical nursing education. In addition, the review addresses clinical supervision (CS) and barriers to CS. More so, clinical learning environment (CLE) is reviewed, its influences on CRE, characteristics of contemporary learning environment, and challenges nursing students faced in CLE. Additionally, brief historical review on nursing education in Ghana is looked at. Lastly, various theoretical models on clinical nursing education are discussed and then the conceptual framework is described.

This was the output of a thorough hand search for books, journals articles publications. Electronic databases such as Medscape, Cinharl/Hinari and Ebscohost, were used for publications on the subject area. The search was limited to literature, which had been peer-reviewed, and written in English language between the years 1995 and 2017.

Frequently used key words include “Assessing/determining/exploring OR factors/predictors/determinants OR influencing/affecting/impacting OR cli nical/hospital OR satisfaction/approval/contentment/agreements/pleasure

OR supervision/guiding OR clinical learning environment/clinical environment OR learning outcomes AND student nurses/midwives/ OR clini cal rotation/placement OR experience/skills/knowledge/practice."

Clinical Rotation (Practice) Experience

Clinical rotation (placement) experience (CRE) is an important aspect of nursing education as it is the transformation of theoretical knowledge into practice, and the foundation of clinical nursing education in Ghana. There is global evidence to support the fact that effective clinical education and training contribute to quality nursing education and that both lead to improved patient outcomes (Al-kandari, Vidal, & Thomas, 2009; Cowan, Norman & Coopamah, 2009) as well as nursing and midwifery students CRE. Clinical rotation experiences are planned experiences for a specific nursing educational course, and experiences gained by the nursing and midwifery students in hospitals, clinics, health care centers and in the community (Rajeswaran, 2016). It can also said to be the settings where students are assigned for particular clinical learning experiences (Al-kandari, Vidal, & Thomas, 2009). CRE is an important exercise in that; it provides nursing and midwifery students with the opportunity to combine cognitive, psychomotor, and affective skills. The exposure to positive clinical rotation practice has an influence on nursing and midwifery students' knowledge, skills, attitudes, and interest in nursing patients (Al-kandari et al., 2009; Henderson et al., 2007).

Corroboratively, Lofmark and Wikblad (2001) enumerated a number of opportunities and benefits that CRE can provide for nursing and midwifery students. They include: 1) the opportunity and privilege of direct access to patients' care. 2) The opportunity to experience the world of nursing and

midwifery and to reflect on, and to speak to others about what is being experienced. 3) The reference system for the student to critically evaluate practice, predict future actions and through reflection, reveal the thinking that underpins nursing actions. 4) The motivation essential to acquire the skills critical to the delivery of quality patient care. 5) The environment to enable them understand the integrated nature of practice, and to identify their learning needs, and 6) Opportunities to take responsibility, work independently and receive feedback on their practice.

It has been established in nursing education literature that clinical rotation experiences are challenging despite the fact that quality clinical rotations are important to the development of competent healthcare professionals (Levett-Jones, Fahy, Parsons, & Mitchell, 2006). On this background then, it is relevant for nurse educators in Ghana to embark on research to explore further factors that greatly has effect on CRE of undergraduate nursing and midwifery students in Ghanaian setting. This study is to contribute in that regards.

Factors Influencing Students' Satisfaction with Clinical Rotation Experience

It is an indisputable fact that clinical rotation experience is an important aspect of clinical nursing education globally. However, despite its relevance, numerous factors influence CRE of nursing and midwifery students. To start with, a study done by Kevin (2006), identified a number of factors that influence the effectiveness of student clinical rotations/placement experience. They include students' experiences such as students' stress, the application of theory to practice and student advocacy, the perspectives of the clinical teacher, the

assessment of competency being subjective, differences in expectations, the complexity of the assessment tools, the learning environment, and the relationship of supervising staff with the students, and the clinical responsibilities of the clinician.

In addition, inexperienced supervisors (preceptors) have difficulty in comprehending the assessment process and do not apply all the recommended assessment strategies when assessing students in clinical practice (McCarthy & Murphy, 2008). Similarly, the growing number of students being admitted into the nursing programs has resulted in the overcrowding of students in clinical sites, making it challenging for a positive clinical rotation experience. In addition, clinical teaching can significantly be influenced by external stakeholders involved in nursing education (Asirifi, Mill, Myrick, & Richardson, 2013). These include Ministry of Health (MOH- policymaking body), Ghana Health Services (GHS- policy implementers), Nursing and Midwifery Council of Ghana (NMC- maintaining standards of nursing practices), as well as the Ghana Registered Nursing and Midwifery Association (GRNMA-welfare of nurses and midwives). For instance, in order to address the shortage of nurses between the year 2007 and 2011, there was a policy to increase the intake of nursing and midwifery students in nursing schools by more than 200% (WHO & Global Workforce Alliance, Ghana, 2008) with little increase in human and material resources allocated to nursing education. Supervision of students in the clinical setting became more challenging and more difficult due to a sudden increase in students' enrollment into training colleges and universities. For instance, one preceptor/supervisor may supervise

more than five students at a time while still carrying his or her duty as a caregiver. (Eliasson et al., 2017).

Again, shortage of clinical sites for clinical practice influences CRE of nursing and midwifery students. The government policy to increase students' enrollment to the health training institutions between 2007 and 2011, without the same corresponding increase in health care facilities, worsen the situation of clinical sites in Ghana. Students are overcrowded in few available clinical sites making it less conducive for patients. Also, shortage of nurse educators, and insufficient teaching and learning resources are all issues warring satisfaction with CRE of undergraduate nursing and midwifery students in sub-Saharan Africa. In addition, increased faculty responsibility and distance to clinical practice sites have resulted in reduced clinical contact hours for students in most colleges and universities. The poor or negative attitude of nurses toward students has also been reported (Msiska, Smith, & Fawcett, 2014a).

In addition, students have cited experienced staff nurses shortages as an important issue leading to problems such as students lacking direction in their learning and feeling they are a burden to other staff' (Robinson, Andrews-hall, & Fassett, 2007). Given the relentless pressure on the health service generally, supporting undergraduates during clinical rotation has become a challenge for nurse educators, nurse managers, and supervising ward nurses (Preceptors) who are given the direct responsibility for service delivery and providing clinical support, supervision and evaluation to undergraduate nursing students.

In furtherance, Killam and Heerschap (2013) espoused that effective and satisfactory clinical experience is gained through a supportive clinical environment, which includes the atmosphere of the clinical rotation (placement)

unit, and the collaborative relationships between students and clinical staff (supervisors) and mentors (Chaun & Barnett, 2012). Based on a quasi-experimental study of 62 Australian nursing students, elements such as good mentoring relationship with the clinical staff, and opportunity to practice were issues reported as influential factors in students' learning in the clinical learning environment (Henderson, Twentyman, Heel, & Lloyd, 2006). The support given to students by the nursing staff in the clinical setting also plays an important role in the achievement of their learning objectives (Chuan & Barnett, 2012; Nash, Lemcke, & Sacre, 2009).

To add to the above factors, a study conducted by Asirifi et at (2017), also revealed a number of factors that can greatly influence clinical rotation experience (CRE). They include: a) more effective clinical teaching and supervision; b) adequate equipment for practice; c) meaningful evaluation of performance; d) enhanced collaboration between the nursing school and clinical settings; and, e) reduced travel time to clinical opportunities (due to long distance to clinical sites).

Effective clinical supervision (CS) and teaching can influence nursing and midwifery students' satisfaction with CRE. CS is needed for patient safety and to build students' competencies in relation to high quality and sufficient hands-on-practice opportunities; psychomotor skills; communication skills; integration of knowledge into practice; evidence-based practice; and opportunities for varied clinical experiences (Asirifi et al., 2013). While aware that attention to the above-mentioned components is critical for effective clinical rotation experience, it is acknowledged in nursing literature about deficits in current clinical teaching and supervision models in practice.

Comments revealed that opportunities for hands-on practice or for direct supervision by a clinical faculty were woefully inadequate, leading to dissatisfaction of students bedside teaching (Eliasson et al., (2017).

More so, inadequate equipment both in the educational institutions and clinical practice settings is a huge barrier to effective CRE in Ghana (Asirifi et al., 2017). Most of the skills laboratory in the training institutions where students experience demonstrations and counter-demonstrations are virtually empty. Based on the researcher's personal experience, most of the equipment are not available in the skills laboratory, making it difficult for students to acquire skills needed for contemporary clinical practice. The situation is not different from the clinical environment. In order to support student learning, some clinical settings demand that students provide their own items such as thermometers, blood pressure (BP) apparatus, clinical thermometers, stethoscopes, gloves, and hand towels in order to engage in hands-on opportunities. These items impose financial constraints on students, hence affecting their rotation (learning) experiences.

Furthermore, lack of conducive teaching and learning environment is also outlined in literature as an obstacle to fruitful CRE. There is the need for good interpersonal relationships between students and staff nurses for positive clinical experiences to occur (Asirifi et al., 2017; McCarthy & Murphy, 2008). In a particular study, one of the undergraduate nurses (participant) reported that "I will never forget my first day in the medical ward in my first year, when a nurse said to me: "you are a degree nurse and you don't know how to check vital signs. Diploma nurses are even better off". I nearly got discouraged if I had not received reassurance from colleague students (Asirifi et al., 2017). What

is more, the findings from the cross-sectional descriptive study conducted by Lawal and colleagues (2016) highlighted the importance of effective interpersonal relationship between clinical staff and nursing students in creating a positive learning environment to enhance positive CRE of nursing and midwifery students. Supportive environment facilitates a process of socialization where students' fear decreases, confidence increases and learning experiences enhanced (Del Prato, Bankert, Grust, & Joseph, 2011). It is imperative for clinical staff and nurse educators to recognize that students thrive in an environment where they feel respected and as part of the team, anxiety levels of nursing students increased in the presence of unsupportive clinical rotation environments and inhibited learning process of nursing and midwifery students.

Clinical Supervision in Nursing Education

Clinical supervision (CS) has gained wide recognition in recent years as an essential component of a practitioners' continuing professional development (Martin, Copley, & Tyack, 2014a). Lynch and Happell (2008) espoused that CS originated from psychoanalytical therapy training in the 1920s but emerged in the nursing literature in the 1970s (Yegdich & Cushing, 1998). Conspicuously, it has been acknowledged that the term CS itself is problematic as it is interpreted differently by different groups depending on the origin or historical use of the word, dynamic changes, relevance of the concept to different cultural groups, the language spoken and the meaning attached to this language (Walsh, Nicholson, & Keough, 2003). Meanwhile, no single definition of CS has been adopted within nursing profession (Lynch & Happell, 2008a; (Lynch, Hancox, Happell, & Parker, 2008). However, it is appropriate to use a

consistent term about CS in order to facilitate communication about this area (Bogo & McKnight, 2008).

For the purposes of this research, the definition by Milne (2007), is adopted. According to the author, CS is 'the formal provision by approved supervisors of relationship-based education and training that is work-focused and which manages, supports, develops and evaluates the work of colleagues'. Operationally, clinical supervision is a process that provides time out and an opportunity within the context of an ongoing professional relationship with an experienced practitioner (Martin, Kumar, Lizarondo, & Tyack, 2016).

Indeed, as part of nursing education in Ghana, supervisors collaborate with educational institutions to enhance the supervision of students in the clinical environment (Asirifi, Mill, Myrick, & Richardson, 2013). In all aspects of life, supervision has become a crosscutting edge tool and a fulcrum around which performance revolves. As such, CS is widely accepted as a crucial prerequisite for high quality nursing education. It is a formal process of professional support and learning, which enables individual practitioners to develop knowledge and competence, assume responsibility for their own practice and enhance satisfaction with clinical rotation experience of nursing and midwifery students. Meanwhile, there is widespread and on-going debate centered on the influence of effective supervision on learning experience of students (Ankoma-Sey & Maina, 2016) in our clinical education. This study seeks to assess the role of clinical supervision on the satisfaction of clinical rotation experience of nursing and midwifery students of UDS.

According to Ismail and Abiddin, (2009), the assessment of CS has a potential of making an important contribution to the quality of clinical education. Consequently, CS is concerned with the process of ensuring that nursing students make good progression towards a successful completion of nursing programs. Therefore, supervisors must be diligent about working with students to establish mutual expectations, responsibilities, and benefits for working together (Määttä, 2015; Philips & Pugh, 2003). Also, it has been reported that graduate students often experienced frustration as a result of a perceived lack of support (supervision) or what is referred to as a disjunction in expectations between the student and the supervisor (Ismail & Abiddin, 2009).

According to Lambert and Glacken (2005), for nursing students to be knowledgeable and skillful in clinical practice, there must be a skillful person to guide and demonstrate how theoretical knowledge can be integrated into practice. Supervisor, preceptor, and mentor are frequently used synonymously and interchangeably in the literature (Yonge, Billay, Myrick, & Luhanga, 2007). The term supervisor refers to a person who guides, supports and assesses the student, as well as being responsible for the intended learning outcomes within clinical education. Franklin, (2013) also indicated that 'clinical supervisor is an experienced registered nurse who supervises and facilitates student learning through guidance and support the clinical arena, providing links between theory and practice, and undertakes formative and summative assessments of nursing students'. In addition, clinical supervisor/preceptor is any registered nurse or midwife who has undertaken preparation for the role and who supports nursing and midwifery students in clinical learning environment and assumes the role of supervisor/preceptor and assessor of the students' achievement of

clinical learning experienced (learning outcomes) (Bengtsson & Carlson, 2015; Budgen & Gamroth, 2008; Quine, 2000).

Role of Clinical Supervision in enhancing Clinical Rotation Experiences

Clinical Supervision (CS) is relevant in enhancing Clinical Rotation Experience. The literature is replete with a diverse range of influences of CS on CRE. High quality of clinical practice experience has been attributed to quality clinical supervision (CS) in nursing literature (Edwards et al., 2005). These include: nursing students' satisfaction with clinical rotation experience, high rate of successful completion of undergraduate nursing and midwifery students, increased depth of knowledge, reduced emotional stress and increased self-awareness (Bifarin & Stonehouse, 2017: p. 332), inter alia.

Baylis (2014) stipulates that clinical supervision enables reflective practices, provides support, encouragement, and development of self-confidence and self-esteem. However, Bifarin and Stonehouse (2017) argue that CS is an important part of the nurses' clinical routine, even though it is one that is realistically often being neglected, owing to the pressures of work in clinical environment. Therefore, it is imperative to raise awareness of the relevance of CS as an important phenomenon, and to encourage nurses to embrace CS approaches in Ghana, both for themselves and for the professional development of the nursing and midwifery students. As part of nursing education in Ghana, supervisors/preceptors collaborate with educational institutions to enhance the supervision of students in the clinical settings (Asirifi et al., 2017). In addition, Edwards et al (2005) espoused that effective CS of nursing and midwifery students is recognized as having a crucial role for a successful completion of undergraduate nursing and midwifery students. It is widely accepted as an

essential prerequisite for high satisfaction with clinical rotation experience and quality nursing care.

In furtherance, benefits from clinical supervision (CS) have been established and identified for health professionals, student nurses, patients and organizations (Martin, Copley, & Tyack, 2014b). Clinical Supervision should be established and conducted effectively to provide an environment in which supervisors and supervisees can adequately evaluate their practices, develop professional skills, and seek new approaches to clinical teaching and learning (Farnan et al., 2012), thus improving the standard of clinical rotation experience of nursing and midwifery students and as well enhancing quality patients' care.

Also, with regards to health professionals, CS has been considered as supporting those working in the ward environment (Clough, 2000), assisting them to cope better with their work environment (Edwards et al., 2005), developing the skills, knowledge and competence of the healthcare professionals and reducing stress and anxiety (Edwards et al., 2006; Kleiser & Cox, 2008). Similarly, CS encourages the process of lifelong learning and will help in the development of the clinical leaders for the future generation (Governance, Disclosur, Management, Experience, & Partnership, 2018)

Additionally, CS has a positive effect on patients' outcomes and that inadequate or lack of clinical supervision of health professionals and nursing student can be harmful to patients' health outcomes (Farnan et al., 2012; Kilminster & Jolly, 2000). Safety and quality of nursing care had been reported compromised due to lack of quality supervision (Reid-Searl, Moxham, Walker, & Happell, 2010). Supervision is key in ensuring that clients are not exposed unnecessarily to unsafe practices by nursing and midwifery students and to

ensure accomplishing the objectives of the clinical rotation experience. Likewise, empirical studies in the nursing literature highlight CS as a positive influence on patient safety and the delivery of high-quality nursing care (Davey, Desousa, Robinson, & Murrells, 2006; Edwards et al., 2005).

Furthermore, CS is not only about small group dynamics that happen between supervisors and supervisees. Supervision occurs in broader social and institutional contexts that shape the relationships and delineate what is possible (Herna, Mcdowell, & College, 2016). At the level of organization, supervision is described as improving multi-disciplinary teamwork, enabling the development of clinical standards and enhancing the quality of service delivery (Hunter & Blair, 1999) and positive CRE. According to Zutshi et al, (2007) and Bifarin and Stonehouse (2017), CS helps accountability, which is necessary for effective practical experience, and it ensures delivery of quality care and positive learning experience of nursing and midwifery students.

Moreover, effective CS of nursing and midwifery students is recognized as a crucial role for a successful completion of undergraduate nursing and midwifery students of late. It is widely accepted as an essential prerequisite for high quality clinical rotation experience satisfaction and nursing care (Edwards et al., 2005). Meeting the developmental needs of supervisees in the beginning stages of their clinical rotation and assisting them understand the purposes and their role in clinical supervision might be essential (Bernard & Goodyear, 2014). Meanwhile, Ghana Registered Nurses' Association [GRNA] (2011) has expressed concerns about newly qualified nurses performing below the expected standard of nursing practice. In the past decade, the image of nursing in Ghana has fallen at a steady rate due to the poor nursing care rendered by

qualified nurses to patients. This has been and continues to be a major concern for all, especially nurse educators in Ghana. This phenomenon (poor nursing care) can be attributed to lack of effective CS of nursing and midwifery students in clinical learning environment. Hence, creating a gap in CRE of undergraduate nursing students.

Barriers to clinical supervision

Clinical teaching and supervision have not been without difficulties for the academic and health care organizations involved in clinical education in Ghana. Ali and Panther (2008) espoused that clinical supervision (CS) is an important phenomenon in nursing practice. However, it is important to note that there are times when it will not be fruitful due to certain impediments. Barriers to successful clinical supervision may include how dedicated the staff nurses and preceptors are, the skills they possessed, and supervisor-supervisee ratio among others. Moreover, CS is multifaceted, dynamic and may be affected by numerous factors. Factors such as inadequate collaboration between registered nurses and faculty (Asirifi et al., 2013a). Again, inadequate clinical placement sites, often because of increased numbers of nursing midwifery students' enrollment in training colleges and universities as influenced by policy makers in Ghana (Brunero & Lamont, 2012). The decreased traditional clinical placement opportunities related to health system changes also form part of the factors. More so, nursing students competing with other health care profession als in other disciplines for the same practice environment (Brunero & Lamont, 2012) is also a challenge. Shortages of academically qualified faculty members to facilitate CS (Brunero & Lamont, 2012), and academic expectations that influence faculty workloads and make it difficult to hire and retain faculty with

current clinical expertise or for faculty members to maintain their clinical expertise (Jamshidi, Molazem, Sharif, Torabizadeh, & Najafi Kalyani, 2016). Such issues are common globally, but gain grounds in more resource constrained national contexts such as Ghana (Asirifi et al., 2017).

In addition, while clinical supervision is considered an essential support for student nurses progressing into advanced practice, there is little guidance and guidelines to assist clinical supervisors on how to supervise for this purpose (Christensen, 2009; Doerksen, 2010; Gilfedder, Barron, & Docherty, 2010; Sharrock, Javen, & Mcdonald, 2013; Sullivan-Bentz et al., 2010). Nurses need to have a great flexibility and be prepared for complex and demanding clinical situations. According to Hyrkäs and Lehti (2003), the effects of clinical supervision on the quality clinical rotation experience and quality care are key aspects in the improvement of quality nursing education. This is target area of World Health Organization (Cruz, 2011).

Nevertheless, in other to ensure effective clinical supervision in nursing education in Ghana, a study conducted by Asirifi et al (2017) suggested that the workload of nursing teachers in schools and clinical settings should be reduced. Also, overcrowding of students at the clinical settings should be minimized by negotiations between the schools and clinical settings for appropriate times for clinical placements, there should be adequate support for clinical teachers (supervisors), both faculty and clinical agency staff, through collaborative planning for educational workshops and seminars, as well as verbal or monetary incentives for those who accept educational responsibility. More so, more faculty and clinical teachers should be recruited for full time, part-time, and adjunct positions. Undergraduate or post-graduate nurses who have interest in

clinical teaching should be encouraged, employed and mentored as part of their graduate or post-graduate program." These can help remedy the challenges confronting the clinical supervision in Ghanaian nursing education, and to enhance satisfaction with CRE of undergraduate nursing and midwifery students.

Factors influencing supervision satisfaction of nursing students

Clinical supervision (CS) is important for effective healthcare service delivery, professional development and accountability in nursing practice. Notwithstanding its importance, there is paucity of information in nursing education literature in Ghana concerning the factors that influence satisfaction with CS experience of undergraduate nursing and midwifery students. A descriptive quantitative survey conducted by Edwards et al., (2005) revealed a number of factors that enhance effective CS satisfaction of nursing students. They include frequency of sessions that had an effect on the effectiveness of clinical supervision. Supervisees whose sessions took place at least monthly, achieved the highest satisfaction; length of session also had an effect on the effectiveness of clinical supervision. Supervisees whose sessions lasted for over an hour achieved the highest overall scores. What is more, there is emerging evidence that a range of factors influence CS satisfaction such as length of the session, frequency and location of supervision.

In furtherance, in a qualitative exploratory research conducted by Reid-Searl and Happell (2011), four (4) main themes emerged from this research as perceived factors influencing satisfaction with CS practices. They include communication between supervisors and supervisees, busy nature within the clinical environment, attitudes of supervisors and student nurses and pressure

within the ward environment. The importance of these themes in relation to the broader literature will be briefly described.

Communication is identified as significant in providing registered nurses (clinical supervisors) with information about what students are supposed to do to ensure safe and effective clinical learning (rotation) experiences. The importance of communication from the universities where nursing students are trained, to clinical teaching staff (supervisors) has been identified for clinical experience satisfaction in general (Happell, 2009; Levett-Jones et al., 2006; Waldock, 2010). The extent to which communication sieves down from management to the registered nurses who would be supervising the students is identified as a strong factor hindering clinical rotation experience of undergraduate nursing and midwifery students. Despite the fact that communication is a long-standing problem, it can equally be addressed. The suggestion from participants in one study that stated that facilitators attend handovers and maintain more regular contact with registered nurses providing supervision is worthy of further investigation as one strategy to address communication issues (Reid-Searl & Happell, 2011).

Another emerging evidence in the study (Reid-Searl & Happell, 2011) was quality of supervision being influenced by the busy nature of the clinical setting. The consequences of the above have a tendency to be either that the student may give medication without direct supervision or students may not be given the opportunity to practice these skills because of limited time available (Reid-Searl et al., 2010).

Similarly, attitudes of supervisors have also been identified as another factor influencing satisfaction with CS of undergraduate nursing and midwifery students. A qualitative study by Reid-Searl et al. (2010) revealed that, registered nurses' attitudes to students in clinical environment were described as influential factors to students' supervision. Some supervisors saw their role as providing clinical services and did not consider supervision of nursing students as part of that role. In the same study, one participant (registered nurse) described her own ambivalence about working with students, "I have been in the past thinking, I am not getting paid to do this (clinical supervision). Why should I give up my time for this student nurse and this university and I am not being paid for it there are other times when you think, well, they are our future. We have got to teach them, this is our role". Meanwhile, overwhelming number of participants (registered nurses) considered the students to have positive attitudes towards CS as reflected by an enthusiasm for learning and a willingness to seek more information when required.

Again, Reid-Searl et at (2010) also espoused that, age of the students is also crucial influential factor in supervision process. In their study, some participants identified ages of students as being a leading influential factor, with older students inclining to be more prepared, more willing for learning opportunities, and more likely to ask questions or challenge registered nurses. In the same vein, age has also been identified as a factor from the student perspective, with younger students identified as more likely to behave in ways that would meet the approval of registered nurses. This finding highlights the need for students, particularly younger ones, to be assisted to develop

assertiveness skills so they can become more comfortable in challenging supervisory arrangements that do not meet requirements.

Moreover, group supervision has also been identified in nursing literature as a significant factor to nursing students' satisfaction with clinical rotation experience. A study conducted by Lindgren and colleagues (2005), illuminated that prior to the supervision program, overwhelming majority of the respondents (student nurses) had positive expectations towards group supervision, but 25% also had negative expectations. At the end of the program, all students felt that group supervision had served as an important support to them during their training and almost everyone (98%) wanted to participate in group-supervision in the future date. The results from the above study emphasized on the adoption of group-supervision model in clinical nursing practice to ensure nursing and midwifery student's satisfaction with CRE. In another jurisdiction, nursing and midwifery students experience a sense of belonging and a positive clinical rotation (learning) experience when working within a team of nursing staff in a nursing unit or ward (O'Mara, McDonald, Gillespie, Brown, & Miles, 2014; Papathanasiou, Tsaras, & Sarafis, 2014). On the contrary, some group of students on another study also perceived individual supervision as being positive. In this study, students felt that their personal preceptors trusted them and their responsibilities for care activities increased as time went on. Being able to take responsibilities beyond what they had expected and being trusted by their preceptor was an important encouraging factor in learning, according to the students' perspectives. Student also appreciated to be respected as students, which increased their self-esteem and self-confidence (Ehrenberg & Häggblom, 2007).

Additionally, many studies have reported on the significance of interpersonal relationships between undergraduate nursing and midwifery students and their supervisors as a determining factor for student success and satisfaction with CRE (Ismail & Abiddin, 2009; Lin & Cranton, 2005). Similarly, Ives and Rowley (2005) emphasize the importance of matching supervisors to graduate students in terms of both course/topic expertise and working relationships. Again, a mixed method (cross-sectional and qualitative) study conducted by Courtney-Pratt et al (2011) indicates that relationships between supervising ward nurses and undergraduates were important influences on the CRE. Such relationships were perceived by undergraduates to have 'made a difference in how confident you feel in seeking advice and getting help'. Conversely, another undergraduate nursing student stated that 'on a few occasions, it was verbally obvious that some nurses did not want to help any of the students'. Reportedly, such actions could lead to undergraduates feeling nervous and incompetent. In the same study, several comments were also made by supervising ward nurses that, it was not helpful if 'students were not enthusiastic to learn' or seemed to 'lack motivation'. In addition, several undergraduates commented that feeling part of the team was instrumental to receiving maximum benefits from the CRE.

Satisfaction with Clinical Supervision Experience

Satisfaction and dissatisfaction with clinical supervision experiences are concepts of interest in the nursing literature (Ramos-Sánchez et al., 2002). The studies have shown that satisfaction is a prominent aspect of the supervision process. Beyond indicating a measure of overall quality of supervision, satisfaction is related to the extent to which supervisee's growth and

development has been facilitated (Vandergast & Hinkle, 2015). A correlational finding between satisfaction with supervision and the salience of the supervisory relationships are well represented in empirical research (Lizzio, Stokes, & Wilson, 2005; Magnuson, Wilcoxon, & Norem, 2000; Ramos-Sánchez et al., 2002). Lizzio et al. (2005) measured didactic and facilitative approaches to supervision, and the results indicated a positive relationship between the facilitative approach and positive supervisee evaluation of the supervisor. An examination of supervisee satisfaction in research reveals a more detailed understanding of underlying processes in supervision. Findings indicated the quality of supervision from the supervisee perspective.

Moreover, a quantitative study by Midgley (2006), who studied pre-registration student nurses' perception of the hospital-learning environment came out with the finding that, students' satisfaction and personalization were perceived by the students as the most important domains in the clinical learning environment during their clinical rotation practice. In addition, the study by Midgley also found that most of the student nurses and student midwives (65.5%) were in the category of those who were highly satisfied with the clinical rotation experience.

Clinical Learning Environment

Clinical learning environment (CLE) in nursing education has gained increasing attention over the last two decades (Helminen, Tossavainen, & Turunen, 2014). Environment is the umbrella concept in the Nightingale's theory of nursing. It was her contention that the environment could be altered in such a manner as to improve conditions so that the natural laws would allow healing to occur. This grew out of her empirical observation that poor or

difficult environments led to poor health and disease (Running et al., 1999; Zborowsky, 2014). In the contemporary era, poor and difficult environment have the tendency to prevent experiential learning to take place in the clinical learning environment. Midgley (2006) postulates that the most effective environment for clinical learning and critical thinking is the one that is supportive, free from fear, encourages openness and respect for the student as an individual. Similarly, in such an environment, students can develop self-confidence, competence, good interpersonal communication and problem-solving skills (Myrick, 2015), which can enhance their clinical rotation experience.

According to Dunn Burnett (1995 as cited in Edgecombe & Bowden, 2009), Clinical Learning Environment (CLE) may be defined as 'an interactive network of forces within the clinical setting that influence the students' clinical learning experiences'. It encompasses all that surrounds the student nurse, including the clinical settings, the equipment, the staff, the patients, the nurse mentor, supervisor (preceptors), and the nurse teacher. The academic surrounding encompasses only the nurse teacher or faculty and nursing students and controlled by faculty members. The clinical environment on the other hand is not easy to control. There are a lot of stimuli, which makes it difficult for nursing students to learn what is critical for their practice experiences (Papp, Markkanen, & von Bonsdorff, 2003). Nurse teachers and mentors should prepare nursing and midwifery students in advance for encountering this huge number of different stimuli that clinical environment offers. Croxon and Maginnis (2009) assert that, a constructive clinical learning environment with adequate opportunities for the development of confidence and competence, and

with a focus on student learning needs rather than only health care service delivery needs, is essential for nursing and midwifery students' clinical rotation experience.

In addition, the establishment of a good learning environment, where theory and practice complement each other has been considered to depend on clinical staff and university teachers. Good co-operation between those two groups acting as facilitators has contributed to providing students with possibilities for learning (Watkins, 2000). More so, effective clinical learning requires integration of nursing students into ward activities, staff engagement to address individual nursing student learning needs, and innovative teaching approaches. Certainly, assessing characteristics of practice environments can provide useful insights for nursing students' developments. This study assesses the roles (influences) of clinical learning environment on nursing and midwifery student's satisfaction with clinical rotation experience.

Characteristics of Contemporary Learning Environment

The clinical learning environment (CLE) is dyadic in nature. According to Papp et al. (2003), clinical environment is sometimes unpredictable, which makes it uneasy to plan an optimal CLE for nursing and midwifery students. It is characterized by pedagogical atmosphere of clinical environment, leadership style of the ward managers, premises of nursing in learning environment, and the supervisory relationships between students, clinical staff and nurse educators (Saarikoski & Leino-Kilpi, 2002).

Concerning pedagogical atmosphere of the ward, the atmosphere of the clinical learning environment can be either positive or negative depending upon the situation. A contemporary CLE is characterized by non-hierarchical

structure and can be identified as those displaying teamwork, good sprit and good interpersonal communications (Saarikoski & Leino-Kilpi, 2002). In addition, the physiognomies of learning atmosphere are multifaceted. It has been highlighted in nursing literature that students need to be motivated, feel involved in ward activities, develop good relationships with other team members, and feel safe to ask questions and explore practices (Chan, 2001; Henderson, Creedy, Boorman, Cooke, & Walker, 2010). Such an atmosphere can be deemed as a good learning environment. More so, a positive atmosphere and good team spirit are the most important features of a contemporary clinical environment (Leveck & Jones, 1996). Additionally, Wilson-Barnett et al. (1995) suggested that 'if the ward staff worked together and are motivated, the students feel both supported and well supervised in the clinical environment.

Another Characteristic of contemporary CLE is leadership style of the ward manager (WM). A good learning environment is measured by a management style which is democratic and in which the ward manager is aware of the physical and emotional needs of the nursing staff, nursing and midwifery students (Neville & French, 1991). Accordingly, the study conducted by (Bondas, 2006) also revealed that, leaders who were described as driving forces were admired. They were regarded sources for inspiration and role models for future nurse leaders. Leadership for WM (senior nurses) is mainly about making decisions; delegating appropriately; resolving conflict; and acting with integrity. The role also involves nurturing students and staff, being aware of how people in the team are feeling by being emotionally in tune with staff. In addition, Saarikoski and Leino-Kilpi (2002) claim that the ward manager is able to stimulate and strengthen the participation and commitment of nurses to a

variety of learning experiences of nursing and midwifery students. What is more, a recent international study found that the leadership style of the ward manager remains an important element of learning in clinical setting (Abouelfettoh & Mumtin, 2015). Others also espoused that, cultural and organizational factors in the ward often influenced students' rotation experience (Mantzoukas & Jasper, 2004).

In furtherance, premises of nursing consist of the culture and values of nursing in the ward, information flow related to patient's care, documentation of nursing care plans, recording of nursing procedures, and adequate meaningful learning conditions on the ward (Skaalvik, Normann, & Henriksen, 2011). Smith (1987) espoused that high quality nursing care, which is the best context for successful clinical rotation (learning) experiences, describes the premises of nursing on the ward environment. It is notable that, with 2.6 million nurses in the USA delivering patient care in clinical ward, their daily evaluation of that care is done without a shared understanding of what quality nursing care really means (American Nurses Association [ANA], 2005; Eraut (2000) argued that CLE is important not just for clinical skill development, but for students to also learn about the standards of practice. That is, processes in care delivery (Nursing Process). Similarly, quality clinical learning occurs in a premise that fosters staff development and the advancement of skills acquisition in conjunction with independent thinking where nurses can initiate practice change based on the judicious use of evidence. A response from survey also postulate a sense of affiliation within the learning environments. This includes recognition of students that, they are part of sharing the tasks, activities or skills and in particular, students fitting into the ward setting (Levett-Jones & Lathlean, 2008;

Newton & McKenna, 2007). Perhaps, if nursing care occurs in a spirit of caring, then the student could learn the core of nursing care through their caring experiences. Again, through caring experiences with patients, the students' self-confidence and self-esteem in their own nursing care was enhanced (Saarikoski & Leino-Kilpi, 2002).

Concerning supervisory relationship of the ward, research focused on the supervisory relationships and supervision that takes place with an individualized supervision or in a group supervision. In contemporary nursing education, terms like "mentor", "preceptor" and "link teacher" are extensively discovered to describe a supervisory role and the one-to-one relationship between student and mentor, or individualized supervision was found crucial to the process of professional development (Earnshaw, 1995; Marrow,1994 as cited in Abouelfettoh & Mumtin, 2015). Similarly, research shows that mentorship facilitates learning opportunities, helping to supervise and assess staff in the practice setting. Terminologies frequently used to describe a mentor include teacher, supporter, coach, facilitator, assessor, role model and supervisor (Hughes, 2004; Chow & Suen, 2001). Other studies focused on staff-student relationships and the impact it has on students' learning. Empirical research posited that, poor staff relationships, lack of staff commitment to teaching, autocratic relationships, lack of the supervisor-student relationship were found to be some obstructive factors for learning, whereas feeling part of the team is closely linked with the opportunity of gaining more experience in clinical rotation practice (Lofmark & Wikblad, 2001; Yonge et al., 2007; Myrick, Yonge, & Billay, 2010; Yonge, Myrick, & Haase, 2002). Vance and Olson (1992 as cited in Saarikoski & Leino-Kilpi, 2002) claimed that the one-

on-one relationship is the most important element in clinical instruction and supervision provided by staff nurses (Abouelfettoh & Mumtin, 2015). The key factors described as effective in nursing transformational leaders comprise: access to effective role models, mechanisms of mentoring and clinical supervision, provision of career pathways, intentional succession, organizations that value clinical competence, and provision of centers of excellence (Vinales, 2011; Gopee, 2011). The aim of the supervisory system is to enable a close relationship between supervisors and students, which will facilitate the students learning and provide individual support and guidance through clinical study (Ismail & Abiddin, 2009a; Edwards et al., 2005; Gopee, 2011).

In the nutshell, it is important that nurse educators consider carefully, where students have their clinical practice and at what point of their different placement, rotation should occur. The fact that students are individuals, it means it is difficult to find clinical environment suitable for everybody in this contemporary era. However, students should be treated equally and with consistency throughout their clinical rotation practice (Hutchings & Sanders, 2001). Even though the mentor knows the ward on which the student is practicing, the college or university teacher is still more capable than the nurse mentor of pointing out things that are important for each particular rotation practice (Papp et al., 2003). As a result, collaboration between teachers and supervisors/mentors is necessary to ensure appropriate learning experiences for students according to their individual needs (Newton & Smith, 1998). The teacher could act as a liaison and focus on the planning and organizing of the clinical practice. This would clarify the role of the teacher in the clinical surroundings.

Role of Clinical Learning Environment in satisfaction with Clinical Rotation Experience

The assessment of clinical learning environments for students is necessary, given the shifting emphasis of contemporary nursing education; recognition of the importance of the clinical environment for learning and role development; and the need for managers to cultivate and monitor organizational culture to optimize clinical learning experience.

To begin with, a positive clinical learning environment (CLE) with adequate opportunities for the development of confidence and competence, and with a focus on student learning needs rather than only health care service delivery needs, is essential for undergraduate nursing and midwifery students' satisfaction with their clinical rotation experience (CRE) (Croxon & Maginnis, 2009). Similarly, the establishment of a good learning environment, where theory and practice complement each other, has been considered to improve CRE of nursing and midwifery students. Again, Contemporary CLE allows good co-operation between clinical staff and university teachers (faculty) acting as facilitators in ward environment. This relationship can contribute immensely to providing nursing and midwifery students with possibilities for learning satisfaction in clinical rotation practice (Watkins, 2000). There is need for concerted efforts by both educational institutions and health care organizations in order to improve clinical rotation experience in nursing education in Ghana through effective CLE.

In addition, Lewin (2007 as cited in Msiska, Smith, & Fawcett, 2014) maintains that learning in the clinical setting is fundamentally complex because its primary concern is patient's care and not student learning. This implies that

patient's needs take priority over student's learning needs and sometimes this can compromise students' learning during clinical rotation period. The clinical learning environment has many stimuli which makes it hard for the student to identify potential learning opportunities and obviously student nurses feel overwhelmed (Brown, Herd, Humphries, & Paton, 2005; Mikkonen, 2005; Papp et al., 2003).

Furthermore, various studies have indicated that the attitudes of qualified nurses are of supreme influence on students' rotation experience (Atack, Comacu, Kenny, LaBelle, & Miller, 2000; O'Flanagan & Dajee, 2002; Andrews, Brodie, Andrews, Wong, & Thomas, 2005). In particular, creating a good atmosphere and relationships in clinical environment is regarded as essential for improved learning. Therefore, qualified nurses should be required to strive to make students feel as part of the team and should provide support to students during clinical learning process (Edwards, Smith, Courtney, Finlayson, & Chapman, 2004). Equally, Papp et al (2003) argued that a supportive (good) CLE is described as being one where there is good co-operation between the staff members, a good atmosphere for learning, and where student nurses are regarded as younger colleagues rather than strangers within the clinical arena. The above study (Papp et at., 2003) also supports the findings from Jackson and Mannix (2001) in that, student nurses regard attitudes and behaviors of staff nurses within the clinical setting to be important for their learning experience (CRE).

More so, studies have suggested that cultural and organizational factors in the CLE often influence students' satisfaction with clinical rotation experience (Saarikoski & Leino-Kilpi, 2002; Mantzoukas & Jasper, 2004;

Pearcey & Elliott, 2004). However, it is well recognized that the clinical setting can be a source of stress and anxiety for nursing and midwifery students. However, performing duties in an authentic domain is considered to be a valuable experience for the professional socialization of nursing students (Dunn, Ehrich, Mylonas, & Hansford, 2000; Stockhausen, 2005). To provide effective learning for nursing students, determining appropriate clinical teaching approaches such as clinical supervision/preceptorship, mentorship and clinical teaching partnership among others, have been encouraged (Atakro & Gross, 2016; Hosoda, 2006) as strategies for enhancing clinical rotation experience of undergraduate nursing and midwifery students. More importantly, despite the challenges of preceptorship in Ghanaian nursing education, it is still a relevant concept of clinical nursing education in Ghana that improves clinical rotation experience of nursing and midwifery students. Charleston and Happell (2005) claim that, the importance of preceptorship in ensuring positive clinical experiences for nursing and midwifery students has been widely acknowledged in nursing literature. The important characteristics of effective supervisors/pre ceptors include willingness to share knowledge and skill, good communication skills, being encouraging, supportive, and approachable, and giving constructive feedback. Good preceptors feel genuine concern for the students as individuals and embrace their role willingly (Gray & Smith, 2000), hence, influencing positively on CRE of nursing and midwifery students.

Corroboratively, the significant role of any clinical learning environment (CLE) is that it provides experience and supervision that allows nursing and midwifery students to achieve learning objectives central to the course of study. Eventually, this is achieved through the support of practitioners.

The access to learning opportunities such as access to patients' records, access to ward reports, participation in clinical rounds, clinical tutorials, clinical case conferences, shadowing, assessing patient under supervision and with support, engaging in practice with supervision at a distance in a safe environment and Project work (An Bord Altranais [ABA], 2003).

Conspicuously, CLE should provide learning opportunities for nursing students to observe and participate in direct patients' care. Arguably, clinical learning environments that are positively oriented toward teaching also provide high quality supervision, good social support, and appropriate levels of autonomy (Rotem, Bloomfeld, & Southon, 1996). Boor et al (2007) claim that, quality CLE also include effective teaching and facilitation. Conversely, CLE can both facilitate and restrict the quality of learning experiences, and have a momentous influence on clinic (An Bord Altranais, 2003) rotation experience.

Evidently, the quality of the clinical learning environment (CLE) is considered an important factor for determining the quality and satisfaction of clinical rotation experience of nursing and midwifery students (Perli & Brugnolli, 2009; D'Souza, Karkada, Parahoo, & Venkatesaperumal, 2015). Overall, many studies demonstrated the importance of CLE in students' learning experiences (Sharghi, Alami, Khosravan, Mansoorian, & Ekrami, 2015). Moreover, Akta and Karabulut (2015) highlighted that when nursing students graduated without enough clinical rotation experience and with an insufficient practical experience, then it was attributed to poor and inadequate CLE to support the students.

More so, Perli and Brugnolli (2009); and D'Souza, Karkada, Parahoo, and Venkatesaperumal (2015) found in their studies that, clinical learning

environment is considered an important influential factor for determining nursing students' satisfaction with clinical rotation experience. The findings from the cross-sectional study by (Ashrafasadat Hakim, 2013) on nursing and midwifery students' satisfaction with the clinical learning environment showed that, the majority of nursing students' had little satisfaction from clinical learning environment. In this regards, student satisfaction is one of the main and most important factor hindering the education and clinical learning experience of undergraduate nursing and midwifery student (Glossop, 2001). Also, according to Abedini, Aghamolaei, Jomehzadeh, and Kamjoo (2009), the most important hitches in clinical learning of undergraduate students are lack of amenities (71.2%), inadequate teaching space (39%), lack of teaching aids in clinical (37.3%), inadequate facilities in educational center (35.6%) and shortage of experienced teachers to teach in clinical settings (35.6%).

Challenges Nursing and Midwifery Students Face in Clinical Learning Environment

Nursing and midwifery students have enormous challenges in clinical leaning environment (CLE). Identifying challenges with which nursing students are faced in the CLE in all dimensions could improve training and enhance the quality of its planning and the promotion of the students' clinical rotation experience. A qualitative study conducted by Jamshidi et al (2016) revealed that after analyzing the interviews with the participants regarding the challenges of nursing students in dealing with the clinical learning environment, three main themes emerged as being challenges.

They include ineffective communication, inadequate readiness, and emotional reactions. The authors in the above study claimed that, ineffective

communications have two main subcategories such as improper treatment and discrimination. Improper treatment, students encountered some challenges in dealing with clinical learning environment and in contact with clinical instructors, patients, and department personnel. Majority of the participants (students) stated that they had the most interactions with the instructors and believed that the way an instructor treats a student affects their exposure to clinical learning environment. Equally, the results of the studies conducted by (Baltimore, 2004; Sharif & Masoumi, 2005) demonstrate that conflicts and improper treatment between the staff nurses and student nurses negatively affect the clinical teaching trend. Hanifi et al (2012) found that proper communication with students increased their motivation and influenced positive clinical rotation experience.

Concerning the discrimination, most students had experienced a subcategory in clinical environment. Students complained about a series of discriminatory behaviors they were experiencing at the bedside that annoyed and frustrated them. According to what the students claimed, the greatest discrimination in the clinical environment was apparent in behaviors of nurses towards nursing students, where medical students were given preferential treatment as against nursing students. Quite apart from the behavioral discrimination, another complaint of the participants (students) was about discrimination in the use of educational facilities such the use of conference room and the likes (Jamshidi, Molazem, Sharif, Torabizadeh, & Kalyani, 2016). This is also similar to the result of the study conducted by Mohebbi et al (2012) study in Iran demonstrating that a high percentage of nursing students reported discrimination between nursing and students from the other fields.

In addition, inadequate readiness is another challenge, which nursing student faced in clinical learning environment, which includes three sub-categories such as inadequate knowledge, deficient practical skills, and insufficiently developed communication skills. Many students did not have sufficient knowledge to care at the bedside when dealing with CLE and providing care to the patients was challenging for them. More so, Clinical environment is a suitable context for learning skills needed for patient's care.

In furtherance, emotional reaction is another influential factor in CLE affecting nursing and midwifery students in that, it brings about stress and inferiority complex in students. Likewise, nursing students' stress in approaching clinical environment affects their general wellbeing and distracts their rotation experience (Changiz, Malekpour, & Zargham-Boroujeni, 2012). In another study, it is argued somewhere that, stress is one of students' experiences in the CLE. Joolaee et al (2015) also espoused that the causes of nursing students' stress in the clinical environment fall into three types: stress due to the educational plan, stress due to the educational environment, and stress due to student factors. In Chesser-Smyth's (2005) study, stress and anxiety were one of the students' experiences in the clinical learning environment. In addition, inferiority complex is another challenge indicated by participating (students) in another study. The results of study conducted by Edwards and colleagues showed that low self-confidence is one of the nursing students' problems. Adequate self-confidence is one of the nursing students' requirements in providing good care (Brown et al., 2003). Lack of self-confidence has been referred to as a major cause of fear and anxiety in nursing and midwifery students, hence, influencing their clinical rotation experience.

To add to the above factors, results from clinical evaluation tools and processes were the major concerns of students and faculty. Studies have shown that prompt constructive feedback, allowing students to construct learning objectives, and involving them in clinical evaluation are important for experiential learning (Asirifi et al., 2017). The study also suggested that clinical evaluation reforms may be a priority for which consensus may be achieved fairly and easily. There is important need for more collaboration between health training institutions and clinical learning environment to enhance clinical learning.

What is more, Mabuda, Potgieter, and Alberts (2008) in their qualitative study enumerated a number of factors that can affect student nurses in clinical environment. They identified factors such as lack of adequate teaching and learning support for nursing and midwifery students, lack of adequate opportunities for learning in the clinical learning environment, theory-practice gap, and poor interpersonal relationships between students and nursing staff in the ward. In a similar study, some students highlighted information gap between students and supervisors and lack of communication of clinical objectives as reasons for not understanding what to do during clinical rotation period (Helgesen et al., 2016). According to Young et al (2012), learning in the clinical environment generally does not work as desired with the learning objectives set by teachers. Factors responsible for not meeting the objectives by students consist of; so much concern about patients' safety and comfort, overconcentration of patient's right, and shortage of field experienced supervising staff in clinical environment. Young et al. (2012) further clarified that concerning clinical experience in obstetric nursing practice, there is more

complexity than in other areas in gaining clinical experience. The reason being that, there is so much concern for the safety of the mother and fetus and the privacy of the mother. It is usually difficult for midwifery students to observe and perform the practice of midwifery. For a personal experience, student midwives encounter many challenges in the clinical environment, such as obtaining experience in areas such as labor ward assessment, family planning assessment and evaluation among others.

Indeed, nursing and midwifery students in Ghana are experiencing many challenges in health training institutions and colleges, more especially, clinical learning environments during clinical rotation training. This is consistent with studies by Atakro (2017), Opare and Mill (2000), who found that education for nurses and midwives in Ghana since time immemorial is full of challenges for educators (tutors) and learners.

A Brief Historical Perspective of Nursing Education in Ghana

Nursing education in Ghana has undergone a lot of transformation since colonial regime until date. Throughout Africa, nurses play an important role in the health care delivery system. In Ghana, nurses play crucial roles by providing instrumental roles in the delivery of health care to individuals, families, and communities (Donkor & Andrews, 2011). Also, Donkor and Andrews postulated that, during the colonial regime, between 1902 and 1957, the training of nurses started in the hospitals' environment in a form of apprenticeship and was under the supervision of the hospitals' administration. After independence, the training of nurses continued to be under the control of the hospitals, though, it was more structured than before. In the latter part of the 1990's, nursing education had moved from the hospital-based training to educational

institutions. At the time Ghana attained independence, a number of nursing educational facilities were opened in certain parts of the country such as Ashanti Region, Accra, Cape Coast, and other places, which provided training for state registered nurses (Opare & Mill, 2000a). The first nursing school was established in 1963 in Legon campus as post basic serving as World Health Organization (WHO) project, as was requested by the Ministry of Health Ghana (Donkor & Andrews, 2011). Interestingly, the development of nursing education in Ghana is characterized by dynamic change. As the first former colony in Africa to achieve independence, Ghana became a leading 'vessel' in the development of nursing education for nurses. In addition, the first university-based diploma program for nurses in tropical Africa was established at the University of Ghana to prepare tutors for nursing schools.

Indeed, the development of nursing in every country is aimed at equipping nurses with adequate knowledge and skills necessary for the delivery of contemporary and culturally sensitive nursing care to clients, and so was the motive of post basic program initiated in Legon. Eventually, the nursing education has progressed from post basic program to the current level of post-graduate education (Donkor & Andrews, 2011). Further, there were conscious efforts to provide facilities for training nurses in Ghana to produce African nurses to feed the health service setup (Addae, 1996 as cited in Salifu, 2016). More Nursing Training Colleges have been established by the Government of Ghana to increase the number of nurses' enrollment in the country. In recent times, most nurses in Ghana are trained or educated in training colleges, which are often, but not necessarily, affiliated with teaching hospitals. Somewhere around the year 2000, there were nine total degree-nursing programs in Ghana

which award a bachelor degree upon completion, although several of those are private training institutions. The degree-nursing students receive training in research and leadership as part of their education, in order to position them for future managerial positions. All successful graduates from diploma, certificate, or degree programs are eligible to take the nursing certification examination administered by the Nursing and Midwifery Council of Ghana (Bell, Rominski, Bam, Donkor, & Lori, 2013).

The Nurses and Midwifery Council of Ghana is the regulatory body for nursing in Ghana, which was established to introduce the Registered General Nursing (RGN) programs in 1999, at the diploma level, to be run in the Nurses Training Colleges that were training the State Registered Nurses (SRN). The SRN and RGN programs ran alongside until the SRN program was subsequently phased out. The intention of introducing the diploma programs was to raise the standard of nursing education by producing quality personnel who could eventually staff the universities (Akiwumi, 1994 as cited in Salifu, 2016).

Again, to enhance nursing education in Northern Region, the Department of Nursing was established in University for Development Studies (UDS), Tamale campus in the year 2009, to serve as a center to facilitate training of general nurses and midwives at the degree level in the three (3) Northern Regions. Its establishment was aimed at improving nursing care by increasing the qualification and competence of nurses in practice. Currently, the UDS (Tamale campus) is one of the youngest public funded institutions offering Bachelor of Science (BSc) in nursing in Ghana. According to the study conducted by Salifu (2016), the Department has a total number of 11 nurse

faculties, an average class size of 176 and an average student population of 704 (faculty student ratio of 1:64) as at the time of study. The Department depended on the services of adjunct faculty to help augment the staff shortage.

In furtherance, nursing education in Ghana has continued to develop and now extend its 'wings' to postgraduate nursing courses such as the Master of Philosophy of Science in Nursing, and specialist programs such as midwifery, emergency, pediatric, psychiatric, neurosurgeon and medical surgical nursing. It is interesting to note that the number of universities in Ghana offering nursing programs are underway to start Doctor of Nursing programs (Ayeson, 2017).

Notwithstanding, the transition of nursing to higher education, training of student nurses has not been without challenges, especially clinical education. Clinical practice consists of transforming theoretical knowledge to practical skills in a variety of clinical environment, such as hospitals, health care centers and community centers inter alia (Häggman-Laitila, Elina, Riitta, Kirsi, & Leena, 2007; Lindahl, Dagborn, & Nilsson, 2009).

However, the emphasis on task-oriented nursing care has not changed. The hospital-based diploma model has been the most frequently used in nursing education in Ghana (Talley, 2006). Students are still taught to follow the functional model of nursing care (Donkor & Andrews, 2011). Nursing students are expected to be assigned to the hospital wards to practice nursing skills taught in the classroom and skills laboratory once a week intra-semester. Practical rotation experiences, by the standards of Nurses and Midwifery Council of Ghana should be at least 6 hours duration on the ward (Nursing & Midwifery Council, Ghana, 2015). The six (6) hours weekly practical arrangement is to expose students to clinical rotation experience. It offers students the opportunity

to apply what was taught in skills laboratory on real patients. In addition to the weekly ward practice, students are assigned to the hospitals on clinical rotation placement for at least four (4) weeks during the inter-semester breaks (NMC, 2015).

What is more, introducing nursing and midwifery students to the clinical learning environment is intended to build their clinical competence (Ion, Smith, & Dickens, 2017) and to socialize them to the nursing profession. Meanwhile, the philosophy of the ward environment has been observed to have significant impact on nursing and midwifery students' ability to have a positive clinical rotation experience. Clinical nursing also requires supervision of its trainees as a practice-oriented profession to acquire the necessary competence.

Similarly, clinical supervision is crucial in ensuring the safety of patients and help improve the practices of nursing and midwifery students to ensure accomplishment of objectives of the clinical rotation experience. Seemingly, most nursing schools in Ghana adopted preceptorship model of clinical teaching and supervision. What is more, some hospitals and schools appointed Registered General Nurses to assume another responsibility as nurses of the facility and as preceptors without any formal training. (Lian, Ferris, & Brown, 2012).

Theoretical Foundations of the Study

Over the last century, nursing has made significant and meaningful achievement in the last century that has led to the recognition of nursing as an academic discipline and a profession. A move towards theory-based practice has made contemporary nursing education more meaningful and significant by shifting nursing focus from vocation to an organized profession (Ingram, 1991).

As such, theories play an important role in health education research and are most useful tools as they tackle health challenges.

Theory is defined as a systematic explanation for observation that relate to a particular aspect of life (Wagenaar & Babbie, 2005). The need for knowledge-based theory to guide professional nursing practice had been realized in the first half of the twentieth century and many theoretical works have been contributed by nurses ever since, primarily, with the goal of making nursing a recognized profession and secondly, with the goal of delivering care to patients as professionals (Elmore, 2010).

Further, nursing theories are important because they help define what nursing is, provide foundational support for gathering and creating nursing knowledge, and providing direction for nursing's best move into the future (Neuman et al., 2009; (Mary Jane Smith & Liehr, 2008). In effect, nursing educators who lack educational theoretical background are left to deal with complexities of today's nursing world using only the tools and education they have, which unfortunately is usually based only on nursing theory, and usually not on principles of education and learning. As John Dewey wrote in his book 'The Question of Certainty', "Nothing is as practical as a good theory. Indeed, the National League for nursing (2005) has clearly set forth the case and rationale for the recognition of nursing education as a specialty area and a distinct nursing focus area that has its own agenda and research areas of need.

On the account of all evidences above, the researcher will review the literature to support this current study. Fortunately, the literature revealed a number of theories underpinning this study. However, three (3) theoretical models that are in line with this study would be reviewed as follows: 1) Neuman

System Nursing Education Model (NSNEM), 2) Synergy Model of Preceptorship for Learning and Care, and 3) Model for Clinical Nursing Education and Training. However, the later theoretical model would be discussed under the theoretical framework/model.

Neumann Systems Nursing Education Model

Elmore (2010), from the original Neumann System Model of Care developed the Neumann System Nursing Education Model (NSNEM). It is a pertinent framework to describe student nurses and their educators and the learning experiences in the teaching and learning environment (Reghuram & Mathias, 2014). This model is a proposed middle range theory and conceptual model that is most linked with the grand theory/model at the theory level. Smith and Liehr (2008) asserted that, "each middle range theory has its foundations in human beings, environment, nursing, and health, and must be addressed.

The NSNEM includes provisions that closely reflect the definitions and basic conceptual model used to demonstrate the concepts found within the Neumann's System Model (NSM). The NSNEM is theoretically significant in that it provides a mechanism for educators to look at the complexity of educating a nursing student in the 21st century. Equally, it provides a perspective to view the student as a client (as it is in NSM), and to view the forces that either support successful adaptation of a nursing student, or even prevent a student from becoming a competent nurse in future. In addition, the model also provides the theoretical support for how a nursing educator can intervene on to help a student achieve success as a nursing student.

In furtherance, the NSNEM is applicable to teacher–learner relationships in that, students as the center of the system interact with teachers

within the context of a teaching-learning environment. Teachers provide a climate that communicates values of care and concern for students. Students accept responsibility for a relationship that implies motivation and accountability for learning. Together, teachers and students co-create an environment in which they select goals, create learning experiences, and interpret them in ways that promote thinking, knowing and satisfaction. It highlights the response of the "student system" to the prospective factors that can cause stress and influence learning experiences in the immediate learning environment (Neuman et al., 2009).

This basic proposition of placing the nursing student at the core of the nursing educational model, just as the client is found in the NSM; allows for consideration of the multi-contextual nature of a nursing student's life experiences and personal variables in relation to their ability to adapt to the stressors encountered in the nursing education period. Placing the student at the core of the model also allows the wholeness of the created environment of nursing students to be thoroughly examined and researched. Theoretical Propositions of the Neumann Systems Nursing Education Model include:

i. Each individual nursing student is considered unique with known and understandable common characteristics.

ii. Each student encounters stressors during their nursing education. These can be universal in nature, known and unknown

iii. Each student has a self-created normal range of responses within their personal environment that is referred to as the normal line of defense.

iv. When the cushioning effects of the flexible line of defense can no longer protect the student from the stressor(s); the stressor(s)breaks through the normal line of defense

v. The student, whether in a state of adaptive hardiness (positive adaptation) or maladaptive dissonance is a dynamic composite of the variables (physiological, psychological, sociocultural, developmental, and spiritual).

vi. Implicit in each student are internal resistance factors known as lines of resistance, which function to stabilize the student and return the student to optimal states of performance on the hardiness-dissonance continuum, following a stressor reaction.

vii. Primary prevention relates to the general knowledge that is applied to assessing the student and creating interventions through early identification and mitigation of the circumstances that pose actual or potential risk factors that can affect academic and clinical performance, and prevent possible negative and maladaptive reactions.

viii. Secondary prevention relates to the general knowledge of what is applied to actual student reactions to stressors and the creation of interventions that can be employed by both teacher and learner to reduce further threats by stressors to the student.

ix. Tertiary prevention relates to the adaptive processes and interventions that can be employed after there has been negative adaptation to the stressors and there has been dissonance between academic standards and the student's performance.

x. The student is a dynamic individual in the center of the nursing education-learning environment. Each student has unique learning needs, which can be fostered with caring and concern by the teacher

The NSNSM underscores the absolute necessity for nurse educators to consider variables that the students are encountering while in nursing school, and to realize that each of these students have unique, special, and varying needs. Ultimately, it is observed that NSNEM emphasized more on nursing academia than clinical education (practice). Due to the above fact, the researcher is not certain that this model can be considered as a theoretical underpinning for this study. Indeed, the model cannot be used successfully to frame the elements in this study.

Proposed Synergy Model of Preceptorship for Learning and Care

Zilembo & Monterosso (2008) proposed Synergy Model of Preceptorship for Learning and Care. (Curley, 1998), as a 'Patient Care Model', developed the original version of this model. He defined synergy as 'an evolving phenomenon that occurs when individuals work together in mutually enhancing ways toward a common goal'. The purpose of this model is to link the concepts of leadership, preceptorship (supervision), learning, and the learning environment, and show that leadership is a unique phenomenon defined exclusively by the context in which it exists. Leadership could be provided by a preceptor (supervisor), clinical instructor, and experienced staff nurses. However, this model makes use of the preceptor as he/she 'sandwiched' the academic environment (classroom) and clinical learning environment (Zilembo & Monterosso, 2008).

Corroboratively, studies have shown that clinical rotation exposes nursing and midwifery students to the realities of nursing which can be both disillusioning (Clare, Edwards, Brown & White 2002; & Lockwood-Rayermann, 2003). Indeed, it is observed to be an opportunity to look at how experienced nursing and midwifery students demonstrate understanding and compassion through communication and care provision. The theoretical framework presented here proposes that when students witness leadership qualities of compassion and care demonstrated by their preceptors (supervisors), it does not only enhance their rotation experience, but also enhance positive health outcomes for patients and their relatives. The study conducted by Zilembo & Monterosso (2008) exposed that nursing students rated competence as a desired leadership characteristic, and perceived that through learning from an experienced and competent nurse, the student nurse is exposed to effective clinical rotation practices which directly enhance the student's own development of self-confidence and competence, likewise the supervisors (Spouse, 2001). When preceptee is matched with a nurse preceptor (supervisor) that demonstrates leadership behaviors defined by students as desirable, the student directly benefits from his/her exposure to learning opportunities, socialization and orientation to the culture of nursing and guidance (Coudret et al., 1994). Nurse preceptors also benefit from participating in the preceptorship experience in terms of intrinsic rewards such as teaching opportunities and enhancing one's knowledge base (Usher, Nolan, Reser, Owens, & Tollefson, 1999). Research suggests that nurse preceptors who enjoy and are supported in their role report higher levels of job satisfaction (Zilembo & Monterosso, 2008).

Apparently, Kerfoot (2002) emphasized that the leader must take responsibility for development of environments where optimal learning experience as well as patient's care is achieved through the matching of student or patient needs and nurse competencies. The creation of such environments was viewed by the author to be the result of a leader, who is able to address and influence outcomes relating to not only self (the nurse), but also the patient and system. Indeed, the fundamental concept of this model assumes nursing students (preceptees) will gain positive clinical rotation experience when the nurse preceptor (supervisor) proves some desirable qualities of a nurse preceptor, relevant to professionalism and leadership inter alia. The other underlying principles of the model also highlight that individual personalities and circumstances vary which in turn affects the approach the nurse preceptor (supervisor) needs to adopt in order to realize a positive clinical learning environment via the embodiment of clinical leadership skills and competence. Nurse preceptors (supervisors) benefit from taking part in the supervisory (preceptorship) experiences in terms of intrinsic rewards such as teaching opportunities and enhancing one's knowledge base (Atakro & Gross, 2016a; Usher, Nolan, Reser, Owens, & Tollefson, 1999). Similarly, research proposes that nurse preceptors who enjoy, and are supported in their role report higher levels of job satisfaction (Myrick, 2015). Indeed, the researchers endorse specific preparation for students regarding the form and function of contemporary supervision/preceptorship to ensure that students begin practical rotation with realistic expectations of supervisory relationships and the learning environment. More so, nurse preceptors themselves need ongoing support and

preparation for the role as a collaborative effort between healthcare institutions and tertiary education providers.

Ultimately, this model proposes that the synergetic interaction between nursing students and nurse preceptor's results in the positive implications for nursing workforce. This model has the potential for further development to fill the void created by a lack of conceptual guidance for supervisory interactions within the undergraduate clinical context. As a result, the researcher may not be comfortable using this model as a theoretical underpinning for the current study.

Theoretical Framework

The theoretical model that underpinned this current study, shown in Figure 1, is the 'Proposed Model for Clinical Nursing Education and Training by the Nursing Education Stakeholders (NES) Group, (2012). Various stakeholders in South Africa recognized several challenges militating against clinical nursing education in South Africa and came out with this proposed model to guide clinical education practice and to enhance positive clinical rotation (learning) experiences and satisfaction. The stakeholders met in September 2010 and identified the clinical nursing education and training of nurses and midwives in pre-registration programs as an important area of concern in addressing factors hindering clinical practice experience of students and improving the quality of clinical nursing education (FUNDISA) (Jooste, Jasper, & Town, 2012). Corroboratively, there is global evidence to support the fact that effective clinical education and training contribute to quality nursing education and that both lead to improved patient health outcomes (Al-kandari et al., 2009; Cowan et al., 2007).

The major principles of the model for clinical nursing education and training suggested by the Nursing Education Stakeholders Group (2012) to optimize learning in clinical settings and produce competent nurses and midwives include:

i) Clinical practice for experiential learning in which students can work with patients without forming part of any service team are distinguished from clinical practice for role-taking (work-based learning), during which students do form part of the service team;

ii) A system of clinical supervisors (preceptors) is implemented which ensures a minimum level of clinical teaching and support for students during their clinical rotation practice for role-taking; and identifying factors influencing students learning.

iii) A designated person, the Clinical Placement Co-coordinator, manages the total clinical teaching system and ensures its functioning and quality;

iv) When students are doing role-taking practice (clinical rotation), their teaching and support also form part of the job descriptions of clinical supervisors and nurses who are in charge of nursing teams where they are allocated.

v) Students are only placed in clinical facilities where a certain level of quality of nursing care, based on clearly defined standards, is given. A Positive Practice Environment (PPE) and establishing where such a PPE is available, is the responsibility of the nursing education institution (NEI).

vi) Nurse educators are expected to remain clinically competent in their field and be part of the clinical preceptor team.

vii) Clinical experts in practice are recognized and involved in classroom teaching in order to provide clinical role models for students. Such experts will be called Clinical Teaching Associates (CTA).

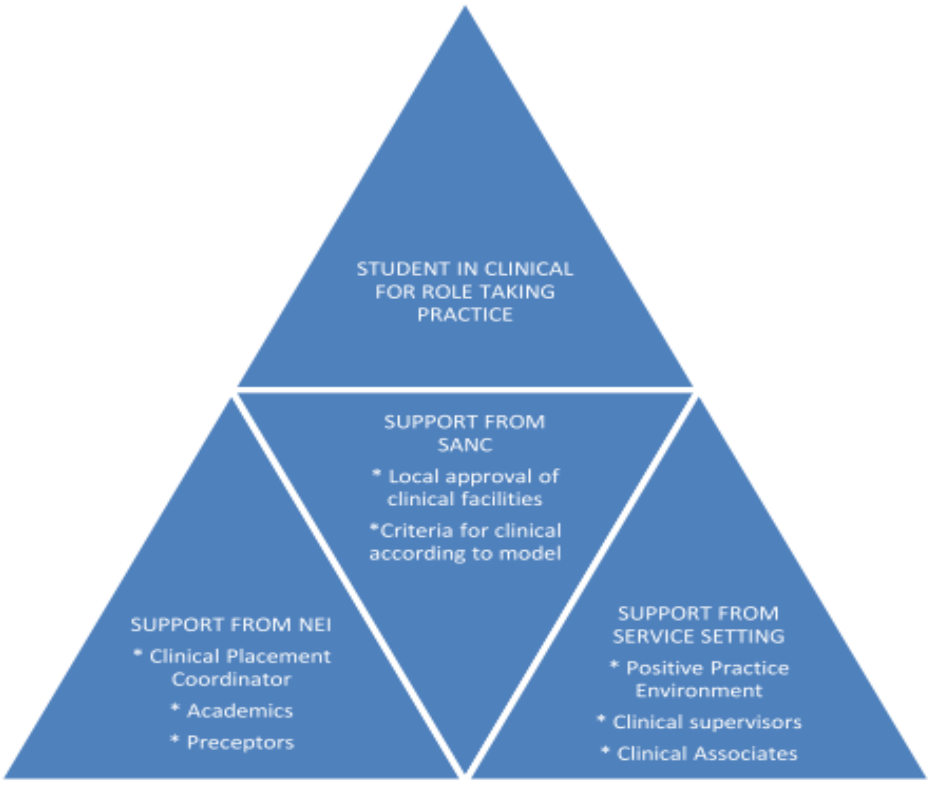


Figure 1: Proposed Model for Clinical Nursing Education and Training (**Nursing Education** Stakeholders **(NES) Group, 2012)**

Conceptual Framework

The conceptual framework for this study, as shown in Figure 2, depicts the involvement of three (3) major stakeholders including the nursing and midwifery students (who are the focus of the satisfaction with rotation experiences). Clinical learning environment (healthcare system) where the

nursing and midwifery students adapt to the role changes, and nurse supervisors/preceptors (who supervise and teach students) in clinical learning environment.

The conceptual framework is adapted from the Proposed Model for Clinical Nursing Education by The Nursing Education Stakeholders (NES) Group (2012) as shown in figure 1. The changes made to the original model are that, the central part of the model is replaced by "satisfaction with clinical rotation experience", which is the dependent variable of the study objectives. Bold arrow was used to explicitly explain how the three components including nursing and midwifery students, CLE, and CS influence students' satisfaction with CRE. It is clear in figure 2 that, there are three arrows pointing to the center of figure 2. What it means is that, students' characteristics such as attitude, enthusiasm, demographics among others may affect their clinical learning experiences. Equally, support from clinical supervisors and other experienced staff nurses has the tendency of influencing students' learning experiences. More so, CLE is a complex social entity that has great influence on the rotation (learning) experiences of nursing and midwifery students. Supportive CLE enhance students' satisfaction with CRE and vice versa.

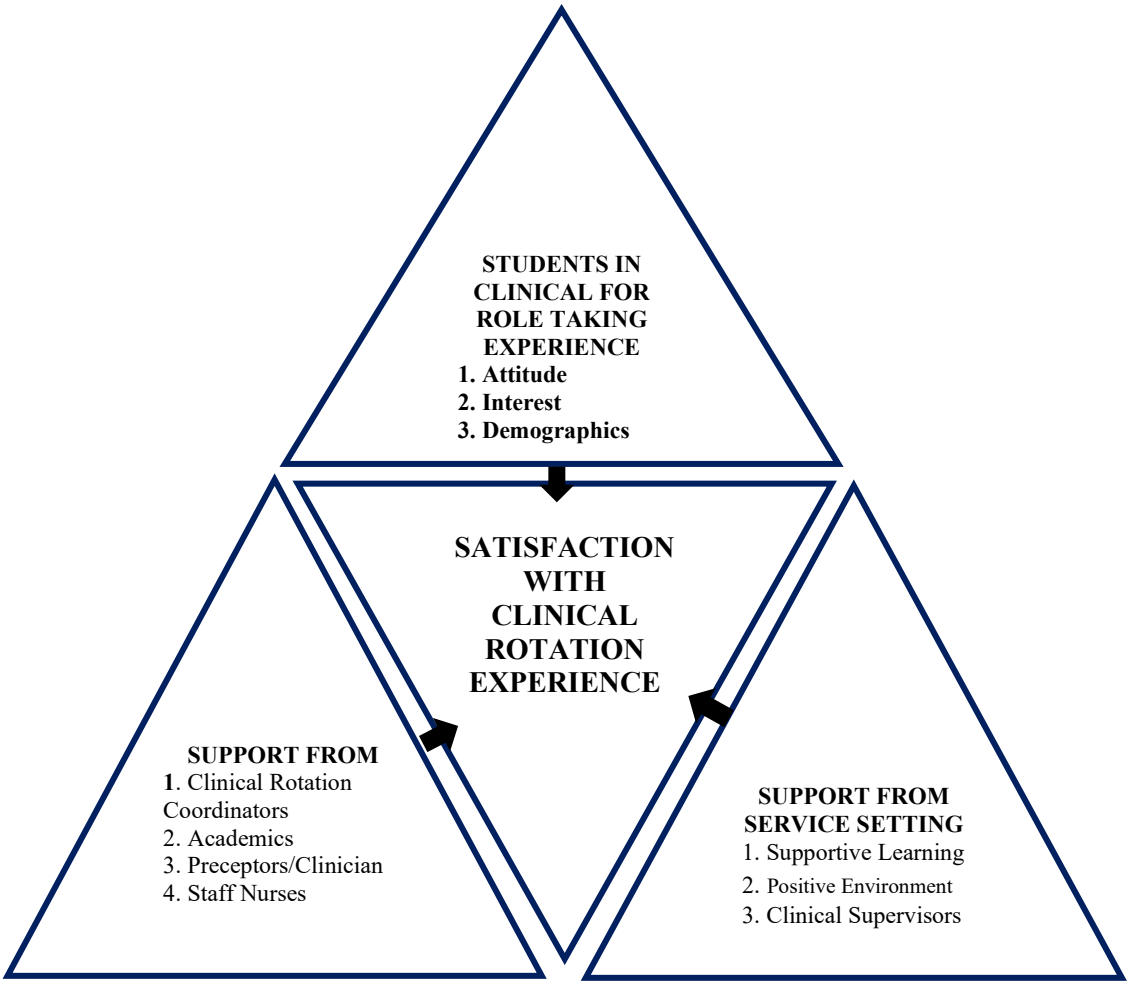


Figure 2: Conceptual Framework for the Study (Adapted from The Nursing Education Stakeholders (NES) Group, 2012)

Summary and Conclusion Drawn from the Literature

Clinical rotation (placement) experience (CRE) is an important aspect of nursing education worldwide due to its importance in the preparation of the undergraduate nursing and midwifery students for future. CRE is relevant in today's student nurses' needs to have the opportunity to experience rotation placements in various facilities within the care environment to enable them make positive career choices to become experienced practice nurses in the future. The development of clinical knowledge, skills and experience are the basis of clinical nursing practice. This makes clinical nursing practice an

essential component of nursing education. Nursing and midwifery students should be guided to a stage where they can assume responsibility for their nursing actions (Van-Rhyn & Gontsana, 2004: p. 25) through adequate clinical rotation experience.

The core objective examined in the review is to assess the factors influencing satisfaction of undergraduate nursing and midwifery students with their CRE. The literature was reviewed based on chronological manner in which the objectives were set. First, an extensive empirical literature review was done on clinical rotation (placement) experience, the concept and role of clinical supervision, and the concept of clinical learning environment in enhancing CRE of nursing and midwifery students. Additionally, there is review of literature on three selected theoretical models underpinning this study, including the theoretical framework. The researcher's observation is that there are numerous qualitative literature within and outside Africa supporting the study area. However, only paucity of literature in Africa is concentrating on the CRE of nursing and midwifery students. The few that was carried out in Africa did not concentrate on CRE and was qualitative and explanatory in nature and do not explore the construct (CRE) to ascertain the magnitude of the challenges with quantitative approaches. This study will fill the existing knowledge gap in this area of research in Africa as a whole, and Ghana in particular by assessing the level of satisfaction with CRE, which underrates nursing students.

CHAPTER THREE

RESEARCH METHODOLOGY

This section sets out and describes the overall approach and principles that guide the conduct of this study. The following topics are discussed in this section: research design, study area, study population, sample size determination, sampling procedure, data collection instruments, validity and reliability, ethical consideration, data collection procedure, data management, data analysis, data preparation, and statistical analysis.

Research Design

Research design is a complete plan for data collection in an empirical research scheme. It is a design aimed at answering specific research questions or testing specific hypotheses (Bhattacherjee, 2012). Depending on the aims and objectives of a study, different researchers utilize different research designs such as laboratory experiments, field experiments, field surveys, case research, phenomenology, ethnography, etc. to conduct their studies.

This study employed analytical cross-sectional survey design, using quantitative method to assess factors influencing satisfaction with clinical rotation experiences of undergraduate nursing and midwifery students. Bhattacherjee (2012) identified external validity, ability to capture and control for a large number of variables, and ability to study a problem from multiple perspectives or using multiple theories as some of the strengths of cross-sectional surveys. Cross-sectional studies are also generally quick, easy and cheap to conduct (Sedgwick, 2014). Based on these advantages of a cross sectional survey, it is found to be suitable for this study.

Study Setting

The study was conducted in the University for Development Studies (UDS) in the Northern Regional Capital of Tamale, at the Nursing Department. UDS was established in 1992 as a multi-campus institution. It is the fifth public University to be established in Ghana. This deviates from the usual practice of having universities with central campuses and administrations. It was created with the three Northern Regions of Ghana in mind (Northern Region, Upper East Region and Upper West Region). The Tamale campus houses the School of Medicine and Health Sciences and School of Allied Health Sciences of which Nursing and Midwifery Department are part. The researcher chose the setting because it is a tertiary institution and the researcher observed that nursing and midwifery students from UDS were haven some challenges with regards to experiential learning within the clinical environment during their clinical rotation practices.

Study Population

Population is the total number of members targeted by the research as defined by the aims and objectives of the study (Morris & Doak, 2002). The undergraduate nursing and midwifery students in level 300 and 400 at the Nursing Department in UDS, who have several number of clinical rotations practice schedules were targeted for participation as they had already been exposed to different clinical settings and experiences. They would therefore be able to reflect on their various experiences during clinical practice rotation and can respond to research questions appropriately. As at 2017/2018 academic year, the total number of regular nursing and midwifery students in Nursing and Midwifery Department, UDS, was 715 according to students register. For the

purpose of this study, eligibility criteria were set to ensure that, the population is relevant to the study questions.

The inclusion criteria was that both post-diploma and generic nursing and midwifery students who were regular students and had satisfactorily completed at least, a minimum of two or more clinical rotation experience. In addition, those students who were in level 300 and 400 were included in the study.

Persons who were excluded from the study were those in level 100 and level 200, and those who were distance students. This is because students at level 100 and 200 might not have enough clinical experience to answer the research questions objectively. In addition, nursing students in the field or community were excluded from the study because they may not be available to take part in the study.

Sample Size Calculation

The sample size was determined using a formula developed by Yamane Taro (Yamane, 1967). This formula takes into account the target population and the margin of error or level of precision. The formula is expressed as $n= \frac{N}{1+N(e^2)}$, where n is the sample size, N is the population size, and e is margin of error or level of precision. N= 482, and e = 0.05.

Therefore, in substituting in the values, $n= \frac{482}{1+482\ (0.05^2)}$

n = 218.

Adding 10% of the sample size (218) as recommended by Israel (2009), a final sample of 240 was realized. As such, 240 participants were sampled from the target population of 482 for the study.

Sampling Procedure

Sampling is a process of selecting a portion of the population to represent the entire population (Lobiondo-wood & Haber, 2010). A stratified random sampling technique was used to select study participants from a total sample frame of 482 nursing and midwifery students (General nursing [340] and midwifery [142] department). Stratification is grouping of the unit comprising a population into homogenous groups or strata, before sampling randomly or systematically within these groups to ensure each group is adequately represented (Bhattacherjee, 2012).

In this study, the participants were segmented into two (2) sub-sets (categories) based on general nurses and midwives. Then a number of student nurses in each sub-set was further grouped in two, general nursing students in level 300 (172) and level 400(168), and midwifery students in level 300 (80) and 400 (62). The researcher than chose the sample based on the proportion of nursing and midwifery students from each category or strata in the total population. Thus, general nurses who constitute 70% of the total population were 170 students, whiles midwifery students who consist of 29.1% were also 71 participants. This particular type of stratified sampling is defined more precisely as proportional stratified sampling (Bhattacherjee, 2012). The Statistical Package for Social Science (SPSS) was then used to generate a random sample from the sampling frame of each sub-set or a category to constitute a sample size of 240 participants. The figure below is a schematic representation of sampling process.

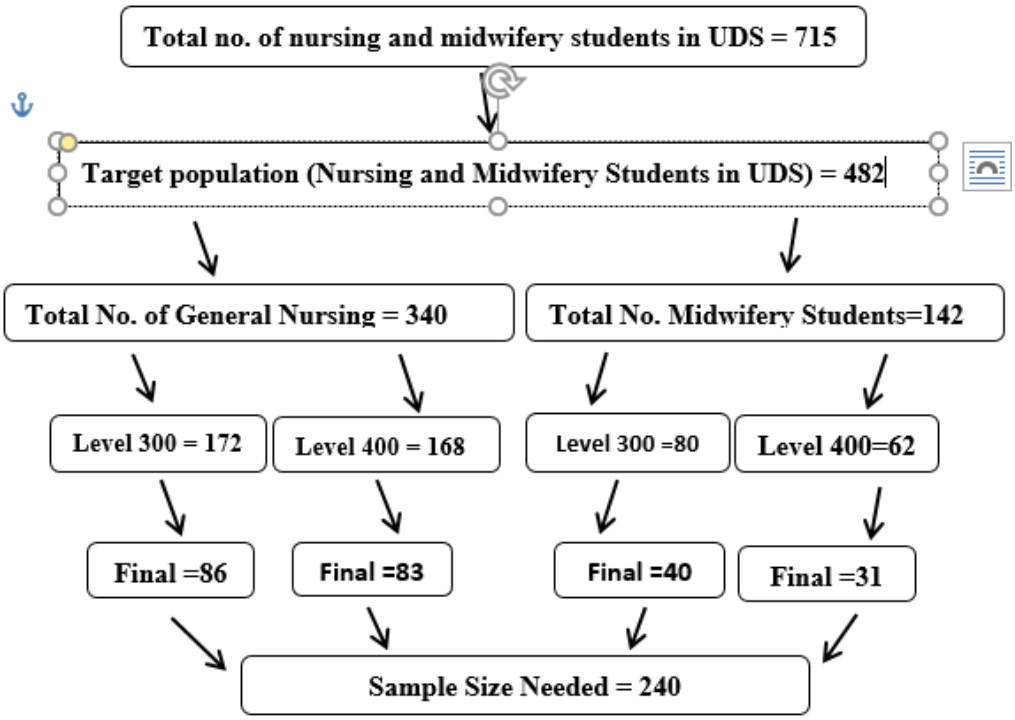


Figure 3: Schematic Representation of the Sampling Process

Source: Self (2018)

Instruments for Data Collection

The instrument for data collection was questionnaire, which the researcher adapted through literature search to base on the objectives of the study. The survey questionnaire was a structured one on Likert scale, with mainly close-ended questions ranging from 1-strongly disagree, 2-disagree, 3-neutral, 4- agree, and 5-srongly agree, with the minimum score being 1, and maximum score being 5 (See appendix B).

The data collection instrument comprised of four (4) main sections. The sections include data on respondents' demographic characteristics, and explore three (3) thematic areas of the study. The level of nursing and midwifery students' satisfaction with Clinical Rotation Experience (CRE), satisfaction with clinical supervision (CS) or role of CS on satisfaction with CRE, and satisfaction with clinical learning environment (CLE) or the role of CLE on

satisfaction with CRE. Section 'A' contained the biographic data of respondents such as age, gender, marital status, religion, ethnicity, financial support, category of student nurses, and the level of entry of the program. Section 'B' determined student's satisfaction with CRE. Section 'C' determined students' satisfaction with CS as well as the role of CS on nursing student's satisfaction with CRE. Section 'D' also determined students' satisfaction with CLE and the role of CLE on nursing and midwifery students' satisfaction with CRE.

This study used the adapted versions of Clinical Learning Environment Inventory (CLEI) and Clinical Learning Environment, Supervision, and Nurse Teacher (NT) Evaluation Scale (CLES + NT evaluation Scale). The validated instrument, CLEI was developed by Chan (2001), which contains 35 items, with seven (7) items measuring each of the scales, namely Personalization, Student Involvement, Task Orientation, Innovation, and Individualization and Satisfaction. Out of the 35 items, 22 items were adapted to measure research question one (See appendix B).

Additionally, CLES + NT evaluation Scale was developed by Johansson et al (2010), as a psychometric evaluation of the nursing students and nursing teachers on clinical supervision and clinical learning environment. It consists of four main domains including; supervisory relationship (21 items measuring supervision), pedagogical atmosphere on the ward (10 items measuring it), leadership style of the ward manager (measured by 4-iterms), and premises of nursing on the ward (measured by 6-items). The researcher adapted second instrument to measure CS and CLE, which consist of 41 items, with 21 items measuring CS and 20 items measuring CLE and its dimensions (Pedagogical

atmosphere of the ward, leadership style of ward manager, and premises of nursing in the ward) (See appendix B). The items in this section was based on factors that have been identified in the literature as being factors influencing nursing students' satisfaction with clinical rotation experience.

Summary of Study Variable, Definitions and Measurements

Variable	Conceptual Definition	Operational Definition	Measurement
Satisfaction with clinical rotation experience	Fulfilment of a desire of clinical practice rotation	Being able to achieve knowledge, skills and attitude necessary for clinical practice	Clinical learning environment inventory (CLEI) (22 items)
Clinical supervision	Is a process that enhances growth, development, and increases skills and knowledge in a given profession, while building a trusting relationship between a supervisor and a supervisee	A role where the experienced registered nurse supervises and facilitates student learning through guidance and support in the clinical arena	CLEIS + NT Evaluation scale (21 items)
Clinical learning environment	It is a healthcare facility, where patients seek their medical and surgical assistance	Is an authentic clinical space where students practice for their clinical skills with the outcome of professional competence development and an eventual readiness to become registered nurses or midwife	CLEIS + NT Evaluation scale (20 items)
Pedagogical atmosphere	It is a platform for teaching and learning	Conducive nurture of ward environment for clinical teaching and learning	CLEIS + NT Evaluation scale (10 items)
Leadership style of ward manager	The leadership style employed by nursing in charges to manage the hospital ward	It has to do with the types of leadership behaviors that result from combining high and low supporting behaviors	CLEIS + NT Evaluation scale (4 items)
Premises of nursing	learning situations on the ward involve nursing procedures	It consist of the culture and values of nursing in the ward, information flow related to patient's care, documentation of nursing care plans	CLEIS + NT Evaluation scale (6 items)

Pre-test/Pilot Study

The questionnaire was pre-tested at the UDS, Tamale Campus in early March, 2018. The researcher personally administered the pre-test questionnaires among nursing and midwifery students in UDS Nursing and Midwifery Department. The piloting was carried out on the sample of 10% (n=24) of the total sample (n=240) as recommended by Israel (2009). The total number of items in the questionnaire was 71-items measuring the study variables. The questionnaire was modified after the pretest. For example, questions 5 and 6 were modified to avoid ambiguity. Question 5 was about ethnicity; all the northern tribes were represented as "Mole Dagbani", instead of listing various Northern tribes. Question 6 was about area of specialization, which was modified to "category of student nurses". However, the initial number of items in the questionnaire (71 items) were not altered after the modifications.

Data from the pilot study was statistically tested for normality and internal consistency of the instrument. The normality test for CS and CLE showed a statistically significant deviation from normality (Shapiro Wilk's test = 0.812, $p < .001$, and 0.752, $p < .001$ at the alpha level of .05 respectively). Whereas CRE normality test showed the data was normally distributed (Shapiro Wilk's test = 0.968, $p< 0.879$) (See appendix F). The results from the pre-test (See appendix G) predicted that, the data to be obtained from the actual study was more likely to be skewed (not normally distributed). It also suggested that participant's level of satisfaction might generally be high or very high.

Validity and Reliability of Instruments

Validity is the ability of an instrument to measure what it is intended to measure appropriately and accurately (Gerrish & Lathlean, 2015), A pre-test was conducted among ten (10) nursing students in UDS who were excluded from the study participants to help correct inappropriate questions and refine the instruments. The study was also designed in line with objectives and literature reviewed. Draft copies of the instruments were presented to research supervisors for face validity. About content validity, experts were asked to judge whether items in the instrument were duly represented in the construct to be measured (Gerrish & Lathlean, 2015). A number of researchers recommend the rating of items in an instrument on a four-point scale; 1-strongly disagree, 2-disagree, 3-neutral, 4-agree, and 5-strongly agree (Chan, 2001) to achieve content validity index (CVI). A score of 0.7 and above perhaps shows a good content validity for an instrument (Bowling & Ebrahim, 2005).

Reliability on the other hand is the degree to which an instrument measures the same way, each time it is used under the same condition with the same subjects or the repeatability of a measurement (Gerrish & Lathlean, 2015). A questionnaire is said to be reliable when its Cronbach's alpha statistics exceeds 0.70 (Macneen & McCabe, 2006). Cronbach's alpha statistics is the most common measure of reliability of the research instrument (internal consistency). The above test is commonly used when the data is measured on Likert questions in a survey or questionnaire that form a scale and the researcher wish to determine if the scale is reliable. This means the instrument can be relied on to produce a good results for the study. To determine the reliability coefficient of the instrument, the researcher subjected the data to Cronbach's

alpha test, and the analysis of the results from the pilot study in UDS showed a Cronbach's alpha statistics of; CRE (0.86), CS (0.91), and CLE (0.90)which were deemed reliable (inferred from literature). (See Appendix E).

Data Collection Procedure

Data collection was done personally with the help of the research assistants from the period of March 12, 2018 to April 2, 2018 at the UDS, Tamale Campus. The questionnaire along with the cover letter to introduce the study purpose and the rights of the participants were distributed to the participants by the researcher and his assistants, which paved way for the researcher to collect the data in UDS at the Nursing and Midwifery Department. The information sheet contains clarification of ethical issues concerning confidentiality and anonymity, and provide further contact information for participants, which were provided, in case they have concerns and recommendation to make (See appendix A). This idea is supported by Gerrish and Lathlean (2015). The role of the research assistants was to help administer or distribute the questionnaire and to collect the answered questionnaire from the respondents. The participants were selected randomly from the stratified list, and invited to participate in the study. Participants were approached during break hours. All participants who were contacted agreed to participate in the study and were asked to sign an informed consent form.

After signing the informed consent form, the study participants were given a maximum period of one week, within which to complete answering the survey questionnaire. The researcher and his team then went around to the various lecture halls and collected the completed questionnaires. For those who could not complete the survey by that time, another week was given for them to

complete the survey questionnaire, after which the researcher and his assistants went round for the completed questionnaire.

Data Management

The questionnaires, during the data collection process were kept in a separate envelope (General Nursing and Midwifery), which were sealed until the researcher was ready to process the data in SPSS. During data entry process, individual questionnaire that had been entered was marked 'entered' to avoid generating duplications of data. After completing the entry of all the questionnaires, they were packaged in an envelope and labeled completed and locked away in a cabinet for a period of one week. Throughout the process of data entry, the statistical software (SPSS) was set to automatically save data at the minimum interval allowed, and the researcher did manual savings every ten minutes to avoid accidental loss of data. At the end of each day, the data was backed up on an external drive as well as Microsoft 1 drive and given password to protect the data from the third parties.

Ethical Consideration

According to Polit and Beck (2010), researchers must deal with ethical issues when their intended research involves human beings. A letter to seek for approval, coupled with a detailed research proposal was sent to Institutional Review Board (IRB) of University of Cape Coast (UCC) through the Dean of School Nursing and Midwifery. The study was conducted after obtaining approval from the IRB of UCC (See appendix C). Additionally, an ethical approval was obtained from the Dean of School of Allied Health Sciences, UDS Tamale (See appendix D). Access to the participants was also gained through the head of Departments of Nursing and Midwifery, UDS. Prior to the

commencement of the questionnaire distribution, all participants were informed about the objectives and design of the study. A written informed consent was sought from the research participants and signed, whiles confidentiality of all information provided by participants was ensured. Information about their freedom to withdraw at any stage was emphasized. Since the researcher adapted some measuring instruments from other researchers, several attempts were made to reach the authors to seek permission to use the tools but to no avail. However, an instance where the tools were available for use without prior permission of the author (s), due acknowledgement was made.

Confidentiality and anonymity are the corner stone of ethical issues in research involving humans. The research participants were made to understand that only the investigator and two of his assistants could identify the responses of individual subjects. However, the researcher and his team made every effort to prevent anyone outside of the project from connecting individual subjects with their responses. The researcher used the informed consent process to brief subjects about the measures in place in the study to ensure anonymity and confidentiality of their data. The participants were convinced to understand that only the researcher and his assistants could have access to the data. In addition, data documents will secured within locked locations. Moreover, data in soft copy form, security codes were assigned to computerized records. In addition, data or results of the study were anonymously reported, to protect the identity of the participants.

Data Analysis

Data analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data-groups. Thus, “in

the process of analysis, relationships or differences supporting or conflicting with original or new hypotheses should be subjected to statistical tests of significance to determine with what validity data can be said to indicate any conclusions" (Sin, 2012). The data analysis involves data preparation and statistical analysis (Bowling &Ebrahim, 2005).

Data Preparation

Data preparation describes checking, editing, coding, and transforming data for the purpose of data analysis. This aspect seeks to elaborate on the sequence of data preparation and statistical analysis.

After retrieval of the completed questionnaire from the study participants, the questionnaires were checked to ensure they were properly filled. Questionnaires that were not properly filled were rejected, but replaced for the data processing and analysis. The researcher ensured that the data was not accessible to anyone except him, by putting the completed questionnaire into a drawer and locked until the data was ready for the analysis. The researcher personally entered the data into Statistical Package for Social Sciences (SPSS) Software for Windows Version 23 in a computer for statistical analysis. This happened after the data was cleaned and coded. In addition, the data was edited to avoid any missing values or variables in SPSS. To ensure this, frequencies were run for physical verification of the missing variables and corrected accordingly. Moreover, all ordinal variables were transformed into dichotomous variable to allow for better result presentation, discussion and communication of findings. For instance, strongly disagree and disagree were put together, whiles agree and strongly agree were also added together (See appendix H).

In furtherance, all the items in the questionnaire measuring each variable of the three main variables (Satisfaction with CRE, CS, and CLE) were coded and transformed into one main variable for all the three variable mention above, for easy analysis of the data. For instance, 22 items were used to measure students' satisfaction with CRE. These items were coded and transformed into one main dependent variable measuring CRE satisfaction. The same procedure was followed for the rest of the variables (CS and CLE). The data was primarily measured at ordinal level on Likert scale, ranging from 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-atrongly agree. However, the levels of satisfactions were further categorized into four, based on participants' total satisfaction score on this scale. However, some few data measurements were at the nominal and continuous level. The total score on the scale rested on the number of items measuring each variable. For example, 22 items, which when multiply by 5, measured CRE's satisfaction (highest level of satisfaction [5*22=110]). The range of scores will then be from lowest to highest (1-110), with 1 – 27 (very low), 28 – 54 (Low), 55 – 81 (High), and 82 – 110 (Very high).

Similarly, 21 items were used to measure CS on Likert scale ranging from 1-5 (1- strongly disagree and 5-strongly agree), which were coded and transformed into one main variable, measuring CS satisfaction. Like CRE, 4-level scale was developed to explore participants' level of satisfaction with CS. For instance, if a participant scored 1-26 (very poor CS), 27-52 (poor CS), 53-78 (good CS), and 79-105 (very high).

Similar procedure was followed for CLE. Again, four level scale was developed, using SPSS to measure participants' satisfaction level with CLE.

The highest score rated on the Likert scale (5) multiplied the total number of items measuring CLE in the questionnaire (5*20=100). If a participant scores 1-25 (very low satisfaction with CLE), 26-50 (low satisfaction with CLE), 51-75 (high satisfaction) and 76-100 (very high satisfaction with CLE).

Statistical Analysis

The aim of statistical analysis was to determine the level of satisfaction with Clinical Rotation Experience (CRE) of undergraduate nursing and midwifery students. This was achieved through research question one. The study also aim to determine the level of students' satisfaction with Clinical Supervision (CS) and Clinical Learning Environment (CLE), as well as determining the association and prediction between CS, CLE (independent variables) and CRE (dependent variable). These were achieved through question 2 and 3 respectively.

The data was analyzed using Statistical Package for Social Sciences (SPSS) Software for Windows Version 23. The data analysis started with descriptive statistics. Demographic characteristics were summarized using frequency distribution tables and percentages. Concerning research question 1, 2 and 3, frequency distribution tables and percentages were used to assess the level of students' satisfaction with CRE, CS and CLE.

The second aspect of statistical analysis involved determination of statistically significant association between study variables. Inferential analysis such as chi-square test of independence (Fisher's exact test) was used to analyze question 2 and 3 to determine the association between CS, CLE, some selected demographic variables (age, gender, student category and level of entry) and CRE satisfaction (dependent variable). Fisher's exact test was used to determine

statistically significant associations where data deviated significantly from normality, and where cells have expected frequency count less than 5.

Where statistically significant associations existed, such categorical variables were entered in to logistic regression model (Linear regression) to determine the strength of association between satisfaction with CRE and respective predictors (CS and CLE, and some selected demographics). At the 95% confidence interval, p-values less than 0.05 (5%) were deemed statistically significant.

Finally, a correlation analysis was done to predict the association between students' satisfaction with CRE and dimensions of CLE. (pedagogical atmosphere of the ward environment, leadership style of ward managers, and premises of nursing in the ward). A Spearman's rho correlation test was used to predict the association between dimensions of CLE and satisfaction with CRE.

Study Variables

The definitions of the study variables were shown through a literature search from the various studies with some modifications. Six variables are described, including Clinical Rotation Experience (CRE), Clinical Supervision (CS), Clinical Learning Environment (CLE), Pedagogical atmosphere of learning environment, Leadership style of ward manager, and Premises of nursing in ward environment.

Clinical Rotation Experience

Clinical Rotation Experience is the dependent variable. It is defined as the settings (hospitals/clinics) where students are assigned for particular clinical learning experiences (Al-kandari et al., 2009). In this study, which assesses

factors influencing clinical rotation experience (CRE) of undergraduate nursing and midwifery students, satisfaction with clinical rotation experience was used as an outcome measure of CS and CLE. This dependent variable was measured using adapted version of CLEI, and consist of 22 items ranging from 1-5 (1-strongly disagree and 5-strongly agree). The range of score for the scale was 1-35. Based on the scores in this scale, participants were grouped in to four main categories. These categories include; very low (1 – 27), low (28 – 54), high (55 – 81), and very high (82 – 110).

Clinical Supervision

Clinical Supervision is the second variable, which is referred to as a role where the experienced registered nurse supervises and facilitates student learning through guidance and support in the clinical arena, providing links between theory and practice, and undertakes formative and summative assessments (Franklin, 2013). This independent variable was measured on Likert scale 1-5, using the adapted version of Clinical Learning Environment, Supervision, and Nurse Teacher Evaluation Scale (CLES + T evaluation Scale), which consists of 21 items.

Clinical learning environment

Clinical learning environment is an authentic clinical space with real patients where students practice for their clinical skills with the outcome of professional competence development and an eventual readiness to become registered nurses. It includes everything that surrounds the nursing work, including the clinical settings, the staff and the patients (Hathorn, 2006) inter alia. CLE consist of 20 items, which was measured on the Likert scale from 1-5, using adapted version of Clinical Learning Environment, Supervision, and

Nurse Teacher Evaluation Scale (CLES + T evaluation Scale). The data was coded and transformed in to 4-levels to measure students' satisfaction with CLE.

Pedagogical Atmosphere of the Ward

Pedagogical atmosphere determines whether the clinical learning environment is conducive for learning (Skaalvik et al., 2011). It involves hands-on-activities, which was measured by 10 items on Likert scale ranging from 1-5.

Leadership Style of the Ward Manager

Leadership style of the ward manager has to do with the types of leadership behaviors that result from combining high and low supporting behaviors namely: listening, providing feedback, and encouraging, supporting, appreciating, interest in supervising students (Akintunde, 2013) inter alia.

Premises of Nursing in Ward Environment

This refers to the nursing care and learning situations on the ward. It consist of the culture and values of nursing in the ward, information flow related to patient's care, documentation of nursing care plans, recording of nursing procedures, and sufficient meaningful learning situations on the ward (Skaalvik et al., 2011). Six item sub-scale was used to measure premises of nursing in clinical environment on Likert scale, ranging from 1-5 (1-strongly disagree and 5-strongly agree)

Summary of Chapter

This section presented the methodological issues that were taken into consideration in this study. The study employed a quantitative approach, using cross-sectional survey (questionnaire). A stratified random sampling technique was employed to recruit 224 participants from strata of general nursing students

and midwifery students at the University for Development Studies (UDS), Tamale Campus. The data collection instrument was survey questionnaire, which was adapted from Clinical Learning Environment Inventory (CLEI) and Clinical Learning Environment, Supervision, and Nurse Teacher Evaluation Scale (CLES + T evaluation Scale), through literature search. The data had validity and reliability indices of 0.7 and 0.86 respectively.

The data was analyzed using SPSS (IBM) software version 23, after the data was obtained from field, cleaned and coded. Demographic characteristics were summarized using frequency distribution tables. Descriptive statistics was used to analyze research question one. However, inferential analysis employed Chi-square test of independence to determine the association between dependent and independent variables, Simple Regression and Pearson's correlation to analyze research questions 1 and 2.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results of the study and discussion of the findings from the field. The study sought to assess the role of CLE and Supervision, as well as the undergraduate nursing and midwifery students' satisfaction with CRE in University for Development Studies (UDS), taking into account, the research questions and study objectives. Results of the study are presented in two major parts; the first part is descriptive statistics, which include the personal characteristics of the study participants, students' satisfaction with the clinical rotation practice experience, students' satisfaction with clinical supervision, and students' satisfaction with clinical learning environment. The second part is inferential statistics that presents the relationships between the study variables; personal characteristics of the students and students' satisfaction with the clinical rotation experience. The final sample size used was 224 participants in second and third year nursing and midwifery students, who had undergone some number of clinical practice rotation and are capable for answering the research questions.

Demographic Characteristics of Responders

Table 1 presents demographic characteristics of participants such as age, gender, marital status, religion, ethnicity, financial support of the participants, category of nursing students (area of specialization), and the participants' level of entry. Majority of the participants were in their 20s (mean age of 23.8 years). Females were more (58.5%) than males (41.5%). In addition, majority of the participants (78.6%) were single. 20.1% of respondents were married and only

1.3% were divorced. The majority of the respondents were Christians (75%) as compared to Moslems (22.3%). Ethnically, most of the respondents were Mole Dagbani (39.3%), followed by Akan (27.7%), and only 16.1% represented others. Additionally, participants' parents supported majority of the participants (55.8%) financially, and 29.9% took care of themselves throughout the nursing program. Moreover, General nursing students were more (71.4%) than midwifery students (28.6%). The Generics were more (79%) than the post diploma-nursing students (21%).

Table 1: Frequency Distribution of Demographic Characteristics of Participants

Demographic Characteristics	Frequencies (n=224)	Percentages (%)
Ages		
15-19	26	11.6
20-24	123	55.0
25-29	44	19.6
30-35	22	9.8
36-40	9	4.0
Gender		
Male	93	41.5
Female	131	58.5
Marital Status		
Single	176	78.6
Married	45	20.1
Devoice	3	1.3
Religion		
Christian	168	75
Moslem	50	22.3
Traditional	6	2.7
Ethnicity		
Mole Dagbani	88	39.3
Eve	17	7.6
Ga	21	9.4
Akan	62	27.7
Others	36	16.1
Nursing Category		
General Nursing	160	71.4
Midwifery	64	28.6
Financial Support		
Self	67	29.9
Sponsorship	15	6.7
Parents	125	55.8
Guardian	17	7.6
Level of entry		
Post-diploma	47	21
Generic	177	79

Source: Field Survey (2018)

Level of Nursing Students' Satisfaction with Clinical Rotation Experience

The first research question sought to find out the extent to which student nurses and student midwives feel satisfied with their Clinical Rotation Experience (CRE). Statistics about the level of satisfaction of participants with CRE is presented in Table 2. The majority of the respondents (65.6%) were in the category of high level of satisfaction with clinical rotation experience. Only a minority of respondents (0.4%) were in the lower satisfaction category.

Table 2: Participants' Level of Satisfaction with Clinical Rotation Experience

Category	Frequency	Percentage (%)
Very Low	1	0.4
Low	46	20.5
High	147	65.6
Very High	30	13.4
Totals	224	100

Source: Fieldwork (2018)

Participants' Level of Satisfaction with Clinical Rotation Experience Based on Selected Demographic Characteristics

As a further exploration of research question one (1), participants' level of satisfaction with Clinical Rotation Experience (CRE) was compared, using some selected demographic variables (age, gender, nursing category, and level of entry of program) to determine whether those variables influenced undergraduate nursing and midwifery students' satisfaction with CRE. These associations were determined using Fishers' exact. Because the cells have expected count less than five, Fisher's exact test was used to determine the

associations between satisfaction with CRE and some selected demographic characteristics. The results of these comparisons is presented in Table 3. The results indicated no statistically significant association between demographic characteristics and clinical rotation experience as illustrated in table 3.

Table 3: Association between Participants Background Characteristics and Satisfaction with Clinical Rotation Experience

Variables	Fisher's Exact Test	*Df*	N	*p* value (2-tailed)
Age	15.254	12	224	.241
Gender	5.346	3	224	.118
Nursing students' category	4.482	3	224	.201
Level of entry of students	5.002	3	224	.116

Test: Fishers' exact test. Significant at $p < 0.05$. Source: Fieldwork (2018)

Level of Nursing and Midwifery Students' Satisfaction with Clinical Supervision

The second research question sought to elicit the level of satisfaction of student nurses and student midwives with Clinical Supervision (CS). Statistics about the level of satisfaction of participants with CS is presented in Table 4. Majority of the respondents (60.3%) were in the category of those who said they had good clinical supervision, 20.5% had very good clinical supervision. Whereas minority (1.3%) indicated, they had very poor clinical supervision. This is illustrated in table 4.

Table 4: Participants' Level of Satisfaction with Clinical Supervision

Level of Satisfaction	Frequency	Percentage (%)
Very poor	3	1.3
Poor	40	17.9
Good	135	60.3
Very good	46	20.5
Totals	224	100

Source: Field Work (2018)

The Role of Clinical Supervision on Nursing and Midwifery Students' Satisfaction with Clinical Rotation Experience

Research question two also sought to present results on the influences of Clinical Supervision (CS) on student nurses and student midwives' satisfaction with Clinical Rotation Experience (CRE). However, in order to establish the influence of CS on CRE, Chi-square test of independence was used to determine the association between the two variables (CS and CRE). The cells were more than 20% of cells, containing expected frequencies less than 5. Therefore, Fisher's Exact Test was used to determine this association. The results indicated that, there was statistically significant association (χ^2 (9, N= 224) = 82.311, $p < 0.001$) between clinical supervision and nursing and midwifery student's satisfaction with clinical rotation experience. This statistic's results is presented in table 5. On this score, we fail to accept the null hypothesis, which states that, "There is no statistically significant association between clinical rotation experience and clinical supervision" and accept the alternate hypothesis, "There is statistically significant association between clinical rotation experience and clinical supervision".

Table 5: Fisher's Exact Test: Association between Clinical Supervision and Clinical Rotation Experience

Variable	Fisher's Exact Test	*Df*	N	*p* values
Clinical supervision and clinical rotation experience	82.311	9	224	0.000

Significant at $p < 0.05$ Source: Fieldwork (2018)

To explore further, the strength of the association between clinical supervision and clinical rotation experience, Linear Regression analysis was done to determine the strength of the association between clinical supervision and clinical rotation experience. The results showed that $R^2 = .392$, which indicates that out of all the total influences on CRE satisfaction, CS alone accounts for 39.2%, which is significant at 0.001(p value). 'B' (0.469), which shows that when CS increased by one, there is a corresponding increase in CRE by 0.469 (46.9%), which is significant at 0.001 (*p* value), representing the slope. This confirms that, there is significant association between clinical supervision and clinical rotation experience. The Linear Regression statistics is presented in table 6.

Table 6: Linear Regression Analysis: Strength of Association between Clinical Supervision and Clinical Rotation Experience

Variables	R^2	Unstandardized Coefficients		Df	*P* value	95% C.I.	
		B	Standard Error			Lower	Upper
Clinical super.	0.392	0.469	0.051	1.0	0.001	0.369	0.570
Constant		1.511	0.157			1.202	1.821

Significant at $p < 0.05$ Source: Field Work (2018)
Dependent variable: Clinical Rotation Experience satisfaction (CRE)

Level of Nursing and Midwifery Students' Satisfaction with Clinical Learning Environment

The research question three sought to assess the level of satisfaction of undergraduates nursing and midwifery students with Clinical Learning Environment (CLE). Statistics about the level of satisfaction of participants with CLE is presented in Table 7. Majority of the participants (63.5%) were in the category of those who said they had high levels of satisfaction with the CLE. However, minority of the respondents (0.4%) indicated that, they had very low satisfaction with clinical learning environment. This is illustrated in table 7.

Table 7: Students' Level of Satisfaction with Clinical Learning Environment

Level of Satisfaction	Frequency	Percentage (%)
Very low	1	0.4
Low	37	16.5
High	142	63.5
Very	44	19.6
Totals	224	100

Source: Field Work (2018)

Role of Clinical Learning Environment on Students' Satisfaction with Clinical Rotation Experience

This aspect sought to find out the influence of clinical learning environment (CLE) on satisfaction with clinical rotation experience (CRE) of undergraduate nursing and midwifery students, using inferential statistics. The statistical results about the influence of clinical learning environment on clinical rotation experience is presented in Table 8. To determine the association

between CLE and CRE, Chi-square test of independence was used for distributions where the frequency of the cells were 5 or more. Where the cells had expected count less than 5, Fisher's Exact Test was used. The results indicated that, there was statistically significant association between clinical learning environment and satisfaction with clinical rotation experience (χ^2 (9, N=224) = 80.665, $p < 0.001$), indicating that there was association between CLE and CRE. As a result, we failed to accept the null hypothesis, which stated that, "There is no statistically significant association between clinical learning environment and students' level of satisfaction with clinical rotation experience", and accept the alternate hypothesis, which stated that, "There is statistically significant association between clinical learning environment and students' level of satisfaction with clinical rotation experience"

Table 8: Fisher's Exact Test: Clinical Learning Environment and Clinical Rotation Experience

Variable	Fisher's Exact Test	*Df*	N	*p* value
CLE and CRE	80.665	9	224	0.001

Significant at $p < 0.05$ Source: Fieldwork (2018)

There was further exploration of objective three, to determine the strength of the association between clinical learning environment and clinical rotation experience, Linear Regression analysis was done. The Regression statistics is presented in table 9. The results showed that $R^2 = 0.282$, which means that out the total influences the predator variables exerts on CRE satisfaction, CLE alone accounts for 28.2 percent, which is significant at 0.001 (*p* value). In addition, the 'B' value, 0.511, represent the slope of the linear

graph. The slope represents the amount increased in CRE when there is a corresponding increase in CLE by 0.511 margin, which is significant at *p* 0.001.

Table 9: Linear Regression Analysis: Strength of association between Clinical Learning Environment and Clinical Rotation Experience

Variables	R^2	Unstandardized Coefficients		Df	*P* value	95% C.I.	
		B	Standard Error			Lower	Upper
CLE	0.422	0.511	0.055	1.0	0.001	0.404	0.619
Constant		1.374	0.169			1.042	1.707

Significant at $p < 0.05$ Source: Field Work (2018)

Dependent variable: Clinical Rotation Experience satisfaction (CRE)

Influence of Dimensions of Clinical Learning Environment on Satisfaction with Clinical Rotation Experience

Further analysis was done to explore the association between dimensions of CLE and nursing students' satisfaction with CRE. Spearman's correlation (Spearman's rho) test was used to further explore dimensions of CLE to determine which aspect of clinical learning environment influences student nurses and student midwives' satisfaction with clinical rotation experience most. Spearman's correlation coefficient was significant between the overall satisfaction and all the three dimensions *(p* < 0.001). There were positive correlations between satisfaction with CRE and dimensions of CLE. The statistics of this analysis is presented in table 10. In all the three dimensions of CLE, there were statistically significant associations between the dimensions and CRE. About the pedagogical atmosphere of the ward environment, which was the first dimension of CLE, there was weak positive correlation (*r* (224) =

.379**, $p < 0.001$) between the two (pedagogical atmosphere and CRE). Concerning leadership style of ward manager, there was weak correlation but, statistically significant relationship ($r = .340$**, $p < 0.001$) between the two. In addition, premises of nursing in the ward environment had good positive correlation ($r = .501$**, $p < 0.001$) with CRE.

Table 10: Bivariate Correlations between Students' Satisfaction with Clinical Rotation Experience and CLE dimensions

Variables	Spearman's rho	N	Sig (p)- 2-tailed
Pedagogical Atmosphere against CRE	0.379**	224	.000
Leadership style of ward manager and CRE	0.340**	224	.000
Premises of nursing in the ward against CRE	0.501**	224	.000

** Significant at $p < 0.01$ Source: Fieldwork (2018)

Discussion of Key Findings

In this section, the major findings of the study have been discussed. The discussion was organized and presented around the main research questions. The findings are interpreted and evaluated based on the empirical and theoretical evidence in the area of clinical nursing education. The discussion also includes other significant findings, allowing for the drawing of sound conclusions and recommendations.

Findings from this study indicated that, student nurses and student midwives had experienced high levels of satisfaction with Clinical Rotation Experience (CRE). The study also showed that Clinical Supervision (CS) had positive influences on satisfaction with CRE of undergraduate nursing and midwifery students. Likewise, the Clinical Learning Environment (CLE) played

a major role on the satisfaction with CRE of nursing and midwifery students. The study established that, factors such as clinical supervision, clinical learning environment, pedagogical atmosphere of ward environment, leadership style of ward manager, and premises of nursing in the ward, were the predictors of nursing and midwifery students' satisfaction with clinical rotation experience. Additionally, age, gender, level of entry, and student category had no statistically significant association on the graduate students' clinical rotation experience

Level of Nursing and Midwifery Students' Satisfaction with Clinical Rotation Experience

Concerning the level of satisfaction of undergraduate nursing and midwifery students with Clinical Rotation Experience (CRE), the findings from this study showed that nursing students generally have high levels of satisfaction with CRE; majority (65.6%) of participants fell in the category of high satisfaction group, whereas small number (13.4%) of them were in the category of very high satisfaction. This finding is similar to a quantitative study in Malaysia by Chuan and Barnett (2012), who found that, nursing/midwifery students reported a quite high level of satisfaction with their clinical rotation experience. Similarly, another study by Al Sebaee, Abdel Aziz, and Mohamed (2017), also reported that, majority of nursing students (70.8%) were in a category of high level satisfaction with their clinical rotation practice (experience), and only minority (41.6%) were those who had low level of satisfaction with clinical rotation practice. Al Sebaee and colleagues explained that students' satisfaction with clinical rotation practice (experience) was mainly because they met their placement objectives, enjoyed their time, and

worked with a team who were willing, and available to assist them in learning. In addition, nursing and midwifery students' needs were matched with their preceptors in clinical learning environment. This view is supported by Alspach (2006), who indicated that, an optimal satisfaction and orientation are best achieved when the needs of the nursing student are matched by the competencies of the supervisor/preceptor. Another study by Zilembo and Monterosso (2008) also confirm that, learning from an experienced, knowledgeable and competent nurse preceptor exposes nursing and midwifery students to effective clinical rotation experience, which directly enhances the student's satisfaction with CRE.

More so, this study found that, when students were asked to indicate if the clinical rotation practice was waste of time, majority (82.6%) agreed or strongly agreed that it was not waste of time. However, only small number of nursing and midwifery students (11.6) strongly disagreed or disagreed that, CRE was waste of time (See App. H). This finding is in line with findings by Perli and Brugnolli (2009), who found in their study that nursing students overall, rated (agree/strongly agree) their clinical rotation practical experience in the learning environment high (good). Third year students were extremely satisfied (94%) with activities done on the ward, while second year students moderately reported their satisfaction (88%). All the students (99%) agreed that they were highly satisfied with the clinical rotation practical work experience, and deemed as useful and not a waste of time.

Level of Nursing and Midwifery Students' Satisfaction with Clinical Supervision

Nursing and midwifery students' satisfactions with Clinical Supervision (CS) were investigated in this study. The principal findings showed that nursing and midwifery students rated highly, the supervision by the clinical staff. Majority of the respondents (60.3%) fell in a category of those who indicated they had good clinical supervision. This finding is congruent to that of Löfmark, Thorkildsen, Råholm, and Natvig's (2012) cross-sectional study of nursing students' satisfaction with clinical supervision from preceptors during clinical rotation practice found that, nursing students' satisfaction with clinical supervision by preceptors and clinical staff, and fulfillment of learning goals during clinical (practice) rotation experience were rated high. This implies that majority of the nursing students rated their satisfaction with clinical supervision, high. The results demonstrate the overall positive benefits of clinical supervision during the clinical rotation period. Interestingly, despite the fact that satisfaction with clinical supervision was ranked quite high, because a quantitative approach was used for this current study, the data was unable to provide rationale for this. However, the researcher speculates that, since the nursing students in University for development studies (UDS) had most of their clinical rotation practice in Tamale Teaching Hospital (TTH), they might have had good guidance, support and supervision in clinical learning environment from the experienced nurses and midwives (Preceptors). Most of the nurses in TTH, who support and supervise the student nurses and student midwives in clinical setting, are highly experienced and competent. This could have been due to the fact that majority of the clinical staff had their first degrees and second

degrees in UDS, Legon and UCC and the like. However, contrary to our findings, a qualitative study results in Malawi showed that majority of the students reported poor clinical supervision in their practice environment (Kaphagawani & Useh, 2018).

In addition, the study also found that clinical supervision has strong influence on nursing and midwifery students' satisfaction with clinical rotation experience. The finding from this study reflects a study by Edward et al (2005) who espoused that effective Clinical Supervision (CS) of undergraduate nursing and midwifery students is recognized as a having crucial role for a successful completion of nursing and midwifery students. It is widely accepted as an essential prerequisite for high satisfaction with clinical rotation experience and quality nursing care.

Level of Nursing and Midwifery Students' Satisfaction with Clinical Learning Environment

The third objective of this study was to assess nursing and midwifery students' satisfaction with their learning environment, as well as determine the role Clinical Learning Environment (CLE) plays in their satisfaction with Clinical Rotation Experience (CRE). Findings about nursing and midwifery students' satisfaction with CLE shows that, majority of nursing and midwifery students (63.5%) were highly satisfied with their CLE, and only few of them (19.6%) were very highly satisfied with the CLE. This finding is analogous to what Papastavrou et al. (2016) found in Cyprus nursing students, indicating that nursing students were highly satisfied with their CLE. This was related to the level of motivation and the nursing care delivery, the supervisory relationship with the mentor and nurse teachers' role in clinical rotation practice.

Corroboratively, Nepal and colleagues (2016) also confirm the results of current this current study, where they established that nursing students' satisfaction with their CLE was high. This study is also congruent to previous studies in Europe by Papastavrou, Lambrinou, Tsangari, Saarikoski, and Leino Kilpi (2010); Saarikoski, Isoaho, Warne, and Leino-Kilpi (2008); and Saarikoski and Leino-Kilpi (2002), despite the different nursing education systems in place. However, the investigator speculated that high levels of satisfaction with CLE could be due to numerous reasons. This may be observed or reported, when students have someone guiding them to achieve their clinical learning needs. Again, when the clinical staff are well trained and ready to assist students, when the students are treated with respect and appreciation as well as being included as part of the health care team. Another ground on which nursing and midwifery students could demonstrate these high levels of satisfaction with CLE has to do with effective levels of clinical nurse-teacher skills and guidance, constant feedback on student's clinical performance, and regular clinical conferences with clinicians and nurse teachers. Similarly, the degree of satisfaction also appeared to be influenced by the unique organizational atmosphere of the ward environment, coupled with the fact that UDS nursing and midwifery students do have most of their clinical rotation practice experience in Tamale Teaching Hospital (TTH), with well-structured clinical environment to support students' learning. Possibly, the duration of clinical rotation practice, the level of entry to nursing program and educational support could also contribute to their high levels of satisfaction with CLE, leading to general satisfaction with clinical rotation experience. However, findings in this study were at variance with the study by Hakim (2014), who establishes that most students (83.3%), had little

satisfaction to the situations of their learning environment. In the same vein, Hakim (2013) also reported low levels of students' satisfaction with their clinical learning environment.

Another important finding from this study is that, Clinical Learning Environment (CLE) is found to have great influence on undergraduate nursing and midwifery students' satisfaction with Clinical Rotation Experience (CRE). This finding is similar to the finding of Perli and Brugnolli (2009); and D'Souza, Karkada, Parahoo, and Venkatesaperumal (2015), who found in their studies that, clinical learning environment is considered an important influential factor for determining nursing students' satisfaction with clinical rotation experience. Conspicuously, many studies demonstrated the importance of CLE in students' satisfaction with clinical rotation experiences (Sharghi et al., 2015), which support findings in this current study. Moreover, Akta and Karabulut (2015) confirm in their study conducted in Giresun University in Turkey that, when nursing and midwifery students graduate without enough clinical rotation practice experience, and with insufficient practical skills, then it may be attributed to poor and inadequate CLE to support students learning. All of the above illustrations go a long way to support findings in this study. In this regards, student dissatisfaction with CLE is one of the main and most important factor hindering clinical learning experience of undergraduate nursing and midwifery student (Glossop, 2001)

Association between Clinical Rotation Experience and Dimensions of Clinical Learning Environment

The current findings from this study generally show that nursing students' satisfaction with their clinical rotation experience was significantly

related to all of the three dimensions of Clinical Learning Environment (CLE): i) pedagogical atmosphere of the ward, ii) Leadership style of ward manager, and iii) premises of nursing in ward environment ($p < 0.001$). However, when our findings were compared to findings by Papastavrou, Dimitriadou, Tsangari,and Andreou (2016), the picture took a similar look. For instance, Papastavrou and colleagues found that, nursing/midwifery students' satisfaction with clinical practice rotation was significantly associated to all of the three dimensions of Clinical Learning Environment, Supervision and Nurse Teacher Scale (CLES + NT dimensions): Pedagogical atmosphere, Ward manager leadership style, and Premises of nursing on the ward ($p < 0.001$).

The interesting part is that, this current study indicates that premises of nursing in ward environment, according to students' perspective, turns to have more influence on nursing and midwifery students' satisfaction with CRE (r_s (224)= .501**, p = .001), than the other two dimensions (Pedagogical atmosphere and leadership style of managers). According to Skaalvik and colleagues (2011), premises of nursing consist of the culture and values of nursing in the ward, information flow related to patient's care, documentation of nursing care plans, recording of nursing procedures, and sufficient meaningful learning situations on the ward. In the nutshell, it is important that clinical nurses and midwives resist the temptations to cut corners to get the work done since nursing and midwifery students may end up copying the wrong things.

However, our finding differs from the findings of Papastavrou et al. (2016) in terms of nursing student's satisfaction with dimensions of CLE. In their study, pedagogical atmosphere rather, is deemed to be imperative

dimension that has most influence on the students' satisfaction (r = .0521, p < .001), than the rest of CLE dimensions.

CHAPTER FIVE

SUMMARY, CONNCLUSIONS AND RECOMMENDATIONS

Introduction

Clinical rotation practice experience is an important characteristic of nursing and midwifery education in general. It is a teaching and learning, which takes place in clinical learning environment, prepares nursing and midwifery students for their professional roles, offer them opportunities to apply the knowledge, skills, values, and attitudes they have acquired in classroom to a patients in bedside. Teaching and learning in clinical learning environment is a complex phenomenon that influences student-learning experiences during clinical rotation practice. This research assessed the roles or influences of clinical learning environment and clinical supervision in satisfaction of nursing and midwifery students with clinical rotation experience. The theoretical background of the research instrument points out that clinical environment consists of several dimensions, which are relevant to be assessed for an appropriate allocation of nursing and midwifery students to respective clinical practice rotation. The subcategories include supervisory relationship (22 items), pedagogical atmosphere on the ward (10 items), leadership style of the ward manager (4 items), premises of nursing on the ward (4 items) and premises of nursing in the ward (6 items).

Under current economic distress, there is a need to re-clarify and re-evaluate the potential roles of all parties involved in students' clinical experiential learning, and allow students to express their general satisfaction or dissatisfaction with clinical rotation experience (placement), in that adequate preparation will be made to meet educational objectives of nursing students.

Nursing students' satisfaction with clinical experiences is one important criterion used for the evaluation of clinical practice in nursing education. The researcher was interested to conduct this current study to determine the relations between nursing students' clinical rotation experience (placement) satisfaction, and various predictors of satisfaction with students' rotation experience.

The purpose of this study was to assess the role of Clinical Learning Environment and Clinical Supervision in undergraduate nursing and midwifery students' satisfaction with clinical rotation (practice) experience in University for Development Studies, Tamale campus. To be able to do this, three (3) research questions were formulated to explore the phenomenon. The research questions are presented below:

1. What is the level of nursing students' satisfaction with clinical rotation experience?
2. What role does clinical supervision play on nursing students' satisfaction with clinical rotation experience?
3. What role does clinical learning environment play on the nursing students' satisfaction with clinical rotation experience?

The researcher also formulated null hypothesis to guide the study, which include:

1. There is no statistically significant association between clinical rotation experience and clinical supervision.
2. There is no statistically significant association between the clinical learning environment and students' level of satisfaction with clinical rotation experience.

This chapter presents the summary of the main findings, and conclusions from the study. The section also presents the implications of the findings in terms of nursing education, nursing research, and nursing practice. It also presents recommendations that are imperative for implementation process in order to ensure improved nursing education in Ghana, as well as outline areas of future research that would serve as point of reference for other studies for both academics and policy makers.

Summary of key Findings

This study adopted a cross-sectional analytic survey to assess factors that influence nursing and midwifery students' satisfaction with their clinical rotation experience. Participants were drawn from nursing and midwifery department in the University for Development Studies, Tamale, and using stratified random sampling technique. Initially, the total sample was 240 (n=100%) (Student nurses [170=70%] and student midwives [71=29%]). However, 224 participants eventually completed the questionnaire, with the return rate of 93.33% (n=224). The data gathering took place between March and April 2018.

The data was measured primarily at continuous level and transformed into the ordinal level, with a few nominal level of measurement. The data was entered into SPSS (IBM) Software Version 23, for descriptive and inferential analysis. Demographic characteristics of participants were analyzed, using descriptive statistics. In the same vein, question one, two and three were addressed using descriptive statistics. Where necessary, some ordinal variables were transformed into dichotomous variable to allow for better communication of findings (See appendix F). Shapiro-Wilk's test of normality at the alpha level

of 0.05 showed that, the data for question one was normally distributed (W's = .986, p = .783). However, question 2 and 3 showed that the data significantly deviated from normality (W's = .976, p < .001, W's = .977, p < .001 respectively) (See appendix E).

Fishers' Exact test of independence was used to test for associations, and Simple Logistic Regression used to predict the effect of significantly associated independent variables on students' satisfactions with clinical rotation experience. Majority of the respondents were females (58.5%). Most of the participants were in their 20s (mean age of 23.8). The Chi-square test showed there was no significant association between some selected demographics (age, level of entry, category of nurses) and dependent variable (CRE satisfaction)

The first research question sought to determine the level of nursing and midwifery students' satisfaction with clinical rotation experience. Overall, the findings showed that majority of the nursing and midwifery students were highly satisfied with their clinical rotation experience, with 65.6%, falling in the category of high level of satisfactions with CRE. Speculatively, this could be because, most of the participants were young and energetic (Mean age of 23.8 years), and dedicated to learning. Similarly, majority of the respondents were females, and for that matter were obedient and focused on clinical rotation practice. The study also found that demographic characteristics such as age, gender, category of student nurses (area of specialization of nursing students) and level of entry in the nursing program did not have any statistically significant association with level of students' satisfaction with CRE.

Concerning the research question two, which also sought to determine the level of students' satisfaction, as well as determine the role of clinical supervision (CS) on students' satisfaction with CRE, the study found that majority of nursing and midwifery students were highly satisfied with their clinical supervision. With sixty percent (60.3%) falling within the category of high-level satisfaction with CS group. Practically, the high levels of students' satisfaction with CS could be because of nursing and midwifery students having their clinical practice rotation in Tamale Teaching Hospital (TTH). In TTH, there may be competent preceptors to facilitate students' learning. This study also reveals that clinical supervision plays very important role in satisfaction with clinical rotation experience. This was found out after a Chi-square test of independence showed very strong associations between clinical rotation experience and clinical supervision. These findings were highly supported by literature.

The third research question, which is the final one, also focused on students' satisfaction with Clinical Learning Environment (CLE) as well as the influence of CLE on the student general level of satisfaction with CRE. The study came out with the finding that nursing and midwifery students were highly satisfied with their CLE, with sixty-three percent and above (63.5%) classified under high-level satisfaction category. Conspicuously, having clinical rotation practice in a highly structured contemporary healthcare facility environment, such as Tamale Teaching Hospital (TTH), which is a referral center for the three Northern Regions, leaves no doubt that contemporary student nurse/midwife will be satisfied with his or her learning environment.

In addition to the above findings, the study also revealed that, CLE is highly associated with students' satisfaction with their Clinical Rotation Experience (CRE) in that; it has many influences on students' satisfaction with CRE. This revelation was duly supported by other research findings. However, some few other findings from literature were at variance with the findings of this study.

In furtherance, the study also found positive correlations (strong association) between various dimensions of CLE (Pedagogical atmosphere, ward manager leadership style, and premises of nursing in the ward) and clinical rotation experience. This finding further establishes that, premises of nursing in the ward environment was found to be the component that has most influence (association) on students' satisfaction with CRE. Hence, there is the need for all players in CRE to highlight the importance of this component (premises of nursing in the ward).

Conclusions

Based on the finding of this study, it can be concluded that the level of satisfaction of undergraduate nursing and midwifery students in University for Development Studies with their clinical rotation experience was high. This could be due to the well-structured clinical learning environment, where nursing and midwifery students were engaged with their clinical rotation experience.

In addition, nursing and midwifery students expressed high levels of satisfaction with their clinical supervision, alluding to the fact that, supervisors were keen on the interest and feeling of students on their clinical rotation practice, coupled with good-interpersonal relationship between students and supervisors. Moreover, clinical supervision was seen to be one of the influential

phenomenon to nursing and midwifery students' satisfaction with their clinical rotation experience. The level of students' satisfaction could have been because of the caliber of preceptors or supervisors in terms of their level of education and experience, and who supervised them during their rotation practice. In order to ensure the continuity of this high level of satisfaction, there is the need to improve preceptorship system by giving them (preceptors) formal training to maintain the professional standards in the clinical sector.

Clinical learning environment, in the context of this study is complex, dynamic, and highly influential in the level of nursing and midwifery students' satisfaction with their clinical rotation experience. However, in spite of the complexity and influential nature of their learning environment, students highlighted high levels of satisfaction with their clinical learning environment. This could be because of the good institutional working relationship UDS established with TTH, which is the major site, where nursing and midwifery students taped their clinical experience.

In light of these study findings, it is clearly established that, there are numerous factors influencing general satisfaction of undergraduate nursing and midwifery students' clinical rotation experience. Such factors according to the findings of this study include supervisory relationship between supervisor and supervisee, students learning environment (pedagogical atmosphere of the ward, leadership style of ward manager, and premises of nursing in the ward) inter alia.

What has become clear in this study is that, if certain factors such as: premises of nursing in ward, pedagogical atmosphere in the ward, ward manager's leadership style among others, are maintained or improved, it could

lead to very high levels of satisfaction with clinical rotation experience of undergraduate nursing and midwifery students. Hence, improving nursing education in Ghana. Interestingly, this study deviated from the initial thinking of the researcher that, student nurses and student midwives have low levels of satisfaction with the clinical rotation experience.

Recommendations

Based on the findings in this study, the following recommendations were made for the consideration of the following institutions:

University for Development Studies/Nursing and Midwifery Depart-ment

1. The current selected sites for clinical rotation practice experience of nursing and midwifery students should be maintained to ensure a sustainable and very high level of satisfaction with clinical rotation experience.
2. The University should collaborate with clinical coordinators in various healthcare facilities, especially the teaching hospitals, where student nurses and students midwives undergo clinical practice rotation, for a timely feedback on students' performance to ensure continuity of high-level of students' satisfactions with clinical supervision and clinical learning environment.

Nurses/Midwives/Nurse Educators

1. While all components of the clinical learning environment are important in determining students' satisfactions with clinical rotation experience, nurses and midwives at the clinical sites should pay more attention to the premises of nursing in the ward. This has to do with the culture and values of nursing in the ward, information flow related to patient's care,

documentation of nursing care plans, recording of nursing procedures, and sufficient meaningful learning situations on the ward (Skaalvik et al., 2011). This is important because this study identified premises of nursing in the ward to be the most influential dimension of the clinical learning environment, which influences satisfaction with clinical rotation experience of undergraduate nursing and midwifery students.

Policy Makers in Nursing Education in Ghana

1. Ministry of health and Nursing and Midwifery Council should formulate policies and strategies to enhance more satisfaction with clinical learning experiences of student nurses and student midwives.
2. Nursing schools and hospitals should pay more attention to the supervision of student nurses on clinical rotation, since this study has demonstrated that clinical supervision exerts great influence on nursing and midwifery students' satisfaction with clinical rotation experience.

Suggestions for Further Research

This study assessed factors influencing undergraduate student nurses and student midwives' satisfaction with clinical rotation experience in one university. It employed a relatively smaller sample size with few clinical sites. This affects the generalizability of the findings. Further research should therefore employ larger sample sizes with varied clinical areas. In addition, the study participants should be extended to include clinicians and the lecturers to explore their views on students' satisfaction with clinical rotation experience to confirm the findings of this study.

Since the current study used a quantitative approach to examine the factors affecting the clinical rotation experience, further studies can focus on exploring the experiences of student nurses on clinical rotation, using a qualitative approach.

REFERENCES

Abedini, S., Aghamolaei, T., Jomehzadeh, A., & Kamjoo, A. (2009). Clinical education problems: the viewpoints of nursing and midwifery students in Hormozgan University of Medical Sciences. *Bimonthly Journal of Hormozgan University of Medical Sciences*, *12*(4), 249–253.

Abouelfettoh, A., & Mumtin, S. (2015). Nursing Students' Satisfaction with Their Clinical Placement. *Journal of Scientific Research and Reports*, *4*(6), 490–500.

Akintunde, O. (2013). Manifestation of Contemporary Leadership Issues and its Relevance to Diverse Leadership Methods and Contingency Models: A Review of Literature. *Global Journal of Human Social Science Interdisciplinary; 13*(2), 1–5.

Akta, Y. Y., & Karabulut, N. (2015). Nurse Education Today A Survey on Turkish nursing students ' perception of clinical learning environment and its association with academic motivation and clinical decision making. *Nurse Education Today Journal Science Direct*.

Al-kandari, F., Vidal, V. L., & Thomas, D. (2009). Assessing clinical learning outcomes : A descriptive study of nursing students in Kuwait. *Nursing and Health Sciences*, *11*(February, 2009), 252–262.

Al-Sebaee, H. A. Al, Abdel Aziz, E. M., & Mohamed, N. T. (2017). a1. Relationship between Nursing Students' Clinical Placement Satisfactio n, Academic Self-Efficacy and Achievement. *IOSR Journal of Nursing and Health Science*, *06*(02), 101–112.

Ali, M. A. A. (2011). *(A-3) Undergraduate Nursing Students ' Perceptions of the Psychosocial Characteristics of the Clinical Learning Environment during Their Clinical Placements By Faculty of Nursing*. *Faculty of Nursing University of Manitoba Winnipeg*. University of Manitoba in.

Ali, P. A., & Panther, W. (2008). Professional development and the role of mentorship. *Nursing Standard*, *22*(42), 35–39.

Alspach, G. (2006). Extending the Synergy Model to Preceptorship: A Preliminary Proposal Optimal. *Journal for High Acuity, Progressive, and Critical Care Nursing*, *26*(2), 10–13. Retrieved from http://ccn.aa cnjournals.org/ by AACN

AmericanNursesAssociation. (2005). AACN Standard for Establishing and Sustaining Healthy Work Environments: A Journey to excellence. *American Association of Critical-Care Nurses. Aliso Viejo, Calif. Cute*, *14*(800), 187–197.

An Bord Altranais [ABA]. (2003). *Guidelines on the Key Points that Mey be Considered when Developing a Quality Clinical Learning Environment*. (D. 2. Fitzwilliam Sq., Ed.) (1st Editio). Irish Lenus: An Bord Altranais. Retrieved from http://hdl.handle.net/10147/45057

Andrews, G. J., Brodie, D. A., Andrews, J. P., Wong, J., & Thomas, B. G. (2005). Place(ment) matters: Students' clinical experiences and their preferences for first employers. *International Nursing Review*, *52*(2), 142–153.

Ankoma-Sey, V. R., & Maina, B. (2016). The role of effective supervision on academic performance of senior high schools in Ghana. *Journal of Arts and Humanities*, *5*(04), 73–83.

Asirifi, M. A., Mill, J. E., Myrick, F. A., & Richardson, G. (2013). Preceptorship in the Ghanaian context: "Coaching for a winning team." *Journal of Nursing Education and Practice*, *3*(12), 168–176.

Asirifi, M., Ogilvie, L., Barton, S., Aniteye, P., Stobart, K., Bilash, O., Kwashie, A. (2017). Assessing challenges of clinical education in a baccalaureate nursing program in Ghana. *Journal of Nursing Education and Practice*, *7*(10), 109.

Atack, L., Comacu, M., Kenny, R., LaBelle, N., & Miller, D. (2000). Student and staff relationships in a clinical practice model: impact on learning. *Journal of Nurse Educators*, *39*(9), 387–392.

Atakro, C. A. (2017). Experiences of Student Nurses and Midwives at Selected Hospitals in the Volta Region of Ghana. *Journal of Education, Society and Behavioural Science*, *21*(4), 1–9.

Atakro, C. A., & Gross, J. (2016). Preceptorship versus Clinical Teaching Partnership: Literature Review and Recommendations for Implementation in Ghana. *Advances in Nursing*, *2016*, 1–5.

Awuah-Peasah, D., Sarfo, L. A., & Asamoah, F. (2013). The attitudes of student nurses toward clinical work. *International Journal of Nursing and Midwifery*, *5*(2), 22–27.

Ayeson, E. B. (2017). *Evaluation of Clinical Training of Student Nurses University of Cape Coast. Unpublished thesis.UCC Library Repository.*

Baltimore, J. (2004). The Hospital Clinical Preceptor: Essential Preparation for Success. *The Journal of Continuing Education in Nursing*, *35*(3), 133–140.

Baylis, D. (2014). Why clinical supervision matters. *Practice Nurse 44(6)*, *44*(6), 29–30.

Bell, S. A., Rominski, S., Bam, V., Donkor, E., & Lori, J. (2013). Analysis of nursing education in Ghana: Priorities for scaling-up the nursing workforce. *Nursing and Health Sciences*, *15*(2), 244–249.

Bengtsson, M., & Carlson, E. (2015). Knowledge and skills needed to improve as preceptor: Development of a continuous professional development course - a qualitative study part I. *BMC Nursing*, *14*(1), 1–7.

Bernard, & Goodyear. (2014). Introduction to clinical supervision, 1–17.

Bhattacherjee, A. (2012). *Social Science Research: Principles, Methods, and Practices*. (P. H. C. American Studies Commons, Education Commons, Ed.) (2nd ed). Florida, USA: Social Science Research. Retrieved from http://scholarcommons.usf.edu/oa_textbooks/3

Bifarin, O., & Stonehouse, D. (2017). Clinical supervision: an important part of every nurse's practice. *British Journal of Nursing*, *26*(6), 331–335.

Bogo, M., & McKnight, K. (2008). Guide for Monitoring Scale-up of Health Practices and Interventions. *Medidical Teaher*, *24*(2), 49–64.

Bondas, T. (2006). Paths to nursing leadership. *Journal of Nursing Management*, *14*(5), 332–339.

Boor, K., Scheele, F., Van Der Vleuten, C. P. M., Scherpbier, A. J. J. A., Teunissen, P. W., & Sijtsma, K. (2007). Psychometric properties of an instrument to measure the clinical learning environment. *Medical Education*, *41*(1), 92–99.

Bowling, A., & Ebrahim, S. (2005). *Hand Book of Research Methods: Investigations, Measurement and Analysis*. (1 st ed.). Maidenhead:

Open University Press.

Brown, B., O'Mara, L., Hunsberger, M., Love, B., Black, M., Carpio, B., … Noesgaard, C. (2003). Professional confidence in baccalaureate nursing students. *Nurse Education in Practice*, *3*(3), 163–170.

Brown, L., Herd, K., Humphries, G., & Paton, M. (2005). The role of the lecturer in practice placements: What do students think? *Nurse Education in Practice*, *5*(2), 84–90.

Brunero, S., & Lamont, S. (2012). The process, logistics and challenges of implementing clinical supervision in a generalist tertiary referral hospital. *Scandinavian Journal of Caring Sciences*, *26*(1), 186–193.

Budgen, C., & Gamroth, L. (2008). An overview of practice education models. *Nurse Education Today*, *28*(3), 273–283.

Bvumbwe, T. (2016). Enhancing nursing education via academic-clinical partnership: An integrative review. *International Journal of Nursing Sciences*, *3*(3), 314–322.

Chan, D. (2001). Development of an innovative tool to assess hospital learning environments. *Nurse Education Today*, *21*(8), 624–631.

Chan, D. S. K. (2002). Associations between student learning outcomes from their clinical placement and their perceptions of the social climate of the clinical learning environment. *International Journal of Nursing Studies*, *39*(5), 517–524.

Chan, D. S. K. (2003). Validation of the Clinical Learning Environment Inventory. *Western Journal of Nursing Research*, *25*(5), 519–532.

Changiz, T., Malekpour, A., & Zargham-Boroujeni, A. (2012). Stres- sors in clinical nursing education in Iran: a systematic review. *Iranian Journal*

of Nursing and Midwifery Research, *17*(6), 395–399.

Charleston, R., & Happell, B. (2005). Coping with uncertainty within the preceptorship experience: The perceptions of nursing students. *Journal of Psychiatric and Mental Health Nursing*, *12*(3), 303–309.

Chaun, O. L., & Barnett, T. (2012). Student, tutor and staff nurse perceptions of the clinical learning environment; Nurse Education in Practice. *Journal of Nursing Education and Practice*, *12*(4), 192–197.

Chesser-Smyth, P. A. (2005). The lived experiences of general student nurses on their first clinical placement: A phenomenological study. *Nurse Education in Practice*, *5*(6), 320–327.

Chow, F. L. W., & Suen, L. K. P. (2001). Clinical staff as mentors in pre-registration undergraduate nursing education: Students' perceptions of the mentors' roles and responsibilities. *Nurse Education Today*, *21*(5), 350–358.

Christensen, M. (2009). Advancing practice in critical care: a model of knowledge integration. *Nurs Critical Care*, *14*(2), 86–94.

Chuan, O. L., & Barnett, T. (2012). Student, tutor and staff nurse perceptions of the clinical learning environment. *Nurse Education in Practice*, *12*(4), 192–197.

Clare, J., White, J., Edwards, H., & Van Loon, A. (2002). Learning Outcomes and curriculum development in major disciplines: Nursing. *Australian Universities Teaching Committee*.

Clough, A. (2000). Clinical supervision in primary care. *Quality*, *13*(June), 1–4.

Coudret, N. C. S. A., Edd, A. N. N., Fuchs, J. O. Y. A. P. L., Concep, N. R., Practicum, N., & Practicum, T. (1994). Role Socialization of Graduating Student Nurses : Impact of a Nursing Practicum on Professional. *Journal of Professional Nursing*, *10*(6), 342–349.

Courtney-Pratt, H., Fitzgerald, M., Ford, K., Marsden, K., & Marlow, A. (2011). Quality clinical placements for undergraduate nursing students: A cross-sectional survey of undergraduates and supervising nurses. *Journal of Advanced Nursing*, *68*(6), 1380–1390.

Cowan, D. T., Norman, I., & Coopamah, V. P. (2007). Competence in nursing practice: A controversial concept - A focused review of literature. *Accident and Emergency Nursing*, *15*(1), 20–26.

Croxon, L., & Maginnis, C. (2009). Evaluation of clinical teaching models for nursing practice. *Nurse Education in Practice*, *9*(4), 236–243.

Cruz, S. S. S. M. S. (2011). Clinical supervision in nursing: Effective pathway to quality. *Procedia - Social and Behavioral Sciences*, *29*(Iceepsy), 286–291.

Cuellar-Rodriguez, J., Avery, R. K., Lard, M., Budev, M., Gordon, S. M., Shrestha, N. K., … Mawhorter, S. D. (2009). Histoplasmosis in Solid Organ Transplant. Recipients: 10 Years of Experience at a Large Trans plant Center inan Endemic Area. *Clinical Infectious Diseases*, *49*(5), 7 10–716.

Curley, M. A. (1998). Patient-nurse synergy: optimizing patients'outcomes. *Am Journal of Critical Care*, *7*(1), 64–72.

D'Souza, M. S., Karkada, S. N., Parahoo, K., & Venkatesaperumal, R. (2015). Perception of and satisfaction with the clinical learning environment among nursing students. *Nurse Education Today*, *35*(6), 833–840.

Davey, B., Desousa, C., Robinson, S., & Murrells, T. (2006). The policy–practice divide; Who has clinical supervision in nursing? *Journal of Research in Nursing*, *11*(13), 237–248.

Del Prato, Bankert, E., Grust, P., & Joseph, J. (2011). Transforming nursing education: a review of stressors and strategies that support students' professional socialization. *Advances in Medical Education and Practice*, (May 2011), 109.

Doerksen, K. (2010). What are the professional development and mentorship needs of advanced practice nurses? *Journal of Professional Nursing*, *26*(3), 141–151.

Donkor, N. T., & Andrews, L. D. (2011). 21st century nursing practice in Ghana: Challenges and opportunities. *International Nursing Review*, *58*(2), 218–224.

Dunn, S., Ehrich, L., Mylonas, A., & Hansford, B. (2000). Students' perceptions of field experience in professional development: A comparative study. *Journal of Nursing Education*, *39*(9), 393–400.

Dunn, S. V, & Burnett, P. (1995). The development of a clinical learning environment scale. *Journal of Advanced Nursing 1166-1173*.

Edgecombe, K., & Bowden, M. (2009). The ongoing search for best practice in clinical teaching and learning : A model of nursing students ' evolution to proficient novice registered nurses. *Nurse Education in Practice*, *9*(2), 91–101.

Edwards, D., Burnard, P., Hannigan, B., Cooper, L., Adams, J., Juggessur, T., Coyle, D. (2006). Clinical supervision and burnout: The influence of clinical supervision for community mental health nurses. *Journal of Cli nical Nursing*, *15*(8), 1007–1015.

Edwards, D., Cooper, L., Burnard, P., Hanningan, B., Adams, J., Fothergill, A., & Coyle, D. (2005). Factors influencing the effectiveness of clinical supervision. *Journal of Psychiatric and Mental Health Nursing*, *12*(4), 405–414.

Edwards, H., Smith, S., Courtney, M., Finlayson, K., & Chapman, H. (2004). The impact of clinical placement location on nursing students' competence and preparedness for practice. *Nurse Education Today*, *24*(4), 248–255.

Ehrenberg, A. C., & Häggblom, M. (2007). Problem-based learning in clinical nursing education: Integrating theory and practice. *Nurse Education in Practice*, *7*(2), 67–74.

Eliasson, A. C., Ullenhag, A., Wahlström, U., & Krumlinde-Sundholm, L. (2017). Mini-MACS: development of the Manual Ability Classification System for children younger than 4 years of age with signs of cerebral palsy. *Developmental Medicine and Child Neurology*, *59*(1), 72–78.

Elmore, D. H. (2010). *Empirical testing of the Neuman Systems Nursing Education Model: Exploring the created environment of registered nursing students in Nevada's colleges and universities*.

Eraut, M. (2000). Non-formal learning and tacit knowledge in professional work. *British Journal Education of Psychology*, *70 (1)*,113–136.

Esmaeili, M., Cheraghi, M. A., Salsali, M., & Ghiyasvandian, S. (2014). Nursing students' expectations regarding effective clinical education: A qualitative study. *International Journal of Nursing Practice*, *20*(5), 460–467.

Farnan, J. M., Petty, L. A., Georgitis, E., Martin, S., Chiu, E., Prochaska, M., & Arora, V. M. (2012). A systematic review: The effect of clinical supervision on patient and residency education outcomes. *Academic Medicine*, *87*(4), 428–442.

Franklin, N. (2013). Clinical supervision in undergraduate nursing students : A review of the literature. *E-Journal of Business Education & Scholarship of Teaching*, *7*(1), 34–42.

Gabb, R., & Keating, S. (2005). Work-based learning curricula in nursing Postcompulsory Education Centre. Victoria University. *Journal of Advanced Nursing*, *32*(6), 1542–1549.

Gerrish, K., & Lathlean, J. (2015). *The Research Process in Nursing*. (J. W. and Sons, Ed.) (7th ed). West Sussex: Wiley Blackwell. Retrieved from www.wiley.com/wiley-blackwel

Ghana Registered Nurses' Association. (2011). *Closing the gap: Increasing access and equity.*Retrieved from http://www.ghananu rses.org/ind. pdf.Gidman, 20th june 2017.

Gilfedder, M., Barron, D., & Docherty, E. (2010). Development the role ofadvanced Practiciner in Mental Health, *20*(30), 35–40.

Glossop, C. (2001). Student nurse attrition from pre-registration courses: Investigating methodological issues. *Nurse Education Today*, *21*(3), 170–180.

Goff, A. M. (2009). *Stressors, Academic Performance, and Learned Resourcefulness in Baccalaureate Nursing Students*. University of North Carolina at Greensboro.

Gopee, N. (2011). *Effective mentoring. Mentoring and supervision in healthca re*. *SAGE publications* (2 nd ed.). London, UK: SAGE publications. Re trieved fromhttp://www.comminit. com/usaid/ conten t/guide-fostering-change-scale-effective-health-services

Governance, C., Disclosur, S., Management, T. T., Experience, P., & Partnership, F. T. (2018). Policy : C16 Clinical Supervision for Nurses. *West London Mental Health Trust*, *140211*(October 2014).

Graham, M. M., Lindo, J., Bryan, V. D., & Weaver, S. (2016). Factors Associated With Stress Among Second Year Student Nurses During Clinical Training in Jamaica. *Journal of Professional Nursing*, *32*(5), 383–391.

Gray, M. A., & Smith, L. N. (2000). The qualities of an effective mentor from the student nurse's perspective: Findings from a longitudinal qualitative study. *Journal of Advanced Nursing*, *32*(6), 1542–1549.

Häggman-Laitila, A., Elina, E., Riitta, M., Kirsi, S., & Leena, R. (2007). Nursing students in clinical practice - Developing a model for clinical supervision. *Nurse Education in Practice*, *7*(6), 381–391.

Hakim, A. (2013). Nursing students ' satisfaction. *International Journal of Nursing*, *2*(2), 1–7.

Hakim, A. (2014). Nursing students' satisfaction about their field of study. *Journal of Advances in Medical Education and Professionalism*, *2*(2), 82–87.

Hanifi, N., Parvizy, S., & Joolaee, S. (2012). The Miracle of Communication as a Global Issue in Clinical Learning Motivation of Nursing Students. *Procedia - Social and Behavioral Sciences*, *47*, 1775–1779.

Happell, B. (2009). Influencing undergraduate nursing students' attitudes toward mental health nursing: Acknowledging the role of theory. *Issues in Mental Health Nursing*, *30*(1), 39–46.

Hathorn, D. C. (2006). *The lived experience of nurses working with student nurses in the acute care clinical environment*. *LSU Doctoral Dissertati ons*.

Health Workforce Australia. (2010). Clinical Supervisor Support Program - Discussion Paper. *An Australian Government Institute*, *1*, 5–20.

Health Workforce Australia. (2011). Clinical Supervision Support Program Directions Paper. *Health Workforce Australia*, *2*(April), 1–64.

Helgesen, A. K., Gregersen, A. G., & Roos, A. K. (2016). Nurse students' experiences with clinical placement in outpatient unit - a qualitative study. *BioMed Central Nursing*, *15*(1), 49.

Helminen, K., Tossavainen, K., & Turunen, H. (2014). Assessing clinical practice of student nurses: Views of teachers, mentors and students. *Nurse Education Today*, *34*(8), 1161–1166.

Henderson, A., Creedy, D., Boorman, R., Cooke, M., & Walker, R. (2010). Development and psychometric testing of the Clinical Learning Organisational Culture Survey (CLOCS). *Nurse Education Today*, *30*(7), 598–602.

Henderson, A., Twentyman, M., & Eaton, E. (2010). Enhancing support for nursing students in the clinical. *Nursing Times*, *102*(14), 35.

Henderson, A., Twentyman, M., Heel, A., & Lloyd, B. (2006). Students' perception of the psycho-social clinical learning environment: An evaluation of placement models. *Nurse Education Today*, *26*(7), 564–571.

Herna, P., Mcdowell, T., & College, C. (2016). Intersectionality , Power , and Relational Safety in Context : Key Concepts in Clinical Supervision Intersectionality , Power , and Relational Safety in Context : *American Psychological Association.33-34* (February 2010).

Hosoda, Y. (2006). Development and testing of a Clinical Learning Environme nt Diagnostic Inventory for baccalaureate nursing students. *Journal of Advanced Nursing*, *56*(5), 480–490.

Hughes, S. J. (2004). The mentoring role of the personal tutor in the "Fitness for practice" curriculum: An all Wales approach. *Nurse Education in P ractice*, *4*(4),271–278.

Hutchings, A., & Sanders, L. (2001). Developing Learning Path Ways for Student Nurses. *Nursing Standards*, *15*(40), 38–41.

Hyrkäs, K., & Lehti, K. (2003). Continuous quality improvement through team supervision supported by continuous self-monitoring of work and systematic patient feedback. *Journal of Nursing Management*, *11*(3), 177–188.

Ingram, R. (1991). Why does nursing need theory? *Journal of Advanced Nursing*, *16*(3), 350–353.

Ion, R., Smith, K., & Dickens, G. (2017). Nursing and midwifery students' encounters with poor clinical practice: a systematic review. *Nurse Education in Practice*.

Ismail, A., & Abiddin, N. Z. (2009). The importance of graduate students' needs on supervisory contribution in a Malaysian public University. *Social Sciences*, *4*(4), 355–365.

Israel, G. D. (2009). *Determining Sample Size*. *PEOD6*. Florida. Retrieved from http://www.webcitation.org/66kKEIC0b

Ives, G., & Rowley, G. (2005). Supervisor selection or allocation and continuity of supervision: Ph.D. students' progress and outcomes. *Studies in Higher Education*, *30*(5), 535–555.

Jackson, D., & Mannix, J. (2001). Clinical nurses as teachers: Insights from students of nursing in their first semester of study. *Journal of Clinical Nursing*, *10*(2), 270–277.

James, A., & Chapman, Y. (2009). Preceptors and patients – the power of two : Nursing student experiences on their first acute clinical placement. *Con temporary Nurse*, *34*(1), 34–47.

Jamshidi, N., Molazem, Z., Sharif, F., Torabizadeh, C., & Najafi Kalyani, M. (2016). The Challenges of Nursing Students in the Clinical Learning Environment: A Qualitative Study. *The Scientific World Journal*, *2016*, 1–7.

Jeffreys, M. R. (2007). Tracking students through program entry, progression, graduation, and licensure: Assessing undergraduate nursing student retention and success. *Nurse Education Today*, *27*(5), 406–419.

Johansson, U., Ahlner-elmqvist, M., Leksell, J., Isoaho, H., & Saarikoski, M. (2010). Clinical learning environment, supervision and nurse teacher evaluation scale: psychometric evaluation of the Swedish version. *Journal of Advanced Nursing*, *66*(9), 2085–2093.

Joolaee, S., Jafarian Amiri, S. R., Farahani, M. A., & varaei, S. (2015). Iranian nursing students' preparedness for clinical training: A qualitative study. *Nurse Education Today*, *35*(10), e13–e17.

Jooste, K., Jasper, M., & Town, C. (2012). A South African perspective : current position and challenges in health care service management and education in nursing. *Journal of Nursing Management*, 56–64.

Kaphagawani, N. C., & Useh, U. (2018). Clinical Supervision and Support : Exploring Pre-registration Nursing Students ' Clinical Practice in Malawi. *Annals of Global Health.*, *84*(1), 100–109.

Kerfoot, K. (2002). The synergy model in practice. *Critical Care Nurse*, *22*(2), 1–3.

Kevin, J. (2006). Problems in the supervision and assessment of student nurses: can clinical placement be improved? *Contemporary Nurse : A Journal for the Australian Nursing Profession*, *22*(1), 36–45.

Killam, L. A., & Heerschap, C. (2013). Challenges to student learning in the clinical setting : A qualitative descriptive study. *Journal of Nurse Education Today*, *33*(6), 684–691.

Kilminster, S. M., & Jolly, B. C. (2000). Effective supervision in clinical practice settings: A literature review. *Journal of MedicalEducation*, *34*(10), 827–840. https://doi.org/10.1046/j.1365-2923.20 00.00758.x

Kleiser, H., & Cox, D. L. (2008). The integration of clinical and managerial supervision: A critical literature review. *British Journal of Occupa-tional Therapy*, *71*(1), 2–12.

Lambert, V., & Glacken, M. (2005). Clinical education facilitators. *Journal of Clinical Nursing*, *14*, 664–673.

Lawal, J., Weaver, S., Bryan, V., & Lindo, J. L. M. (2016). (A-11) Factors that influence the clinical learning experience of nursing students at a Caribbean school of nursing. *Journal of Nursing Education and Practice*, *6*(4), 32–37.

Leveck, M. L., & Jones, C. B. (1996). The Nursing Practice Environment, Staff Retention, and Quality of Care. *Research in Nursing and Health*, *19*(4), 331–343.

Levett-Jones, T., Fahy, K., Parsons, K., & Mitchell, A. (2006). Enhancing nursing students' clinical placement experiences: a quality improvement project. *Contemporary Nurse : A Journal for the Australian Nursing Profession*, *23*(1), 58–71.

Levett-Jones, T., & Lathlean, J. (2008). Belongingness: A prerequisite for nursing students' clinical learning. *Nurse Education in Practice*, *8*(2), 103–111.

Lian, H., Ferris, D. L., & Brown, D. J. (2012). Does power distance exacerbate or mitigate the effects of abusive supervision? It depends on the outcome. *Journal of Applied Psychology*, *97*(1), 107–123.

Lin, L., & Cranton, P. (2005). From scholarship student to responsible scholar: A transformative process. *Teaching in Higher Education*, *10*(4), 447–459.

Lindahl, B., Dagborn, K., & Nilsson, M. (2009). A student-centered clinical educational unit - Description of a reflective learning model. *Nurse Education in Practice*, *9*(1), 5–12.

Lindgren, B., Brulin, C., Holmlund, K., & Athlin, E. (2005). Nursing students' perception of group supervision during clinical training. *Journal of Cli*

nical Nursing, *14*(7), 822–829.

Lizzio, A., Stokes, L., & Wilson, K. (2005). Approaches to learning in profe-ssional supervision: Supervisee perceptions of processes and outcome. *Studies in Continuing Education*, *27*(3), 239–256.

Lobiondo-wood, G., & Haber, J. (2010). *Study Guide for Nursing Research : Methods and Critical Appraisal for Evidence-Based Practice* (8th ed.). St. Louis: Mosby Elsevier.

Lockwood-Rayermann, S. (2003). Preceptor leadership style and the nursing practicum. *Journal of Professional Nursing*, *19*(1), 32–37.

Löfmark, A., Thorkildsen, K., Råholm, M.-B., & Natvig, G. K. (2012). Nursing students ' satisfaction with supervision from preceptors and teachers during clinical practice Nurse Education in Practice Nursing students ' satisfaction with supervision from preceptors and teachers during clinical practice. *Nurse Education in Practice*, *12*(January), 164–169.

Lofmark, A., & Wikblad, K. (2001). Facilitating and obstructing factors for development of learning in clinical practice: a student perspective. *Journal of Advanced Nursing*, *34*(1), 43–50.

Lubbers, J., & Rossman, C. (2017). Satisfaction and self-confidence with nursing clinical simulation: Novice learners, medium-fidelity, and community settings. *Nurse Education Today*, *48*, 140–144.

Lynch, L., Hancox, K., Happell, B., & Parker, J. (2008). *Clinical supervision f or nurses*. Chichester, UK: Wiley-Blackwell.https:

Lynch, L., & Happell, B. (2008a). Implementation of clinical supervision in action: Part 2: Implementation and beyond. *International Journal of Mental Health Nursing*, *17*(1), 65–72.

Määttä, K. (2015). A good supervisor–Ten facts of caring supervision. *International Education Studies*, *8*(9), 185–193.

Mabuda, B. T., Potgieter, E., & Alberts, U. U. (2008). Student nurses ' experiences during clinical practice in the Limpopo Province. *Department of Health Studies UNISA*, *1*(31), 19–27.

Macneen, C. L., & McCabe, S. (2006). *Understanding Nursing Research. Reading and using research in evidence-based practice* (2nd ed). London: Lippincott Williams.

Magnuson, S., Wilcoxon, S. A., & Norem, K. (2000). a Profile of Lousy Supervision, Councelor Education and Supervision. *39*(March).

Mantzorou, M. (2004). Preceptorship in nursing education: is it a viable alternative method for clinical teaching. *Icus Nursing Web Journal. 19(2004)*. 1-9

Mantzoukas, S., & Jasper, M. A. (2004). Reflective practice and daily ward reality: A covert power game. *Journal of Clinical Nursing*, *13*(8), 925–933.

Martin, P., Copley, J., & Tyack, Z. (2014). Twelve tips for effective clinical supervision based on a narrative literature review and expert opinion. *Medical Teacher*, *36*(3), 201–207.

Martin, P., Kumar, S., Lizarondo, L., & Tyack, Z. (2016). Factors influencing the perceived quality of clinical supervision of occupational therapists in a large Australian state. *Australian Occupational Therapy Journal*, *6 3*(5), 338–346.

McCarthy, B., & Murphy, S. (2008). Assessing undergraduate nursing students in clinical practice: Do preceptors use assessment strategies?

Nurse Education Today, *28*(3), 301–313.

Midgley, K. (2006). Pre-registration student nurses perception of the hospital-learning environment during clinical placements. *Nurse Education Tod ay*, *26*(4), 338–345.

Mikkonen, I. (2005). *Clinical Learning as Experienced by Nursing Students*.

Milne, D. (2007). An empirical definition of clinical supervision. *British Journalof Clinical Psychology*, *46*(4), 437–447.

Mohebbi-Noubandegani, Z., Rambod, M., Hashemi, F., Mohammadi, H. R., Dolatabad, N., & Setoudeh, G. (2012). View point of the nursing students on challenges in clinical training, Shiraz, Iran. *Bimonthly Journal of Hormozgan University of Medical Sciences*, *16*(5), 415-421.

Morris, W. F., & Doak, D. F. (2002). *Quantitative conservation biology: Theory and Practice of Population Viability Analysis* (1st ed.). Uni-versity of Cali-fornia, Santa Cruz Sinauer: Sunderland, Massach-usetts U.S.A.

Msiska, G., Smith, P., & Fawcett, T. (2014a). Exposing emotional labour experienced by nursing students during their clinical learning experience: A Malawian perspective. *International Journal of Africa Nursing Sciences*, 1, 43–50.

Msiska, G., Smith, P., & Fawcett, T. (2014b). The “lifeworld” of Malawian undergraduate student nurses: The challenge of learning in resource poor clinical settings. *International Journal of Africa Nursing Sciences*, *1*, 35–42.

Myrick, F. (2015). Preceptorship and critical thinking in nursing education. *Journal of Nursing Education, 41*(4), 64–154.

Myrick, F., Yonge, O., & Billay, D. (2010). Preceptorship and practical wisdom: A process of engaging in authentic nursing practice. *Nurse Education in Practice*, *10*(2), 82–87.

National League for Nursing (2005). Transforming nursing education Nursing Education Perspectives, 26(3), 195197. Retrieved December 30, 2009, from,http://www.nln.org/aboutnln/Positionstatements/index.htm

Nash, R., Lemcke, P., & Sacre, S. (2009). Enhancing transition: An enhanced model of clinical placement for final year nursing students. *Nurse Education Today*, *29*(1), 48–56.

Nayeri, N. D., Nazari, A. A., Salsali, M., Ahmadi, F., & Hajbaghery, M. A. (2006). Iranian staff nurses' views of their productivity and management factors improving and impeding it: A qualitative study. *Nursing and Health Sciences*, *8*(1), 51–56.

Nepal, B., Taketomi, K., Ito, Y. M., Kohanawa, M., Kawabata, H., Tanaka, M., & Otaki, J. (2016). Nurse Education Today Nepalese undergra du ate nursing students ' perceptions of the clinical learning environment ,supervision and nurse teachers : A questionnaire survey. *Nurse Educat ion Today Journal*, *39*, 181–188.

Neuman, B., Fawcett, J., Cape, A., London, T. D., Milan, M., Paris, M., … Tokyo, T. (2009). *the Neuman Systems Model* (3rd ed). New York: NY: Springer Publishing Co.

Neville, S., & French, S. (1991). Clinical Education: Students' and Clinical Tutors' Views. *Physiotherapy (United Kingdom)*, *77*(5), 351–354.

Newton, A., & Smith, L. N. (1998). Practice placement supervision: The role of the personal tutor. *Nurse Education Today*, *18*(6), 496–504.

Newton, J. M., & McKenna, L. (2007). The transitional journey through the graduate year: A focus group study. *International Journal of Nursing Studies*, *44*(7), 1231–1237.7

Nursing & Midwifery Council, Ghana. (2015). *The Code of Professional Standar ds of Practice and Behaviour for Nurses and Midwives*. http:// tinyurl.com/ g ozg mtm (accessed 8 March 2017.

Nursing Education Stakeholders (NES) Group. (2012). A Proposed Model for Clinical Nursing Education and Training. Nursing Education Stakeholders (NES) Group. *Trends in Nursing*, *1*(1), 1–4.

O'Flanagan, S., & Dajee, M. (2002). Students' views on clinical placements. *Nursing Times*, *98*(6), 32–33. Retrieved from https://ezproxy.bibl .ula v al.ca/login?url=http: //search.proquest.com/docview/1947355 42?a cco untid=12008

O'Mara, L., McDonald, J., Gillespie, M., Brown, H., & Miles, L. (2014). Challenging clinical learning environments: Experiences of undergradu ate nursing students. *Nurse Education in Practice*, *14*(2), 208–213.

Ohaja, M. (2010). (A-9) The Experience Of Post-Registration Student Midwives. *Journal of Teaching and Learning in Hiigher Education*, *2*(1), 1–14. Retrieved from http://ojs.aishe.org/index.php/aishe-j/art icle /view/14%0AAll

Opare, M., & Mill, J. E. (2000). The evolution of nursing education in a postindependence context-Ghana from 1957 to 1970. *Western Journal of Nursing Research*, *22*(8), 936–944.

Papastavrou, E., Dimitriadou, M., Tsangari, H., & Andreou, C. (2016). Nursing students' satisfaction of the clinical learning environment: a research st

udy. *BMC Nursing*, *15*(1), 44.

Papastavrou, E., Lambrinou, E., Tsangari, H., Saarikoski, M., & Leino-Kilpi, H. (2010). Student nurses experience of learning in the clinical environment. *Nurse Education in Practice*, *10*(3), 176–182.

Papathanasiou, I. V., Tsaras, K., & Sarafis, P. (2014). Views and perceptions of nursing students on their clinical learning environment: Teaching and learning. *Nurse Education Today*, *34*(1), 57–60.

Papp, I., Markkanen, M., & von Bonsdorff, M. (2003). Clinical environment as a learning environment: Student nurses' perceptions concerning clinical learning experiences. *Nurse Education Today*, *23*(4), 262–268.

Pearcey, P. A., & Elliott, B. E. (2004). Student impressions of clinical nursing. *Nurse Education Today*, *24*(5), 382–387.

Perli, S., & Brugnolli, A. (2009). Italian nursing students' perception of their clinical learning environment as measured with the CLEI tool. *Nurse Education Today*, *29*(8), 886–890.

Philips, E. M., & Pugh, D. S. (2003). *How to get a PhD. A handbook for students and their supervisorheir supervisors*. (5th, Ed.) (McGraw. Hi). Maidenhead: Open University Press.

Pitt, V., Powis, D., Levett-Jones, T., & Hunter, S. (2012). (A.1) Factors influencing nursing students' academic and clinical performance and attrition: An integrative literature review. *Nurse Education Today*, *32*(8), 903–913.

Polit, D. F., & Beck, T. C. (2010). *Essentials of nursing research: Appraising evidence for nursing practice* (7 th ed). Philadelphia: Lippincott: Williams & Wilkins.Retrieved from web:www.worldpneumoniaday.

org

Quine, F. S. (2000). *Principles and Practice of Nurse Education, fourth* (4th ed.). Cheltenham.: Stanley Thornes Ltd.

Rajeswaran, L. (2016). Clinical Experiences of Nursing Students at a Selected Institute of Health Sciences in Botswana Study design. *Health Science Journal*, *10*(6), 1–6.

Ramos-Sánchez, L., Esnil, E., Goodwin, A., Riggs, S., Wright, L. K., Touster, L. O., Rodolfa, E. (2002). Negative Supervisory Events: Effects on Supervision Satisfaction and Supervisory Alliance. *Professional Psychology: Research and Practice*, *33*(2), 197–202.

Reghuram, R., & Mathias, J. (2014). A study on occurrence of social anxiety among nursing students and its correlation with professional adjustment in selected nursing institutions at Mangalore. *Nitte University Journal of Health Science*, *4*(2), 64–69.

Reid-Searl, K., & Happell, B. (2011). Factors influencing the supervision of nursing students administering medication: The registered nurse perspective. *Royal College of Nursing*.

Reid-Searl, K., Moxham, L., Walker, S., & Happell, B. (2010). Supervising medication administration by undergraduate nursing students: Influencing factors. *Journal of Clinical Nursing*, *19*(5–6), 775–784.

Robinson, A. L., Andrews-hall, S., & Fassett, M. (2007). Living on the edge : issues that undermine the capacity of residential aged care providers to support student nurses on clinical placement, *31*(3).

Rotem, A., Bloomfeld, L., & Southon, G. (1996). L EICESTER M EDICAL S CHOOL. *Israel Journal of Medical Sciences*, *9*(32), 705–10.

Running, D. M., Ligon, J. B., Miskioglu, I., London, S., Running, D. M., Ligon, J. B., …. London, S. (1999). from the SAGE Social Science Collections . All Rights Reserved . *Journal of Composite Materials*, *33*(10), 928–940.

Saarikoski, M., Isoaho, H., Warne, T., & Leino-Kilpi, H. (2008). The nurse teacher in clinical practice: Developing the new sub-dimension to the clinical learning environment and supervision (CLES) scale. *International Journal of Nursing Studies*, *45*(8), 1233–1237.

Saarikoski, M., & Leino-Kilpi, H. (2002). The clinical learning environment and supervision by staff nurses: Developing the instrument. *Internation al Journal of Nursing Studies*, *39*(3), 259–267.

Salifu, A. D. (2016). Theory-Practice Gap*: Perceptions of Nurse Faculty and Nursing Students*. *Unpulished Thesis. Digitized by UCC, Library*. University of Cape Coast.

Sawatzky, J.-A. V, & Enns, C. L. (2009). A Mentorship Needs Assessment: Validation Mentorship in Nursing Education. *Journal of Professional Nursing*, *25*(3), 145–150.

Sedgwick, P. (2014). Cross Sectional Studies: Advantages and disadvanta-ges. *British Medical Journal(Online)*, *348*(1), 1–2.

Sharghi, N. R., Alami, A., Khosravan, S., Mansoorian, M. R., & Ekrami, A. (2015). Academic training and clinical placement problems to achieve nursing competency. *Journal of Advances in Medical Education & Professionalism*, *3*(16), 15–20.

Sharif, F., & Masoumi, S. (2005a). A qualitative study of nursing student experiences of clinical practice. *BMC Nursing*, *4*(6), 7.

Sharrock, J., Javen, L., & Mcdonald, S. (2013). Clinical supervision for transition to advanced practice. *Perspectives in Psychiatric Care*, *49*(2), 118–125.

Sin, S. C. J. (2012). Modeling the impact of individuals' characteristics and library service levels on high school students' public library usage: A national analysis. *Library and Information Science Research*, *34*(3), 228–237.

Skaalvik, M. W., Normann, H. K., & Henriksen, N. (2011). a1. Clinical learning environment and supervision: experiences of Norwegian nursing students - a questionnaire survey: Clinical learning environment and supervision. *Journal of Clinical Nursing*, *20*(15–16), 2294–2304.

Smith, M. J., & Liehr, P. R. (2008). *Middle range theory for nursing* (3rd ed). New York.

Smith, M. J., & Liehr, P. R. (2008). *Middle range theory for nursing*. Retrieved from: https://doi.org/10.1093/intqhc/mzg021

Smith, P. (1987). The relationship between quality of nursing care and the ward as a learning environment: developing a methodology. *Journal of Advanced Nursing*, *12*(4), 413–420.

Spouse, J. (2001). Bridging theory and practice in the supervisory relationship: A sociocultural perspective. *Journal of Advanced Nursing*, *33*(4), 512–522.

Stockhausen, L. J. (2005). Learning to become a nurse:Student's reflections on their clinincal experiences. *Australian Journal of Advanced Nursing*, *22*(3), 8–14.

Sullivan-Bentz, M., Humbert, J., Cragg, B., Legault, F., Laflamme, C., Bailey, P. H., & Doucette, S. (2010). Supporting primary health care nurse practitioners' transition to practice. *Canadian Family Physician Médec in de Famille Canadien*, *56*(11), 1176–1182.

Talley, B. (2006). Nurses and nursing education in Ghana: Creating collaborat ive opportunities. *International Nursing Review*, *53*(1), 47–51.

Usher, K., Nolan, C., Reser, P., Owens, J., & Tollefson, J. (1999). An explorat ion of the preceptor role: Preceptors' perceptions of benefits, rewards, supports and commitment to the preceptor role. *Journal of Advanced Nursing*, *29*(2), 506–514.

Van-Rhyn, W. J. C., & Gontsana, M. R. (2004). Experiences by student nurses during clinical placement in psychiatric units in a hospital. *Curationis*, *27*(4), 18–27 10p. Retrieved from http://ahs.idm.oclc.org /login?url=http://search.ebscohost.com/login.aspx?direct=true&db=rzh &AN=106591035&site=ehost-live. Nov. 2017

Vandergast, T. S., & Hinkle, M. S. (2015). So happy together? Predictors of satisfaction with supervision for lay therapist supervisees. *International Journal of Play Therapy*, *24*(2), 92–102.

Vinales, J. J. (2011). *Effective mentoring. Mentoring and supervision in healthcare*. *British Journal of Nursing, 2015* (Vol. 24).

Wagenaar, T. C., & Babbie, E. R. (2005). *Study Guide for the Basics of Social Research*. Toronto Castledine: Thomson/Wadsworth Pub.

Waldock, J. (2010). Facilitating student learning in clinical practice. *Kai Tiaki Nursing New Zealand*, *16*(1), 6–14.

Walsh, K., Nicholson, J., & Keough, C. (2003). Development of a group model of clinical supervision to meet the needs of a community mental health nursing team. *International Journal of Nursing Practice*, *9*, 33–39.

Watkins, M. J. (2000). Competency for nursing practice. *Journal of Clinical Nursing*, *9*(3), 338–346.

WHO & Global Workforce Alliance. Ghana: Implementing a Na- tional Human Resources for Health Plan Global HealthWorkforce Alliance, World Health Organization, Case study. 2008. Available from:http://www. who.int/workforcealliance/knowledge/case_studies/CS_Ghana_web_e n.pdf?ua=1

Wilsonbarnett, J., Butterworth, T., White, E., Twinn, S., Davies, S., & Riley, L. (1995). Clinical Support and the Project-2000 Nursing Student-Factors Influencing This Process. *Journal of Advanced Nursing*, *21*(6), 1152–1158.

Yamane, T. (1967). *Statistics: An Introductory Analysis* (2 nd). New York: Harper and Row.

Yegdich, T., & Cushing, A. (1998). A historical perspective on clinical superv ision in nursing. *Australian And NewZealand Journal OfMentalHealth Nursing, 7(1), 3–24. 8*, *7*(1), 3–24.

Young, K. H., Lee, E., & Sook, E. (2012). Effects of Simulation-based Education on Communication Skill and Clinical Competence in Maternity Nursing Practicum. *Deartment of Nursing, Nambu Universit y, 18*(4), 312–320.

Yonge, O., Billay, D., Myrick, F., & Luhanga, F. (2007). Preceptorship and mentorship: not merely a matter of semantics. *International Journal of*

Nursing Education Scholarship, *4*(1), Article19.

Yonge, O., Myrick, F., & Haase, M. (2002). Student nurse stress in the preceptorship experience. *Nurse Educator*, *27*(2), 84–88.

Zborowsky, T. (2014). The Legacy of Florence Nightingale's Environmental Theory: Health Environments Research and Design Journal. *7*, 19 34.

Zilembo, M., & Monterosso, L. (2008). Towards a conceptual framework for preceptorship in the clinical education of undergraduate nursing students. *Contemporarary Nurse*, *30*(1), 89–94.

Zutshi, H., McDonnell, F., & Leay, D. (2007). Providing Effective Supervision: A Workforce Development Tool, Including a Unit of Competence and Suppor ting Guidance. *Applying Nursing Informatics*, *1*(1), 2–6.

APPENDICES

Appendix A – Information about Research to Participant

UNIVERSITY OF CAPE COAST

SCHOOL OF NURSING AND MIDWIFERY

MASTER OF NURSING

INFORMED CONSENT TO PARTICIPATE IN A STUDY

Research Title: Assessing Factors Influencing Satisfaction with Clinical Rotation Experience of Undergraduate Nursing and Midwifery Students in UDS Tamale.

Principal Investigator: Alhassan Basour Adam

Address: Nursing and Midwifery Training College, Bolgatanga. P. O. Box 255, Bolgatanga. U/E. Email: adambasour@yahoo.com

General Information about Research

This study is being conducted to determine factors that influence satisfaction with clinical rotation experience of undergraduate nursing students in University for Development Studies (UDS). The motivation for this study is that the researcher seeks to establish how Clinical Supervision and Clinical Learning Environment can have influence nursing and midwifery student's satisfaction with their clinical rotation experience.

Procedure

To find answers to some of these questions, we humbly ask you to take part in this research project. If you accept, you will be required to fill out a survey, which will be provided by and collected by Alhassan Basour, my two research assistants.

Possible Risks and Discomforts

I do not envisage any possible risks or discomfort associated with participating in this research since is not an experimental research.

Possible Benefits

Through this investigation, we will gain a greater understanding of the concepts of clinical supervision, clinical learning environment and how they influence nursing and midwifery students' satisfaction with their clinical learning experience.

Confidentiality

All information you provide in this survey would be treated with greatest confidentiality. Not all respondents are required to indicate their names. My two research assistants and I would distribute the questionnaire to you and take it again after completion.

Contacts for Additional Information

If you have any other enquiries or need more clarifications about this research, please kindly contact me on 0246130150.

Participant Agreement

I certify that the nature, purpose, potential benefits, and possible risks associated with participating in this research title "*Assessing Factors Influencing Satisfaction with Clinical Rotation Experience of Undergraduate Nursing and Midwifery Students* have been explained to me.

Signature of participant: …… Date: ……

Appendix B – Data Collection Instrument

FACTORS INFLUENCING SATISFACTION WITH CLINICAL ROTATION EXPERIENCES OF UNDERGRADUATE NURSING AND MIDWIFERY STUDENTS, UDS

SURVEY QUESTIONNAIRE

SECTION A: DEMOGRAPHIC DATA

Please complete the following demographics

1. What is your current age at last birth?

   Provide it here ……

2. What is your gender?

   Male □

   Female □

3. What is your marital status?

   Single □

   Married □

   Devoice □

   Widow □

4. What is your religion?

   Christianity □

   Islam □

   Traditionalist □

5. What ethnic group do you belong to?

   Mole-Dagbani □

   Eve □

   Ga □

Akan □

Specify ……

6. What is the source of your financial support?

Self □

Sponsorship □

Parent □

Guardian □

7. What nursing category do you belong?

General Nursing □

Midwifery □

8. Level of entry

Post-diploma □

Generic □

Clinical Learning Environment

Inventory, Clinical Learning Environment,

Supervision and Nurse Teacher Evaluation Scale

The purpose of this questionnaire is to collect/take your opinions about factors influencing satisfaction with clinical rotation experience. Please tick the appropriate answer as instructed below:

1. STRONGLY DISAGREE (SD)
2. DISAGREE (D)
3. NEUTRAL (N)
4. AGREE (A)
5. STRONGLY AGREE (SA)

No.	SECTION (B) SATISFACTION WITH CLINICAL ROTATION EXPERIENCE	1 SD	2 D	3 N	4 A	5 SA
9	I look forward to attending clinical rotation					
10	I am satisfied with ward documentation					
11	I have a sense of satisfaction with clinical rotation experience					
12	This clinical rotation is not waste of time					
13	I do the same type of tasks in every shift					
14	12 I enjoy coming to clinical setting					
15	13 This clinical rotation is very interesting					
16	Clinical rotation is always organized well					
17	Innovative activities are always arranged for					
18	Clinical tasks assigned to me are always clear					

NO	Question/Statement	1 SD	2 D	3 N	4 A	5 SA
19	The preceptor(s) often plan interesting activities					
20	Routine activities are always clearly explained					
21	My assigned clinical activities are carefully planned					
22	I am satisfied with the methods of practical evaluation on clinical rotation					
23	I am satisfied with the bedside teaching					
24	I am satisfied with the clinical education during my clinical rotation experience					
25	I am expected to do the work in the same way as other students					
26	I am generally allowed to work at my own pace					
27	I usually have a say in how the shift is spent					
28	I am allowed to negotiate my workload					
29	I have little opportunity to pursue my interest					
30	The preceptor(s) do not negotiate when assigning my activities					

SECTION (C) SATISFACTION WITH CLINICAL SUPERVISION						
NO	Question/Statement	1 SD	2 D	3 N	4 A	5 SA
31	I felt comfortable going to the ward at the start of my shift					
32	There was a positive atmosphere on the ward					
33	I felt that I received individual supervision					
34	The supervision was based on a relationship of equality and promoted my learning					
35	My supervisors usually consider my feelings					
36	My supervisors have good interpersonal relationship with me					
37	My supervisors help me whenever I am in trouble					
38	My supervisors often go around talking to me					
39	My supervisors are considerate towards me					
40	My supervisors have good communication skill					
41	I am respected by my supervisors					
42	My supervisors are committed in teaching students					
43	There is a mutual interaction in the supervisory relationship					

NO	Question/Statement	1 SD	2 D	3 N	4 A	5 SA
44	Mutual respect and approval prevailed in the supervisory relationship					
45	The way my supervisors deal with nursing students is satisfactory					
46	I think my supervisors have good teaching skills					
47	I often received a good feedback on my clinical performance from my supervisors					
48	The supervisory relationship was characterized by a sense of trust					
49	I think that some supervisors could be considered as role models					
50	I have the opportunity to discuss clinical issues with my supervisors					
51	Overall, I am satisfied with the supervision I received					
SECTION C SATISFACTION WITH CLINICAL LEARNING ENVIRONMENT						
i. Pedagogical atmosphere on the ward						
52	The staff were easy to approach					
53	During staff meetings I felt comfortable taking part in the discussion					
54	There were no problems in the information flow related to patient care					

55	Documentation of nursing was clear					
56	The staff were generally interested in student supervision					
57	The staff learned to know the students by their personal names					
58	There is sufficient meaningful learning situation on the ward					
59	The learning situation is multidimensional in terms of content					
60	The ward can be regarded as a good learning environment					
61	I think the clinical environment atmosphere was clear					
ii. Leadership style of the ward manager(WM)						
62	The ward manager (WM) regarded the staff and students on her ward as key resources					
63	The ward manager (WM) was a team member of the ward					
64	Feedback from the WM could easily be considered as learning situation					
65	The effort of individual nurse managers was appreciated					

iii. Premises of nursing on the ward						
NO	Question/Statement	1 SD	2 D	3 N	4 A	5 SA
66	The wards nursing philosophy was clearly defined					
67	The nurse teacher (NT) was like a member of the nursing team					
68	The NT and the clinical team worked together supporting students learning					
69	The NT was capable to give her educational expertise to the clinical team					
70	There were no problems in the information flow related to patient care					
71	Documentation of nursing procedures were clear					

Thank you for your time and participation, I am most grateful

Appendix C – IRBS Ethical Clearance

UNIVERSITY OF CAPE COAST

INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: 0558093143 / 0505857830/0244380314
E-MAIL: irb@ucc.edu.gh
C/O Directorate of Research, Innovation and Consultancy

OUR REF: UCC/IRB/A/2016/206
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0009096

16TH FEBRUARY, 2018

Mr. Adam Alhassan Basour
School of Nursing and Midwifery
University of Cape Coast

Dear Mr. Basour,

ETHICAL CLEARANCE –ID: (UCCIRB/CHLS/2017/32)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted **Provisional Approval** for the implementation of your research protocol titled ***'Assessing Factors Influencing Satisfaction with Clinical Rotation Experience of Undergraduate Nursing and Midwifery Students'***. This approval requires that you submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

Please note that any modification of the project must be submitted to the UCCIRB for review and approval before its implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

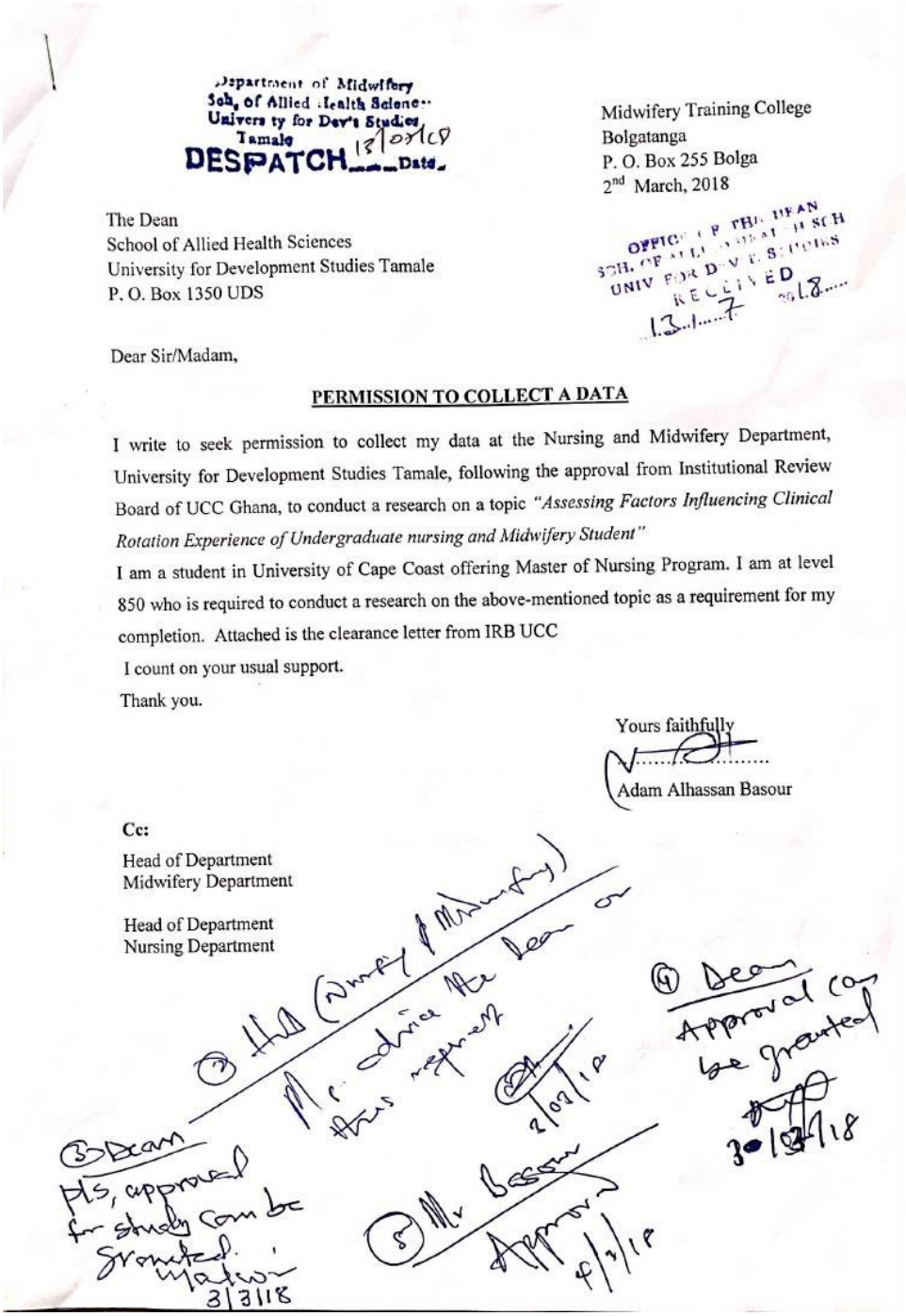
Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu (PhD)
UCCIRB Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST
Date: 19.02.18

Appendix D – Authorization Letter from UDS



Department of Midwifery
Sch. of Allied Health Science
University for Dev't Studies
Tamale
DESPATCH 13/03/18 Date

Midwifery Training College
Bolgatanga
P. O. Box 255 Bolga
2nd March, 2018

The Dean
School of Allied Health Sciences
University for Development Studies Tamale
P. O. Box 1350 UDS

OFFICE OF THE DEAN
SCH. OF ALLIED HEALTH SCIENCES
UNIV. FOR DEV'T. STUDIES
RECEIVED
13.3.18

Dear Sir/Madam,

PERMISSION TO COLLECT A DATA

I write to seek permission to collect my data at the Nursing and Midwifery Department, University for Development Studies Tamale, following the approval from Institutional Review Board of UCC Ghana, to conduct a research on a topic *"Assessing Factors Influencing Clinical Rotation Experience of Undergraduate nursing and Midwifery Student"*

I am a student in University of Cape Coast offering Master of Nursing Program. I am at level 850 who is required to conduct a research on the above-mentioned topic as a requirement for my completion. Attached is the clearance letter from IRB UCC

I count on your usual support.

Thank you.

Yours faithfully

Adam Alhassan Basour

Cc:
Head of Department
Midwifery Department

Head of Department
Nursing Department

① HOD (Nursing & Midwifery) Please advise the Dean on this request 2/03/18

② Dean Approval can be granted 30/03/18

③ Dean Pls, approval for study can be granted. Mathew 3/3/18

④ Mr Bason Approved 4/3/18

Appendix E – Results of Test of Reliability

a). Pre-test Reliability Test

Reliability Statistics

Cronbach's Alpha	No. of Items
.86	10

b). Reliability Test for the Actual study

Reliability Statistics for Clinical Rotation Experience

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.861	.862	22

Reliability Statistics for Clinical supervision

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.913	.914	21

Reliability Statistics for Clinical Learning Environment

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.897	.898	20

Appendix F- Normality Test for the Various Scale

a). Pre-test Results for Normality

Tests of Normality for CRE, CS, and CLE

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
CRE	.137	9	.200*	.968	9	.879
CS	.344	9	.003	.812	9	.010
CLE	.373	9	.001	.752	9	.020

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

b). Actual Statistical Test for Normality

Tests of Normality for Clinical Rotation Experience Scale

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Total score for CRE	.037	224	.200*	.996	224	.783

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Tests of Normality for Clinical Supervision Scale

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Total score for CS	.082	224	.001	.976	224	.001

a. Lilliefors Significance Correction

Tests of Normality for Clinical Learning Environment Scale

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Total score for CLE	.077	224	.003	.977	224	.001

a. Lilliefors Significance Correction

Tests of Normality for Pedagogical Atmosphere Scale

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	*Df*	Sig.	Statistic	Df	Sig.
Pedag_Scal	.110	224	.000	.953	224	.000

a. Lilliefors Significance Correction

Tests of Normality for Leadership Style Scale

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
LeadStyle_ Scal	.141	224	.000	.941	224	.000

a. Lilliefors Significance Correction

Tests of Normality for Premises of Nursing Scale

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
PremNursin _Scal	.081	224	.001	.987	224	.036

a. Lilliefors Significance Correction

Appendix G - Pretest Results

Background Characteristics of Respondents

Variable	Frequency	Percentage (%)
Age		
20-24	3	30
25-29	3	30
30-34	3	30
35-39	1	10
Gender		
Male	4	40
Female	6	60
Marital Status		
Single	7	70
Married	3	30
Religion		
Christianity	8	80
Islam	2	20
Ethnicity		
Dagomber	1	10
Akan	1	10
Others	8	80
Financial Support		
Self	5	50
Parents	4	40
Guardians	1	10
Area of Specialization		
General Nursing	6	60
Midwifery	4	40
Level of Entry		
Post-Diploma	1	10
Generic	9	90

N=10

Participants' level of satisfaction with clinical rotation experience

Variables	Frequency	Percentage
Satisfaction with clinical rotation experience		
Low	0	0
Very low	0	0
High	5	50
Very high	5	50

N=10

Participants' level of satisfaction with clinical supervision

Variable	Frequency	Percentages
Satisfaction with clinical supervision		
Low	0	0
Very low	0	0
High	7	70
Very high	3	30

N=10

Participants' level of satisfaction with clinical learning environment

Variable	Frequency	Percentages
Satisfaction with clinical learning environment		
Low	0	0
Very low	0	0
High	3	33.3
Very high	6	66.7

N=10

Appendix H: Frequency Distribution Tables for Transformed Dichotomous Variables

: Frequency Distribution of Participants Responses on Satisfaction with Clinical Rotation Experience

Satisfaction with Clinical Rotation Experience		Responses							
		SD/D		N		A/SA		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1.	I look forward attending CR	16	7.2	25	11.2	183	81.8	224	100
2.	Satisfaction with ward documentation	70	31.3	59	26.3	95	24.4	224	100
3.	Sense of satisfaction with CRE	53	23.7	58	25.9	113	50.4	224	100
4.	Clinical rotation is not waste of time	26	11.6	13	5.8	185	82.6	224	100
5.	I do the same type of tasks in every shift	86	38.4	39	17.4	99	44.2	224	100
6.	I enjoy coming to clinical setting	29	12. 9	43	19.2	152	67.9	224	100
7.	This clinical rotation is very interesting	40	17.8	45	20.1	139	62.1	224	100
8.	Clinical rotation is always organized well	110	49.1	46	20.5	68	30.4	224	100
9.	Innovative activities are always arranged for me	123	54.9	62	27.7	39	17.4	224	100
10.	Clinical tasks assigned to me are always clear	82	36.6	60	26.8	82	36.6	224	100
11.	The preceptor(s) often plan interesting activities	117	52.2	57	25.4	50	22.4	224	100
12.	Routine activities are always clearly explained	96	42.8	42	18.8	86	38.4	224	100

Continuous

13.	My assigned clinical activities are carefully planned	90	40.2	54	24.1	80	35.7	224	100
14.	I am satisfied with the methods of practical evaluation on clinical rotation	88	39.3	54	24.1	82	36.6	224	100
15.	I am satisfied with the bedside teaching	75	33.5	58	25.9	91	40.6	224	100
16.	satisfaction with the clinical education during CRE	54	24.1	51	22.8	119	53.1	224	100
17.	I am expected to do the work in the same way as other students	73	32.6	42	18.8	109	48.6	224	100
18.	I am generally allowed to work at my own pace	101	45.1	54	24.1	69	30.8	224	100
19.	I usually have a say in how the shift is spent	131	58.5	40	17.9	53	23.6	224	100
20.	I am allowed to negotiate my workload	134	59.8	39	17.4	51	22.8	224	100
21.	I have little opportunity to pursue my interests	66	29.5	51	22.8	107	47.7	224	100
21.	Preceptor(s) do not negotiate when assigning my activities	61	27.2	43	19.2	120	53.6	224	100

Source: Field Survey (2008)

Frequency Distribution of Respondents on Satisfaction with Clinical Supervision

Satisfaction with Clinical Rotation Experience		Responses							
		SD/D		N		A/SA		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1.	I felt comfortable going to the ward at the start of my shift	53	23.7	42	18.8	129	57.5	224	100
2.	There was a positive atmosphere on the ward	48	21.4	66	29.5	110	49.1	224	100
3.	I felt that I received individual super-vision	75	33.5	53	23.7	96	42.8	224	100
4.	Supervision was based on a relationship of equality and promoted my learning	75	33.5	54	24.1	95	42.4	224	100
5.	My supervisors usually consider my feelings	112	50	60	26.8	52	23.2	224	100
6.	My supervisors have good interpersonal relation-ship with me	60	26.8	57	25.4	107	47.8	224	100
7.	My supervisors help me whenever I am in trouble	51	22.8	60	26.8	113	50.4	224	100
8.	My supervisors are considerate towards me	80	35.7	71	31.7	73	32.6	224	100
9.	My supervisors have good communication skills	39	17.4	57	25.4	128	57.2	224	100
10.	I am respected by my supervisors	41	18.3	59	26.3	124	55.4	224	100
11	My supervisors are committed in teaching students	47	20.9	51	22.8	126	56.3	224	100

Continuous

12.	There is a mutual interaction in the supervisory relationship	47	20.9	67	29.9	110	49.1	224	100
13.	Mutual respect and approval prevailed in the supervisory relationship	48	21.5	67	29.9	109	48.6	224	100
14.	The way my supervisors deal with nursing students is satisfactory	48	21.4	74	33	102	45.6	224	100
15.	I think my supervisors have good teaching skills	41	18.3	65	29	118	52.7		
16.	I often received a good feedback on my clinical performance from my clinical supervisors	65	29	55	24.6	104	46.4	224	100
17.	The supervisory relationship was characterized by a sense of trust	55	24.6	60	26.8	109	48.6	224	100
18.	I think that some supervisors could be considered as role models	38	17	41	18.3	145	64.7	224	100
19.	I have the opportunity to discuss clinical issues with my supervisors	63	28.2	46	20.5	115	51.3	224	100
20.	Overall, I am satisfied with the supervision I received	60	26.8	58	25.9	106	47.3	224	100

Source: Field Survey (2018

Frequency Distribution of Respondents on Satisfaction with Clinical Learning Environment:

	(i) Pedagogical Atmosphere of the Ward	Responses							
		SD/D		N		A/SA		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1.	The staff were easy to approach	65	29	51	22.8	108	48.2	224	100
2.	During staff meetings I felt comfortable taking part in the discussion	92	41.1	55	24.6	77	34.3	224	100
3.	There were no problems in the information flow related to patient's care	62	27.7	63	28.1	99	44.2	224	100
4.	Documentation of nursing procedures were clear	50	22.3	60	26.8	114	50.9	224	100
5.	The staff were generally interested in student supervision	66	29.4	68	30.4	90	40.2	224	100
6.	The staff learned to know the students by their personal names	47	21	43	19.2	134	59.8	224	100
7.	There are sufficient meaningful learning situations on the ward	53	23.7	54	24.1	117	52.2	224	100
8.	The learning situation is multidimensional in terms of content	39	17.4	68	30.4	117	52.2	224	100
9.	The ward can be regarded as a good learning environment	41	18.3	48	21.4	135	60.3	224	100
10.	I think that from e clinical environment atmosphere was conducive	60	26.8	62	27.7	102	45.5	224	100

Continuous

		Reponses							
		SD/D		N		A/SA		TOTAL	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
	(ii) Pedagogical atmosphere of the ward								
11.	WM regarded the staff and students on his/her ward as key resource	44	19.6	49	21.9	131	58.5	224	100
13.	The WM was a team member on the ward	38	17	40	17.9	146	65.1	224	100
14.	Feedback from the WM could easily be considered a learning situation	35	15.6	49	21.9	140	62.5	224	100
15.	The effort of individual nurse managers was appreciated	40	17.9	53	23.7	131	58.4	224	100
	(ii) Premises of Nursing on the Ward								
17.	The wards nursing philosophy was clearly defined	69	30.8	75	33.5	80	35.7	224	100
18.	The nurse teacher (NT) was like a member of the nursing team	43	19.2	64	28.6	117	52.2	224	100
19.	The NT and the clinical team worked together supporting students' learning	52	23.2	58	25.9	114	50.9	224	100
20.	NT was capable to give his or her educational expertise to the clinical team	48	21.4	65	29.0	111	49.6	224	100
21.	There were no problems in the information flow related to patient's care	68	30.4	65	29	91	40.6	224	100
22.	Documentation of nursing procedures were clear	57	25.4	53	23.7	114	50.9	224	100

Source: Field Survey (2018)