

**PERFORMANCE OF PRE-SERVICE NURSING STUDENTS IN
MANAGEMENT OF SECOND STAGE OF LABOUR IN KAKAMEGA
COUNTY HOSPITALS, KENYA**

George Lipesa

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the Degree of Masters of Science in Advanced Nursing Practice (Nursing
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DECLARATION

This thesis was written entirely by me, without the assistance of any outside sources, and it hasn't been submitted anywhere else for consideration for a degree or other honor.

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

George Lipesa

HNR/G/01-53860/2019

Approval of supervisors

This thesis has been submitted for assessment with our endorsement as university supervisors.

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

Prof. Lt. Col (Rtd) John. M. Okoth

Department of Nursing, Research, Education and Management

Masinde Muliro University of Science and Technology

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

Dr. Damaris. A. Ochanda

Department of Nursing, Research, Education and Management

Masinde Muliro University of Science and Technology

DEDICATION

I dedicate this thesis to my family, friends and colleagues whose love, encouragement and support have gotten me this far.

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I would like to express my heartfelt gratitude to my supervisors, Prof. John Okoth and Dr. Damaris Ochanda, for their excellent guidance and insightful comments, which have greatly enhanced the quality of my thesis. The staff members of Kakamega County General Hospital, Malava, and Butere Level-4 Hospital are acknowledged for their valuable help and collaboration during the research endeavor.

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There are several individuals whom I would have liked to acknowledge by name for their contributions to the successful completion of this project. I would like to express my appreciation.

ABSTRACT

The second stage of labor is a crucial period of childbirth in which the mother must use force to propel the baby through the birth canal. The objective of this study was to evaluate the proficiency of preservice nursing students in handling the second stage of labor. Specifically, the study aims were; to measure the performance of student nurses in managing second stage of labour, examine student characteristics and assess institutional factors impacting student performance in management of second stage of labour. The study adopted analytical cross-sectional research design combining both quantitative and qualitative methodologies in data collection. The study area was limited to maternity unit labour wards of hospitals in Kakamega county that receive student nurses for clinical placement. The study population composed of 175 nursing students and 8 clinical teachers coupled with ward supervisors. Systematic sampling was utilized to choose study participants. Data collection includes interviewer provided questionnaire, checklist for observing student performance in second stage of labour and key informant interviews conducted with clinical teachers and ward supervisors. Quantitative data analysis procedures included both descriptive and inferential statistics while qualitative material was evaluated thematically guided by the study objectives. For inferential statistics, multiple regression was employed, with a p value of ≤ 0.05 considered as statistically significant. Results on knowledge assessment and its relationship with performance in management of second stage of labour revealed that the students had good knowledge in management of second stage of labour represented by 62.5%, however findings show they had inadequacy in infection prevention practices and inability to make timely decisions represented by 41.7% and 31% respectively. Results on performance in management of second stage of labour revealed that 62.9% exceeded expectation with 24.6% demonstrating remarkable performance. Assessment on the link between self-confidence and performance was statistically significant (OR: 2.7; 95% CI: 1.2 – 5.6; $p = 0.009$). Those who reported health concerns as the cause for missing practicum were 70% less likely to have posted outstanding achievement as compared to their counterparts who never missed or gave other reasons (OR: 0.3; 95% CI: 0.1 – 1.0; $p = 0.05$). Performance was good with participants being accurately able to prepare the mother properly for second stage of labour and 80% of respondents were able to confirm second stage of labour. Majority of the participants were not able to prepare all equipment for delivery (72.6%). throughout performance stage, 90% of the participants were able to assist the mother properly throughout second stage with 92.6% being able to support the perineum accurately. 42.9% of participants replied that they often miss clinical sessions while seeking for fee since they have to complete fee payment before being permitted to travel to clinical area and that there is delay by the institutions in arranging clinical sites thereby affecting length of clinical placement. Shortage of trained staff and clinical instructors to guide students surfaced as another problem affecting performance as mentioned by 24% of participants. Key informants indicated inadequate equipment and resources as the most observed problem for students in the clinical area. In conclusion, student nurses did well in management of second stage of labor yet they were less competent in infection prevention procedures and in making prompt judgments. Key student criteria shown to influence performance include absenteeism relating fee payment to traveling to clinical area. On institutional factors influencing student performance in managing second stage labour included lack or inadequate equipment and commodities, time taken looking for clinical sites, lack of clinical objectives and shortage of staffs/clinical instructors. The study recommends training institutions and placement sites to provide adequate resources for student nurses during clinical attachment and delink fee payment to going for clinical placement.

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LIST OF ABBREVIATIONS AND ACRONYMS

CI	–	Clinical instructor
CSL	-	Clinical Skills laboratory
FIGO	–	International Federation of Gynaecologists and obstetricians
KII	–	Key informant interview
KPA	–	Knowledge, practices and attitude
KMTC	–	Kenya Medical training college
KRCHN	–	Kenya Registered Community Health nurse
LW	–	Labour Ward
NCK	-	Nursing Council of Kenya
NICU	–	New Born Intensive Care Unit
WHO	–	World Health Organization

OPERATIONAL DEFINITION OF KEY TERMS

Attitude: This is a settled manner of thinking or feeling about something. In this

study, these are the observed emotions of the student towards the patient

during the management of second stage of labour

Clinical area: A hospital ward. In this study the clinical area pertains to

maternity unit labour ward

Clinical environment: Everything that surrounds students and affects their

performance in the clinical setting. In this study clinical milieu is the

environment (surrounding) of labour ward in which the student nurse

operates

Clinical instructor: A nursing instructor who teaches, observes and evaluates

the students performance in the clinical area

Clinical objectives: Learning objectives to be attained by the students in the

clinical area. In this investigation, the objectives for labour ward placement

Competence: Ability to perform a task with desirable outcomes under the

varied circumstances of the actual world. In this study competence refers to

knowledge, practices and attitude (KPA) of nursing students during

management of second stage of labour.

Knowledge: Nursing is an art and science that is dependent on theory to

inform clinical skills and practice. In this study knowledge is the facts,

information and skills the student will employ in management of second stage

of labour

Mentorship: The guidance or influence given by a more experienced

individual with less experience in a specific field. According to this study,

mentorship is a professional relationship, through which a competent and

experienced nurse assist, coaches and evaluates the student nurse to enhance achievement of excellent performance.

Nursing program: A three- or four-year program in a community college leading to a diploma or degree in nursing respectively

Nursing student: A student who is enrolled in a three-year college nursing program preparatory to nursing registration. In this study nursing student refers to all Preservice Diploma nursing students who are on labour ward placement

Practice: The actual application or use of idea as opposed to theories relating to it. In this study, it is the rehearsal the student makes in the skills laboratory to polish his/her skills before being exposed to the actual patient in second stage of labour

Placement Attendance: Ability to be present. In this investigation, it is the ability of the student to attend all clinical sessions

Student self drive: It is the internal force that nurtures behaviour, its energy and direction. In this study, it's the capacity of the student to feel welcomed, self- motivated, mentored and having positive attitude at the clinical site

Self-confidence: This is general courage, high self-esteem and absence of anxiety and tension. In this study it is the ability of the pupil to exhibit high levels of courage during management of second stage of labour.

Student Performance: The behavior of the nursing student in the clinical area as related to relevant clinical objectives. In this study performance refers to behavior of the student during administration of second stage of labour

Supervision: Act of directing, guiding or managing a project in order to

ensure things are done correctly and securely. According to this study, supervision is the role performed by experienced clinical nurses in overseeing student nurses performance in management of second stage of labo

CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter offers the backdrop, statement of the problem, broad and particular objectives, research questions, study justification and conceptual framework of the study

1.2 Background to the Study

Healthcare managers are forced to engage recently graduated nurses due to a global shortage of experienced and competent nurses; therefore, it is imperative that they receive effective training to increase their competence (Fukada, 2018). During their clinical practice in clinical learning environments, nursing students gain this competency (Mazloomzadeh et al., 2021). Murray et al. (2018) define clinical performance as a way for student nurses to apply nursing theory so that an integration of theoretical knowledge and practical skills in the clinical situation becomes the art and science of nursing. Sharma et al. (2021) define clinical performance as the hands-on, hospital-site portion of nursing school. Assessment of competence, which is based on a student's capacity to exhibit professional behavior or abilities, determines clinical performance (Soleimani et al., 2024). One important aspect of nursing practice is helping student nurses function well in clinical settings (Henderson & Tyler, 2018). However, Loupy et al. (2023) add that clinical placement is a fundamental requirement for nursing students to have in clinical sites and that it plays a significant role in the quality of care provided by nurses. Koldestam et al. (2023) state that clinical practice performance is the ability to effectively integrate cognitive, affective, and psychomotor skills while providing health care.

According to Öner et al. (2020), the clinical learning environment is a dynamic and complex area where theoretical information can be combined with practical knowledge to create professional skills. In addition, Farahani et al. (2020) clarify that students' performance in a clinical situation is influenced by their surroundings, or the clinical environment. Interaction between students, teachers, personnel, patients, and surroundings happens throughout clinical practice (Hosseinzadeh et al., 2023). According to Mhlongo et al. (2020), nursing students in Africa ought to be affiliated with hospitals that provide the necessary infrastructure and ability to develop nursing students into the future nurses that the community needs. According to Amani et al. (2020), there is a noticeable lack of practice opportunities in Tanzania due to a number of factors, including staff shortages, limited training costs, patient availability (such as shorter hospital stays; sicker patients), budget cuts, and increased class sizes. These factors may also have an impact on lower clinical practice performance. On the other hand, elements linked to clinical practice performance included the ward manager's leadership style, the educational atmosphere of the setting, the nursing ward's premises, and the function of the nurse instructors in connection to the students (Gemuhay et al., 2019). It follows that both the nursing program and the placement site are crucial in shaping nursing students into the ideal candidates for clinical competence. Evidence from Africa indicates that nurses' clinical practice performance is seen as very important to the provision of high-quality healthcare. Students who do poorly in clinical practice are more likely to experience psychological issues such stress, anxiety, and inferiority complex (Msiska et al., 2019). Stakeholders in Kenya are concerned about this issue, as the situation there is similar. Karimi et al. (2021) state that in order for nursing students to develop into

responsible, accountable, and autonomous professionals capable of operating within the parameters of professional practice, they must receive assistance and guidance during their clinical placement. Meanwhile, Edwards et al. (2023) identified clinical teacher incompetence, unsupportive staff, and a lack of opportunities for skill practice as key factors influencing students' clinical performance. Ulenaers et al. (2021) indicated that a good learning environment for students in clinical placement is dependent on an explicit structure of receiving students and an atmosphere where staff take interest in supervising students performing procedures. Additionally, according to Wakhungu (2019), a productive learning atmosphere encourages critical thinking and judgment, enabling students to raise issues without hesitation or fear. A mother's experience giving birth can either positively or negatively impact her psychological well-being, making it a significant life event (Fenaroli et al., 2019). Experiences with childbirth should meet or exceed a woman's expectations, as well as her personal and cultural convictions (WHO, 2018). How women react to their labor experiences is influenced by birthing expectations (Down et al, 2018). During labor, mothers value attentive care, courteous handling, clear communication, and assistance from medical professionals (Downe S et al., 2018). According to a study by Fouly et al. (2018) on nursing students' performance in maternity units, a shortage of supplies pushes students to take "shortcuts" to finish procedures, which lowers their competency. In their study on the connection between student performance during a midwifery placement and the clinical setting, Arundell et al. (2018) found that although the clinical setting can be stressful and anxious for students, it is crucial for the clinical teacher to provide support and direction to the student. Similarly, a Norwegian study on the performance of undergraduate nursing students in the labor ward found that two obstacles to nursing students' performance

in the labor hospital were unfamiliar and obsolete equipment and a lack of it. Students also mentioned that one of the things impeding their performance during the maternity placement was the absence of explicit expectations about what was expected of them in the clinical learning environment. The lady giving birth, her partner, and the caregiver view the second stage of labor as the culmination of the delivery process (FIGO, 2019). Research has indicated that the provision of expert care and preventing difficulties during the second stage of labor have received very less attention. Reducing maternal mortality can be achieved in part by actively promoting the health of laboring women. According to Oukonomou and Chandrahaman (2021), second stage of labour is very important because it is associated with increased maternal and perinatal morbidity as a result of the rapidity of onset of hypoxic stress to the fetus as well as perineal trauma to the mother

1.3 Statement of the Problem

There is a global shortage of qualified midwives, and by 2030, fewer are expected to be in the field. As a result, hiring recently graduated midwives who are less qualified to address the shortfall has occurred. Research on student nurses' clinical performance in Kenya has only examined their overall performance in clinical settings (Wakhungu, 2019). There are no published studies on how well student nurses manage the second stage of labor. One of the top priorities in the 2030 Sustainable Development Goals is reducing maternal mortality. A combination of theoretical and practical learning experiences make up nurse training, which gives students the knowledge, abilities, and mindset they need to perform better (Gemuhay et al., 2019).

A number of nursing schools assign their students to work in the labor ward or maternity unit at Kakamega County Hospitals as part of their clinical rotation

program. The students are under the supervision of qualified nurses, nurse managers, clinical instructors, and other members of the medical team while they are in the labor ward. The public is concerned about how well-prepared students are to perform nursing procedures when they become eligible (Morrell-Scott, 2023). The Nursing Council (NCK) syllabus for 2019 states that before student nurses are permitted to become qualified, they must perform twenty-eight (28) normal deliveries and three (2) abnormal deliveries (NCK record of practical instruction and clinical experience-2019). In order to assess their level of competency, they must also complete a mastery skills assessment in the second stage of labor and the mandatory management of a mother in labor. According to assessor reports following the second stage of labor assessment, there is a discrepancy between the actual performance of student nurses at the placement site and the objective expectations of their performance during this phase of the program (KMTC Assessment Report Register of 2020–2021). According to statistics taken from the labor ward students' assessment register, only 41% of students were able to demonstrate the expected competence during assessments for the last five (5) consecutive assessments, out of a pass mark of 70%. This indicates that students' performance in the mastery skills assessment in managing a mother in the second stage of labor has also been low (Labour Ward Assessment Report Register, 2020 - 2021). Thus, the purpose of this study was to evaluate nursing students' performance in managing the second stage of labor at the maternity units at Kakamega County Hospitals.

1.4 Main Objective

To assess performance of pre-service nursing students in management of second stage of labour in Kakamega county hospitals, Kenya.

1.4.1 Specific Objectives

- i. To evaluate the competence of student nurses in managing second stage of labour.
- ii. To examine individual factors influencing student performance in management of second stage of labour.
- iii. To determine institutional factors influencing student performance in management of second stage of labour.

1.4.2 Research Questions

- i. What is the competence of student nurses in managing second stage of labour?
- ii. What individual factors influence student performance during management of second stage of labour?
- iii. What institutional factors influence student performance during management of second stage of labour?

1.5 Justification

According to Zamanzadeh et al. (2020), treating patients at clinical settings and carrying out operations that take into account the patient as a whole require holistic care. The performance of student nurses in managing the second stage of labor has been gradually declining, even with the provision of the required learning environment. There are challenges for student nurses when they are attached to a clinical setting. Concern over students' low performance on recent examinations has grown (Assessment Register, 2020–2021). The obstacles faced by students can be resolved and they can become competent nurses when they qualify if institutional and student characteristics that affect student performance during their placement in a labor ward are identified (Fenaroli et al

2019). The students' inability to effectively learn and advance in their training will result from a failure to recognize the obstacles and issues they encounter during their placement in the labor ward. When nursing students do well in the labor ward, future labor ward deliveries by women are assured of receiving high-quality care (Oukonomou & Chandrahman, 2021). As a result, the research will shed more light on these variables and aid in the creation of a successful clinical teaching plan. Decisions regarding the course of action to be taken to enhance clinical learning in the labor ward will be made using information gained from the data. The study's findings might provide some insight into the challenges faced by nursing students while completing their clinical rotation in a labor and delivery hospital. Because the study's findings will be disseminated to pertinent institutions and stakeholders, student learning will improve as a result of the investigation, leading to improved performance. The primary goal of the research is to raise the standard of instruction for nursing students. No investigation into the performance of pre-service nursing students during the management of the second stage of labor has been conducted at these facilities. The study's findings will be utilized to strengthen clinical performance by informing pertinent institutions about the difficulties that students encounter at the clinical site. They will also be utilized to help nursing students improve their strengths and weaknesses in terms of their clinical experience.

1.6 Limitations of the study

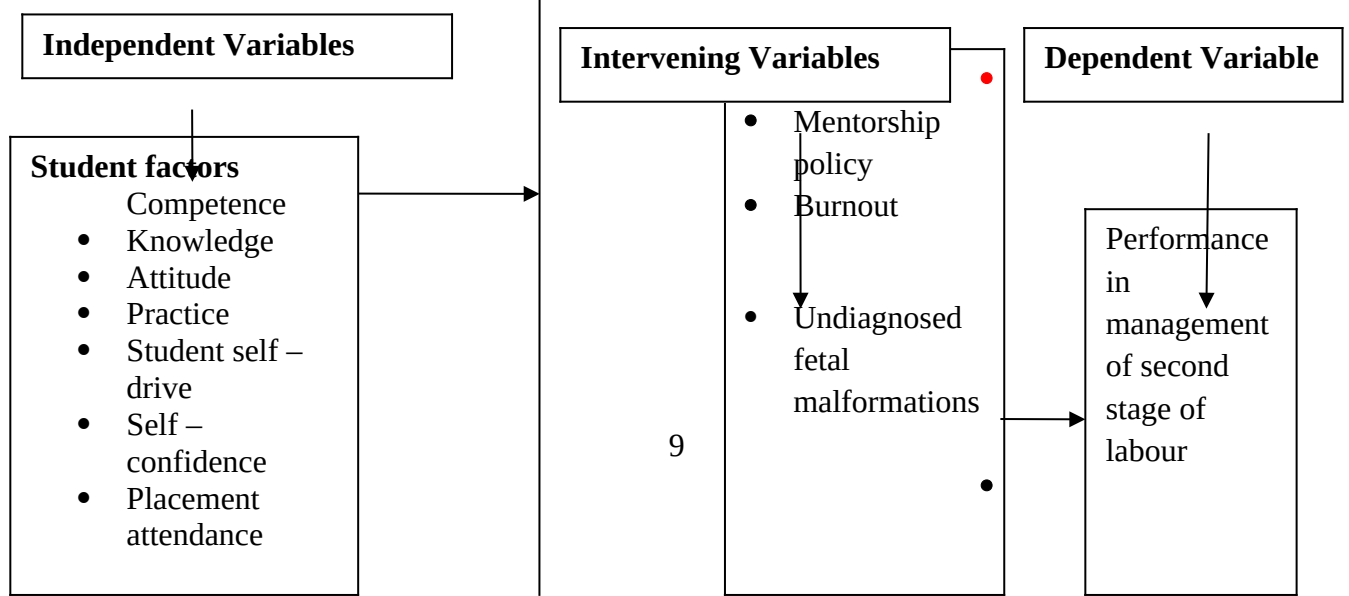
These are obstacles, expected limitations, or possible study flaws imposed by the methods that could affect the research's findings and conclusion (Ross, 2019). The study used a cross-sectional research methodology, meaning that data were only collected once and the results were valid for that specific period of time. The three

clinical sites where the results are to be generalized were the only study sites. By using a systematic sampling procedure, the researcher gave every participant an equal chance of being included in the study. A type II error may occasionally arise with respect to the entire population of nursing students in the County, and a small sample size may make it challenging to ascertain whether a given outcome is a true finding. Possibility of response bias since students may disclose some questionnaire materials to third parties during an interview before formally accessing them. Key informant interviews (KIIs) were used to overcome the constraints in order to get further information about the factors impacting student performance in the management of the second stage of labor for clinical instructors and ward managers who served as mentors to student nurses.

1.7 Conceptual Framework of the study

In their study, Mugambi (2018) suggested that in order to comply with ICM/FIGO recommendations regarding the management of mothers in labor, nursing students should be trained on the most recent versions of standard treatment guidelines. Additionally, refresher courses should be provided to midwives to enhance their knowledge and skills regarding labor management. A conceptual framework that emphasizes the value of precise concepts in evaluating and advancing nursing abilities was put out by Mugambi (2018). The framework facilitates the identification of the essential elements influencing student success. Focused management of the second stage of labor is thought to be greatly aided by the addition of a column to labor and delivery log books for tracking the application of active management of labor and the implementation of clinical audits. The way in which students view their clinical experience could have a favorable or negative impact on their self-drive

(Jaganath et al., 2022). Positive clinical experiences are critical for student nurses' clinical performance, as noted by Masilaca et al. (2018). The nursing students regularly utilize the practice in the health setting, and this requires them to possess the information and abilities necessary for managing second stage labor. Effective administration of the second stage of labor also requires students to be self-driven, self-assured, and placed. Rao (2020) presents the idea of outcome-based education, emphasizing the necessity of defining objectives and coordinating instructional strategies to meet these goals. Reversing the downward trends in health requires a strong health system. Enhanced health systems save health costs, raise life expectancy, and lower newborn mortality rates in addition to increasing productivity. The following is a list of some institutional factors that may have an effect on how well students manage the second stage of labor. Regarding the intervening variables, there are several reasons why students could become burned out. A high-stress work environment, lack of support, sleep deprivation, long work hours, and emotional strain from patient care are some of the most prominent causes of nursing burnout. These variables may occasionally arise from emergency situations that call for students to remain present in the placement center the entire time.



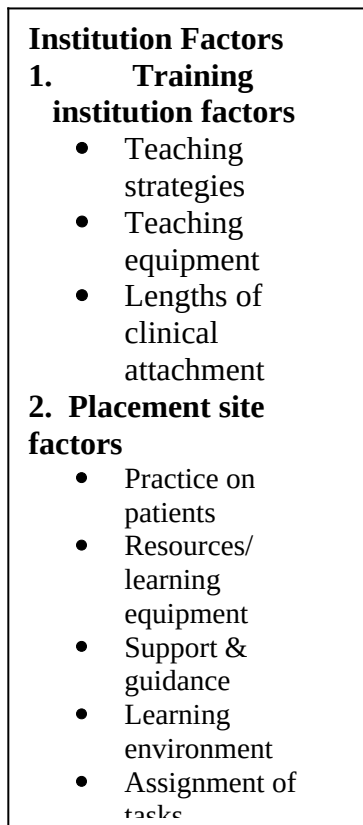


Figure 1.1 Conceptual framework of the study

Source: Mugambi, (2018)

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This chapter examines relevant literature in light of the study's goals. It primarily focuses on how factors such as student performance, training institution and placement site variables, and student factors affect performance in the management of the second stage of labor.

2.2 Labour

Labor is the procedure by which a baby and placenta pass out of the uterus via the vagina (Qian et al., 2019). There are three phases of human labor: the first, second, and third stages. There are two stages in the first stage: the latent and the active phases. A successful labor requires three things: the mother's efforts and uterine contractions, the fetal characteristics, and the pelvic architecture (Qian et al., 2019). The conventional words for this triad are passage, power, and passenger (Qian et al., 2019). Clinicians commonly utilize a range of procedures to monitor labor. Serial cervical examinations are performed to determine cervical dilatation, effacement, and fetal position, commonly known as the station. Fetal heart monitoring is performed almost continuously during labor to assess the fetus's health. The baby's heart rate and the frequency and adequacy of contractions are measured by cardiotocography. Medical professionals use information from monitoring and cervical checks to determine the patient's stage of labor and monitor the progression of labor.

2.2.1 First stage

The first stage of labor begins when the contractions begin and reach their maximum cervical dilatation of 10 cm. Labor may begin spontaneously or be medically induced

for a variety of maternal or fetal reasons (Qian et al., 2019). Among the methods used to induce labor include membrane stripping, amniotomy, intravenous oxytocin, and cervical ripening with prostaglandins (ACOG, 2019). Although it may be difficult to determine precisely when labor begins, it is generally understood to begin when contractions intensify and occur frequently, usually every three to five minutes (Qian et al., 2019). The painful contractions that women may experience during pregnancy but which do not cause cervical dilatation or effacement are referred to as "false labor." Because of this, establishing the beginning of labor sometimes requires relying on arbitrary or retroactive evidence. Friedman et al. (2023) were among the first to chart the progression of labor and discovered that labor started with the onset of a woman's strong, regular contractions. He deduced that the cervical dilation over time graph showed a sigmoidal curve, which is characteristic of labor. Using his labor graphs as a guide, he proposed classifying work into three groups. Cervical dilatation occurs gradually during the first phase, which is a preparatory phase marked by notable morphological and biochemical alterations. This is also known as the latent phase of the first stage of labor. Secondly, the dilatational phase of the initial stage of labor is much quicker and shorter during the active time. Third, there is a pelvic division phase in the second stage of labor (Qian et al., 2019).

2.2.2 Second stage

According to Laura et al. (2018), the second stage is defined as full dilatation of the cervix till delivery, which includes any waiting period before pushing. Second stage was determined by Loughon (2018) using the time between the initial cervical assessment (10 cm dilation) and the delivery time. In their research on laboring moms, Cohl et al. (2018) permitted caregivers to provide a one- to two-hour window for postponed pushing. Postpartum hemorrhage, the requirement for blood

transfusions, and cesarean deliveries were all linked to delayed pushing. According to statistics, uncorrected delayed second stage may raise the chance of neonatal mortality, infant trauma, and NICU hospitalizations. Delayed second stage may also have a negative impact on the outcomes of both mothers and newborns. Providing nursing care to a pregnant woman who is in labor is a difficult challenge for nurses, as it necessitates quick evaluation without compromising the precision and quality of nursing care. In contrast, Shorey et al. (2018) found that negative labor experiences may cause mothers to request cesarean sections, delay pregnancy, or refuse to conceive again. The World Health Organization (2018) states that bad childbirth experiences can result in post-traumatic stress disorder. In addition to abuse, indifference, and harsh nursing staff, mothers in the same research described excruciating labor pains without much help from providers and overcrowding by nursing students. WHO (2018) states that during the second stage of labor, women should visit a kind and compassionate midwife who will clearly explain labor progress and management, get permission for operations, maintain a clean atmosphere, and provide privacy.

2.2.3 Third Stage

The third stage of labor begins with the fetus's birth and finishes with the placenta's delivery. An extended umbilical cord, a palpably spherical uterine fundus, and a blood spurt at the vagina are the three main signs indicating the placenta has split from the uterine interface. Normally, the placenta extrudes on its own about five to thirty minutes (Qian et al., 2019). Delivery periods more than thirty minutes are associated with postpartum hemorrhage, which may need manual removal or other intervention. The third stage of labor is managed by applying simultaneous fundal pressure and strain on the umbilical cord to hasten placental delivery.

2.3 Clinical Training of Nursing Students

Students need to be well-prepared to handle the realities of the workplace they will be working in due to the growing importance of new technologies in the medical field as well as rising patient and customer expectations (Gupta et al., 2019). According to Perry et al. (2018), a student's performance is their capacity to exhibit competence in carrying out a skill or behavior. In Kenya, nursing education consists of both classroom instruction and hands-on training. This helps the student to get the information, abilities, and mindset needed to provide patients with better nursing care. According to Smart et al. (2019), nursing schools should be in charge of educating and producing nurses with a high degree of clinical performance in order to meet the demands of all parties. Nursing students' performance in the clinical setting is influenced by several student variables, including motivation and confidence, in Africa (Delpont et al., 2019). Lack of self-motivation may prevent nursing students from acquiring the information, attitudes, and practical skills necessary to succeed in the demanding field of nursing (Hogg et al., 2018). According to a research on nursing students' clinical performance done in Botswana by Rajeswaran et al. (2017), nursing students lacked the necessary fundamental behaviors that would have improved their learning during clinical placement. Similarly, a research by Rajeswaran (2018) found that a nurse in Botswana with an advanced degree of clinical performance also has a significant and favorable association with clinical self-efficacy, which results in job satisfaction, professional dedication, and empathy for coworkers and patients. It was the responsibility of the people overseeing the nursing programs to support the nursing students in order to keep them engaged during their clinical rotation. In the clinical context of a healthcare facility, theory and practice are connected, and meaningful

practical learning is constructed for student nurses. The evaluation of competence, which is based on a student's capacity to demonstrate professional skills or behavior, determines clinical performance (Park et al., 2018). Insightful journaling has been used in studies as a student-directed learning strategy to assist students in reflecting on their clinical experiences. Students may identify gaps in their learning via reflection. It fosters the growth of self-awareness, critical thinking abilities, and confidence. Reflections may serve as a platform for discussing upsetting encounters encountered in therapeutic practice. Analyzing these insights contributes to enhancing the clinical learning environment and improving student training outcomes. The use of recorded reflections may improve student learning and fortify their professional integration. Performance of nursing students at practice site has developed into a key concern to many stakeholders and it is a core concern for managers, professional associations, government and society as a whole in Tanzania (Gemuhay et al., 2019). The situation is similar to Kenya, for training of nurses is a combination of both theory and practical learning experiences, which enables the learner to acquire knowledge, skills and attitude to improve nursing care (Nabolsi et al., 2022).

Studies by Langat (2019) on students in clinical placement observed that an increase in students' perception can lead to an increase in scores in student performance, assess students' reflective work to identify learning enhancers and barriers that can help improve nurse training. Even though reflective writing has been a continuous clinical nurse education practice globally, analysis of journal reflections to identify student nurses' clinical experiences is scanty in Kenyan setting. The few studies that have analysed student

reflections found that most students were concerned about whether they acted professionally in performing nursing procedures. Another study identified feedback, taking responsibility and the opportunity to practice as factors that promoted students' clinical performance. Hindering factors included inconsistent supervision and feelings of personal inadequacies. At the same time Gemuhay et al., (2019) opined that it is the nursing schools who are responsible to educate and produce nurses who have high level of clinical performance to satisfy the needs of all concerned bodies and therefore they are the main determinant factors that should be looked at

2.4 Student Performance on Management of Second Stage of Labour

It is difficult to adequately train student nurses for the efficient and kind practice of nursing in the quickly evolving health care environments of today. When recent graduates join the industry, they find that they lack the practical knowledge and self-assurance necessary to function in the extremely dynamic and demanding clinical environment that is exacerbated by rising patient perception and nursing workload (Duchscher, 2018). In order to assess new graduate nurses' preparedness for practice, it is critical to look at their knowledge and attitudes (Casey & Campbell, 2018). In the meanwhile, low-quality healthcare services in real-world settings may result from the knowledge and practice gaps (Hakimi et al., 2019). To satisfy the needs of the workplace and profession and to improve the standard of intrapartum care, student nurses must get the necessary information and abilities to conduct AMTSL (Amasha et al., 2020; Bhutia et al., 2018; Tan et al., 2018). Because of the possibility of PPH, the second stage of labor is the most dangerous (Bhutia et al., 2018). Worldwide, PPH affects over 14 million women annually (WHO, 2021). According to estimates, there were 37 maternal fatalities for every

100,000 live births in Egypt in 2017. Twenty percent of them were PPH (Demographics et al., 2020). Achieving health and well-being for everyone is the third of the 2030 Sustainable Development Goals, and reducing maternal mortality is a top objective. The WHO's Strategies for Ending Preventable Maternal Mortality (EPMM) are centered on mitigating the disparities that lead to variations in the availability and caliber of healthcare among nations. In order to assure high-quality care services, high-performing healthcare systems must be built, and this requires the use of EPMM tactics. Effective AMTSL may, in fact, prevent PPH, a leading cause of maternal mortality (Center of Excellence in Maternal and Child Health, 2021; Jolivet et al., 2018). Around the globe, AMTSL is a crucial component of PPH preventive plans (Bhutia et al., 2018; Muzeya & Julie, 2020).

2.5 Factors influencing performance of student nurses during clinical placement

The rapid advancement of technology in the medical industry, along with the ever-evolving expectations of customers and patents, necessitates that student nurses be equipped to navigate the realities of the workplace. A research by Jamshid et al. (2018) on the difficulties faced by Iranian nursing students during their clinical placements found that insufficient student preparedness and poor student-teacher communication are the two main variables influencing clinical performance. The perceived function of clinical instructors in supporting the development of clinical reasoning abilities in nursing students was investigated by Rajeswaran L. and Mulholland S. (2020), who emphasized the need of appropriate mentoring during placements. The clinical performance of nursing students in Korea is influenced by a variety of variables, including institutional, cultural, and educational effects. Cho et al.'s (2020) investigation of these aspects revealed important institutional elements that impact student performance during clinical placements. Mullira et al. (2020)

investigated how organizational culture, workload, and resource availability affected their performance. The research found that students' capacity to function effectively is hampered by a lack of resources. Another research conducted by Shokri Adlay et al. (2018) on the variables impacting the clinical performance of nursing students in Kuwait found that incompetent clinical teachers, unsupportive staff, a lack of chances for skill practice, and patient unwillingness to be handled by students were all detrimental factors. Several variables may negatively impact performance in the clinical practice learning environment for nurses, particularly in African settings (Hemshire et al., 2020). The hospital setting, socioeconomic considerations, student factors, and nurse tutor factors are some of these aspects. One difficult and significant problem is the lack of nurses in the workforce, especially in Sub-Saharan Africa (Nakweenda et al., 2022). In response, the Malawian government has created an ambitious plan to expand nursing schools and dramatically increase the number of nurses in the nation. As of right now, more than governmental and private colleges in Malawi provide nursing as one of their most popular academic programs (Simwaka et al., 2020). According to a research by Gemahay et al. (2019) in Tanzania on the variables impacting diploma nursing students' performance in clinical practice, there were differences in the students' levels of self-drive during clinical placement. The same survey also revealed that 84.4% of students thought that clinical placements provided sufficient opportunities for clinical practical learning, and seventy-one percent of participants said that low self-esteem and tardiness to work were the main causes of student performance issues. Odanga (2018) noted that inadequate student assistance during clinical placements is one of the issues affecting Kenya's health industry and student performance. In their research, Mariam et al. (2019) found that clinical

instructor ineptitude, unsupportive staff, and a lack of opportunity for skill practice were the main variables affecting Kenyan students' clinical performance.

2.6 Student factors influencing performance in Management of Second Stage of Labour

The public's constantly shifting needs for health care means that student nurses need to be ready for the unpredictable employment market that lies ahead. This may be done by giving students a variety of experiences to help them gain confidence and use the knowledge they gain to handle patients' medical problems in the future (Wakhungu Metrin, 2019).

2.6.1 Competence

According to Chen et al. (2020), competency is the capacity to carry out a job with desired results in a variety of real-world situations. Clinical competency is defined as a student's capacity for critical thought, decision-making, providing patients with safe, standardized treatment, and learning via clinical experience. Nursing placement locations and institutions are crucial in shaping nursing students into the ideal clinical competency. Assessment of competence, which is based on a student's capacity to exhibit professional behaviors or skills, determines clinical performance (Shirley, 2008). In clinical learning contexts, students gain competency throughout their clinical practice (Baraz-Pordanjoni et al., 2018). Lack of practice opportunities, inadequate supervision at clinical practice locations, and inadequate assistance and guidance during clinical placement may all have an impact on competence (Walter et al., 2020).

2.6.2 Knowledge

Nursing is both an art and a science, and clinical skills and practice are informed by theory (Sakamoto, 2018). This involves the student applying the theoretical information she has learned in class to the clinical setting. How does the information acquired become applied on the ward? Many students cited a lack of theoretical understanding as one of the contributing causes to subpar performance in clinical procedures in a research on the perception of clinical performance among students at Shiraz University in Iran.

2.6.3 Attitude

These are the student's sentiments for the patient whom they are caring for. According to Steve et al. (2019), a clinical learning environment is a secure space where the theoretical and practical components of the curriculum may be combined to create professional skills and attitudes. The way a student feels about the clinical setting and the processes inside may either positively or negatively impact how well they do overall (Macknowski, 2019).

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2.6.5 Placement attendance

Students' performance in the clinical field may suffer as a result of absenteeism. A research conducted in Tanzania by Brook et al. (2021) on the variables influencing nursing students' success in clinical practice found that student absenteeism from duty was one of those factors. In order to perform clinical procedures, students need enough time in the clinical setting. In their investigation, Brook and Kemp (2021) discovered that students' clinical attachment absences impede with their ability to learn. Similarly, absenteeism was shown to be a hindrance to excellent performance in the clinical setting by Helena Marco Gem Hay et al. (2019) in their research on variables influencing performance in clinical practice among student nurses in Tanzania.

2.6.6 Student Self-drive

It is the innate drive that gives behavior its vigor and focus. According to Bernadino et al. (2018), pupils perform better when they feel accepted and have confidence in themselves. Because they have greater levels of self-efficacy, students with high self-esteem find it simpler to perform (Klooster, 2020). In their 2020 study, Ganley B.J. et al. underlined the significance of motivation and self-regulation, both of which support self-drive during clinical placements by providing ways for fostering engagements and fostering preparedness in a clinical context. Both academic self-efficacy and self-esteem were shown to be positive predictors of excellent performance success by Emeghebo, L. & Ikpeze, T.C. (2021) in Nigeria, indicating that students with greater levels of self-esteem typically do better. Students who were successful and self-motivated were upbeat and ready to study (Lewallen & Debrow, 2018). When students approach the learning environment with positivity, they do better. Poor communication, feeling undercut, attitude, and mentoring may all kill

self-drive (Chessor & Long, 2019). According to Akinzolu (2020), a teacher's background and credentials—particularly those of those who assist students in the clinical setting—have a big influence on how well their pupils succeed. Additionally, Joolasee et al. (2018) found that one of the key elements influencing the caliber of clinical performance is nursing students' exposure to and preparation for entering the clinical environment. This research focused on the clinical education of nursing students.

2.6.7 Self Confidence

According to Alrashidi et al. (2023), students develop the confidence to use the abilities they have learned to conduct processes in a variety of contexts. The more chances students are given for experiential learning, and the more important a role their own interests play in improving their clinical learning. According to research by Bernardino et al. (2018) and Dale et al. (2019), students' self-confidence has a significant role in both their academic success and professional development. In their investigation on enhancing student performance in the clinical setting, Karimi et al. (2021) came to the conclusion that a person's overall bravery and self-assurance were crucial components of enhancing their clinical performance. It is easier for students with strong self-esteem to study and function in the clinical setting (Alrashedi MS, Alqarni AS, Gonzales F, Bassuni EM 2023). Poor mentoring and a lack of communication between the instructor and the student nurse may quickly erode self-drive (Alrashidi et al., 2023). Studies have shown that a nursing student's first clinical experience might significantly influence their decision to pursue further nursing school (James & Chapman, 2020). Students that suffer from anxiety during their clinical placement may fail to learn, which might lead to a failure to meet clinical goals or subpar performance in the clinical setting (Mellincarage, 2021).

Students may experience stress and anxiety in a clinical environment. As a result, during the students' clinical attachments, the clinical supervisor must provide assistance (Holland & Lauder, 2022).

2.7 Institutional factors influencing student Performance in management of second stage of labour

All of the elements that have an impact on nursing students' performance at the clinical site as well as at the training facility are considered institutional variables. Both the instructor and the training facility will not be able to claim any success in the absence of strong student performance (Gilbert, 2018). Numerous literature reviews indicate that a variety of elements, including social, psychological, economic, and environmental

2.7.1 Training institution factors

Numerous institutional elements, which differ throughout institutions, have an impact on students' success. The location and kind of college a student attended affects their success. The management of second stage labor is influenced by a multitude of institutional elements on student performance.

2.7.1.1 Teaching strategies

Institutions have a key role in supporting student learning. Clinical skills laboratories are very important for students to learn clinical skills and polish their performance. In a study by Houghton et al. (2020) in Ireland among nursing students, found that skills laboratories are important to provide a clear pathway to clinical practice. Students can use the skills laboratory when they are in class, before they go to the clinical area, when they are in the clinical area and even during their free time. Clinical skills laboratories provide an opportunity where students learn and practice

their clinical skills hence improving in clinical performance (Polit & Beck, 2021). Smith., & Walker , M.E. (2019) outlines the specific methods and approaches used to engage students in learning about laboratory skills fostering their confidence in that area. Mothiba et al (2020) study at the university of Limpopo south Africa stated that clinical skills labs have a positive impact on the clinical learning of nursing students and that nursing institutions must have a clinical skills lab as they prepare student nurses for learning in the clinical area.

2.7.1.2 Teaching Equipment

Learning equipment are very key in the clinical education of nursing students. Students should be given enough and effective learning equipment to help them achieve the expected learning outcomes in the clinical area. The equipment assists the student nurse to translate whatever has been learnt in theory into real life experience. Some training institutions create unfavourable learning experience due to lack of necessary learning equipment (Rowan et al., 2020). Adom,D (2019) found that while some training colleges in Ashanti region of Ghana had adequate teaching equipment, many faced challenges such as outdated equipment and lack of maintenance and recommended regular maintenance to ensure quality learning. Mukosha, L (2020) in Malawi identified a shortage of teaching equipment in the clinical areas which hindered effective skills training for students. Inadequate equipment in the skills lab may encourage students to use ‘shortcuts’ during procedures because they were not exposed to those procedures prior to going to the clinical area or they may not have had enough practice (Chaun & Barnett, 2018). Smith, C.S *et al.* (2019) examined the impact of learning equipment where restricted availability of equipment can hinder students’ opportunities for hands-on learning experiences potentially limiting their skill. Some training institutions do not have

favourable clinical environment due to lack of learning equipment (Rowan et al., 2020). When there are less learning equipment students are forced to improvise during provision of nursing care eventually interfering with proper acquisition of skills (Lakshmi,2023). According to Msiska et al. (2019), there was need to equip the skills labs to be able to accommodate students during clinical sessions.

Chaun and Barnett (2020) in their study noted that insufficient equipment encourages the student nurse to practice 'short cut 'methods to complete their procedures thus compromising their clinical performance. Strudwick, G. &Nelson, M. (2020) in Canada addresses that student encountering outdated equipment hindered their learning experiences and preparedness for using modern healthcare equipment. Mwaniki J &Njenga J (2019) in Kenya highlighted the impact of shortage of equipment in some training institutions on practical skills development of nursing students and affected the competence of graduates entering the workforce. Lack of necessary equipment impacts on student learning forcing them to improvise on providing care hence hampering learning.

On the other hand, Wakhungu (2019) in her study on perception of clinical learning by nursing students at Moi teaching and referral hospital in Kenya found out that there is need for Hospitals and teaching facilities to establish appropriate planned schedules with adequate time and equipment for practical learning. In addition, Odanga (2018) concluded that there was need for nursing schools to be involved in the clinical training in hospitals so that they monitor the behaviours of the students and enhance the gaps back in the classroom.

2.7.1.3 Length of Clinical Attachment

Students require enough time in the clinical area to practice clinical procedures. Sometimes, the length of time the student is exposed to patients may not be enough for that student to acquire enough clinical practice. Weston *et al.* (2019) found out that limited length of clinical attachment interferes with opportunities for learning. Students may experience competition with students from other institutions hence scramble for patients leading to less exposure eventually hampering learning (Calca, 2020). Gathoni G W & Njogu E M (2019) in their study in Kenya concluded that longer duration of clinical attachment allow students to develop deeper understanding of clinical practice, enhance their clinical skills and improve their confidence in patient care. Lekalakala et al (2022) in their study found out that student nurses were unable to practice clinical procedures because of limited lengths of clinical time during clinical attachment. Short clinical attachment limits the opportunity for the student to have enough exposure to practice on patients.

2.7.2 Placement Site Factors influencing Performance

Placement site is an area where nursing students go for clinical practice. Since nursing is a performance-based profession, clinical learning environments play an important role in the acquisition of professional abilities and train the nursing students to enter the nursing profession and become a registered nurse. Berhe & Gebretensaye,(2021) emphasized the key role Clinical instructors play towards students' performance at the placement site. Portia Janine et al *et al.* (2021) noted that the support received by students from clinical instructors enables them meet the demands of an ever-changing clinical environment. Kevin Bersett *et al.* (2023) identified that qualified nurses act as role models and students imitate most of what

they see them do when handling patients in the clinical area thus having a greater influence on how the students behave in future.

2.7.2.1 Institution Policy on Student Practice on patients

The institution policy should allow students to practice on patients because clinical practice on patients prepares nursing students for their professional role (Sheehan, 2021). Practicing on patients improves quality of clinical experience resulting in competency. Patients provide an opportunity for students to practice clinical skills. Practicing on patients allows nursing students to learn how to apply theory learnt in class in clinical setting (McHugh, 2010). Lofmark & Wilkblad (2012) in examining clinical practice in Sweden identified lack of opportunity for nursing students to practice on patients in clinical area as a problem that affect conversion of theory to practice. Han J. *et al.* (2020) in Korea explored how limited chances to practice on patients during clinical placements negatively impacts students' learning preparedness for professional practice. Tavares W. *et al.* (2020) in Brazil stated that nurse trainers have roles and responsibilities in guiding and supporting nursing students during clinical placements.

Patients are a major resource in the learning of clinical skills during placement of nursing students (Markoski *et al.*, 2021). Barbour J. & Roach S (2019) in United States indicates patients being a major resource in learning of clinical skills hence understanding patient care and promote professional development.). Goh Yong Chua *et al.* (2020) indicated that the aim of clinical practice on patients is to provide nursing students with partial experiences that complements their theoretical knowledge.

Schreiber, J.A., & Lyons R.F (2020) concluded that interactive sessions between patients and students lead to active learning as students practice on patients. However, these have to be backed up by the institutional norms and practice on how they handle students in the classrooms and clinical area. O'Connor *et al.* (2020) in Britain concluded that institutional discipline through structured tutorial sessions can facilitate students' acquisition of clinical skills. Lofmark and Wikblad, (2012) in their study on clinical practice in Sweden identified lack of opportunities for student nurses to practice on patients in the clinical area as an issue that affects acquisition of practical skills affecting performance during clinical placement.

2.7.2.2 Support supervision

Kafadar. D., *et al.* (2020) addressed the importance of supervision in guiding and mentoring student nurses during clinical placements hence increasing student competency. Monitoring students' clinical performance and understanding their perception of skills and abilities and encouraging them are essential to identifying their educational needs and ways to help them professionally. Garcia A & Nyugen T (2021) found that systematic performance monitoring helps identifying the areas of strength and weaknesses in students' skills and providing valuable feedback for improvement. A study conducted in Botswana by Rajeswaran (2019) on clinical performance of nursing students noted that nursing students failed to apply theory into practice because they lack adequate supervision in the clinical area which result in low performance during clinical placement. Omondi, S.G&Mumba, P (2019) concluded that while clinical supervision practices in Kenya has strengths, there are areas of improvement such as standardized supervision guidelines, increased mentorship opportunities and better integration of theoretical knowledge with clinical practice. Trickey H. & Wright A (2019) discovered that inadequate supervision

contributes to affecting student performance. Johnson L. et al. (2019) concluded that effective supervision was shown to facilitate the development of clinical skills and decision-making abilities. Brown A.& Davis M (2020) stated that inadequate supervision can undermine the learning process and contribute to student anxiety and dissatisfaction whereas supportive supervision would foster a positive learning environment where students felt empowered to ask questions, seek guidance and learn from their mistakes. Smith J & Jones K (2018) discovered inadequate supervision led to increased errors and lack of student confidence.

. Martinez E. *et al* (2022) in their findings revealed some challenges faced in providing support included heavy workload pressures from qualified staff due to staff shortage, limited time for one-on-one interaction and varying levels of student readiness and receptiveness. Chen L. and Adams R. (2023) analysed a range of obstacles including limited resources and staff shortage which hindered the ability of supervisors to dedicate sufficient time and attention to students. A study conducted in Botswana by Rajeswaran (2018) on clinical performance of nursing students noted that there was need to improve on guidelines of engagement between the hospitals and nursing schools so as to enhance effectiveness of students in terms of acquisition of clinical skills. Nyangena et al. (2019) indicated that the hospital administration should conduct in-service training to the supervisors of the placed nursing students for this can enhance their interaction and supervision skills of the staff.

2.7.2.3 Learning Environment

According to Closs et al. (2022), the educational setting gives students the chance to apply their theoretical knowledge to the practice of nursing. A poor learning environment may have a detrimental impact on students' abilities and their capacity

to meet therapeutic goals (Acton, 2018). Not every clinical situation promotes learning for students (Hamshire et al., 2019). According to Skordi and Fraser (2019), student happiness is impacted by how well the clinical learning environment is set up. In contrast to classroom instruction, nursing clinical training takes place in a complicated clinical learning environment that is impacted by several variables (McNeil and Borg, 2018). According to Asino and Pulay (2019), nursing students may learn via experimentation in a clinical setting and use their theoretical knowledge to develop a range of mental, psychological, and psychomotor abilities that are important for patient care. For nursing students, the erratic nature of the clinical training setting might provide some challenges. A significant portion of nursing education takes place in clinical settings. In addition, Ravelli (2018) found that over half of Iran's official nursing education programs consist of clinical instruction. Nursing professionals are only as good as the information and skills they were taught as students. According to Henderson and Tyler (2018), student nurses are more likely to feel safe making errors and integrate into the healthcare team in a supportive, creative, and tailored clinical learning setting.

Despite being familiar with the theoretical background, new nurses lack the competence necessary to function in a clinical setting. Increased student testing is one tactic used in the US to help kids get acclimated to tests and evaluations, ultimately leading to improved performance (Maalouf et al., 2024).

2.7.2.4 Assignment of Tasks

To enhance the learning results of pupils, assignments given to them in the ward should be well-organized. It's important for students to know what's expected of them in the clinical setting (List et al., 2019). Veeramah (2019) found that wards

with fewer students gave a higher rating to their perspective than did wards with more students. Compared to departments with twice as many students, clinical instructors are more likely to mentor fewer learners in the clinical setting (Zheng Xing Gong et al., 2022). When students are in the clinical setting, institutions have to provide them group talks, in-person meetings, and simulation exercises. To optimize the nursing students' learning of clinical skills, it was necessary to improve the supervision structures.

According to a Namibian research, the majority of patients preferred to be cared for by competent professionals rather than by students (Pinehas et al., 2023). According to a different research done in Nigeria by Joseph et al. (2022), an efficient learning environment encourages critical thinking and judgment, enabling pupils to raise concerns without hesitation or fear. Additionally, Saidi et al. (2018) noted that in order to support nursing students' clinical training, nursing training schools must have enough resources since overcrowding there has a detrimental impact on students' ability to acquire clinical skills.

2.7.2.4 Learning Equipment

In order to provide nursing students with a clinical education, learning tools are essential. Enough efficient learning resources should be provided to students in order to enable them to meet the required learning objectives in the clinical setting. Msiska et al. (2019) state that hospitals must be furnished in order to house students participating in clinical rotations. According to Smith H. and Johnson M. (2019), having access to the right learning tools has greatly improved students' capacity to apply theoretical knowledge in practical settings and encouraged active involvement. According to Martinez B. & Thompson K. (2020), pupils with insufficient equipment had lower self-esteem and had a harder time studying. According to Garcia E. &

Nguyen T. (2022), students may choose to take shortcuts to make up for equipment limitations, which might lower the quality of patient treatment. According to Anderson K. and Patel R. (2020), having enough equipment improves student chances for hands-on learning and fosters the development of clinical abilities. Conversely, Wakhungu (2019) discovered that hospitals and teaching facilities must set up suitable planned schedules with enough time and resources for clinical learning. This was discovered in her study on how nursing students at Moi Teaching and Referral Hospital in Kenya perceived clinical learning. Furthermore, Odanga (2018) came to the conclusion that nursing schools should be active in practical training in hospitals in order to monitor student behavior and close any gaps back in the classroom.

2.7.2.4 Mentorship

If properly organized, mentoring is a crucial component of therapeutic learning (Mikkonen et al., 2022). According to Zhenxing Gong et al.'s research from 2022, students see mentoring as being crucial to their success in the clinical setting. Positive staff-student interactions, especially those marked by courteous and helpful mentoring, are essential for creating a sense of community among nursing students and improving their educational experience, according to Levett Jones T. et al. (2018). Nursing students who had more interaction with their mentors during clinical practice had a significantly better degree of clinical competence and learning satisfaction compared to those who had less contact, according to research by Kang CM, Lee YH, and Yoon HS (2021). According to Lathlean J. et al. (2018), there are a few things that get in the way of good mentoring, such inadequate student-teacher communication and job stress. A clinical placement with active mentoring has a

favorable influence on students' performance and increases their happiness with the learning process, according to research by Estrella DM et al. (2020).

2.7.2.5 Clinical Objectives

The student is guided by clinical goals on the expectations for her performance throughout the clinical attachment. A poor learning environment may have a detrimental impact on students' abilities and their capacity to meet therapeutic goals (Polit & Beck, 2021). Clinical goals, according to Alshahrani M. et al. (2020), have an impact on students' confidence levels and their capacity to meet learning objectives when completing clinical placements. In a study conducted by Balwani (2020) on the experiences and perceptions of nursing and midwifery students in Malawi, the students identified one of the main difficulties they encounter during their clinical practice, which affects their performance, as the absence of clearly defined expectations of what is expected of them in the clinical learning environment.

2.8 Summary of Literature review and Knowledge Gap

The selection of study sites, which examined the overall performance of the student population in a hospital set up in all departments, and the selection of participants, which included students from different classes, senior and junior students, are the recurring themes for the majority of these studies. The researcher's focus in this study was nursing students who were assigned to the labor ward exclusively. While previous studies examined students' performance in general rather than concentrating on a specific ability, the researcher analyzed students' performance in managing the second stage of labor in this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

The research approach used in this study is presented in this chapter. It includes the target population, study location, design of the study, sampling process, calculation of sample size, data collecting methods, data analysis, ethical considerations, and distribution of research results.

3.2 Research Design

Using a cross-sectional analytical research design, both quantitative and qualitative methods were used. This style of observational research examines information gathered from a population at a certain moment in time (Salkind, 2010). In terms of the time allotted to complete the research, the design was perfect as it allowed for one-time data collection (Fontana, 2010).

3.3 Study Area

The study's scope was restricted to the labor wards of Kakamega County Hospitals' maternity units, which put student nurses there. There are around 2,028,324 people living in Kakamega County, with 405,665 homes. There are one hundred twenty-three (123) dispensaries, fifty-six (56) health centers, ten (15) level 4 hospitals, and one (1) level 5 reference hospital in the county. In all, there are one hundred and fifty-five (195) health institutions. Eight (8) FBO health centers, two (2) private dispensaries, and seven (7) nursing homes/private hospitals. The hospitals where student placement takes place include Butere sub-county hospitals, Malava, and Kakamega County General Hospital. The research was carried of at the level-4 hospitals in Butere, Malava, and Kakamega County General Hospital. Because these hospitals hosted student nurses for maternity laborward experience from various

schools, they were sampled. The reason Kakamega County Hospitals were chosen was because, according to student performance consultative meetings, student performance on practical tasks has been subpar when compared to students in the same placement in nearby counties. The greatest clinical learning facilities used by institutions for clinical learning were the subject of the investigation.

3.4 Study population

Pre-service nursing students on labor ward attachment in the maternity unit of Kakamega county hospitals, representing Kakamega, Kapenguria, Fafa, Mukumu, Ortum, and Webuye Medical Training Colleges. Among the hospitals are the Butere level-4, Malava, and Kakamega County General Hospitals. Recruits included ward supervisors, eight clinical teachers, and 175 pupils in all. There are 97 students enrolled in these institutions during every 4-week placement: 30 students from Malava, 27 students from Butere, and 40 students from KCGH. The hospitals were selected due to their high volume and acceptance of nursing students for placement in their labor wards.

3.5 Inclusion and Exclusion Criteria

3.5.1 Inclusion Criteria

These are the characteristics that the prospective study participants must have if they are to be included in the study (Yale, 2017). The inclusion criteria used in this study included:

- Pre-service nursing students on their 4th week of placement in labour ward.
- The student nurses who had heard at least two previous rotations in labour ward
- Pre-service nursing students who gave consent to participate in the study

- Clinical instructors and ward managers currently working in the facilities.

3.5.2 Exclusion Criteria

The qualities that exclude potential study participants from being included in the research (Yale, 2017).

- Student nurses who were away from labour ward during the study due to various reasons including sick off or sent home for fees
- Those who were unwilling to participate in the study

3.6 Sample size Determination

The minimal number needed for the study results to accurately reflect the ideas and viewpoints of the students participating in clinical placements at the maternity unit of the Kakamega County General Hospital, Butere, and Malava level-4 hospitals was estimated using the formulas used by Fishers et al. (2003). Every kid was intentionally sampled.

According to Mugenda & Mugenda if the population is less than 10,000, the required sample size will be smaller. The final sample estimate (nf) was calculated as:

$$nf = n/(1+n) N$$

Where:

n = the desired sample size when population is more than 10,000

N = the estimate of the population size

$$= 384/(1+384)/320$$

$$= 384/2.2$$

$$= 175$$

The targeted clinical sites included Kakamega county general hospital, Malava sub-county and Butere sub-county hospitals. Stratified sampling technique was then used in the distribution of the required numbers from the five training institutions.

Table 3.1 Health Facility Sample Distribution table

Health Facility	No. of students	Percentage
-----------------	-----------------	------------

Butere	53	30.3
KCGH	76	43.4
Malava	46	26.3
Total	175	100

The study enrolled a total of 175 students, 5 clinical instructors and 3 labour ward nurse managers.

3.7 Sampling procedure

3.7.1 Systematic sampling

This sampling technique involves choosing every Kth instance in the population frame to include in the sample, such as selecting every third student on a student roster who was assigned to a certain health facility from the listed institutions. The students that took part in the research were sampled using the student duty roster. The chosen student nurses have prior experience in a clinical learning setting. Because clinical instructors and ward managers actively participate in students' daily learning while working in the clinical setting, they were specifically chosen for this role.

3.8 Data Collection Tools

In social science research, data collecting instruments are tools used to gather primary data (Kathari, 2009). The approaches differ depending on the researcher's time, financial constraints, and other resources (Orodho, 2008). Questionnaires and telephone or in-person personal interviews are among the approaches used.

A questionnaire consists of brief or targeted questions that are directly related to the research question (Copper & Schiddler, 2011). The interviewer asks the questions or

the respondents respond on their own, and the number of closed-ended questions should always be greater than the number of open-ended questions (Bryman, 2012).

In order to gather information about the participants' opinions and knowledge regarding the quality of clinical placement provided at the maternity unit's labor ward, the researcher created an interviewer-administered questionnaire. Additionally, a checklist was used to monitor student performance during the second stage of labor, and key informant interviews were conducted with clinical instructors and ward managers. The questionnaire was created with validity in mind, taking into account the goals of the research and the results of a review of the literature. 10% of the sample size, or 17 students/participants selected from the maternity ward of Bungoma County Hospital, had a pre-test. Specific goals were compared to every item on the questionnaire.

In order to collect primary data from students, ward supervisors, and clinical instructors, this research employed semi-structured questionnaires that were delivered by interviewers. To guarantee uniformity and research flow, the items were taken from Scarkoski et al., (2012) and other pertinent studies and adjusted (Noordin et al., 2023).

The questionnaire and key informant interview in appendix IV may be found in appendix III.

3.8.1. Structured question for students

There were four parts to the structured questionnaire, which included matrix questions to gather data from the pupils. Nine questions on institutional variables impacting performance in the second stage of labor were included in the third segment, which featured four questions on student elements influencing performance in management of the second stage of labor. The first portion had four questions on

sociodemographic data. Both open-ended and closed-ended items were included in the questionnaire that the researcher created (Wekesa et al., 2019).

3.8.2 Observation Checklist

The most often utilized tool for performance assessment is the observation checklist. With a checklist, the observer may record just the presence or absence of a characteristic. It comprises of a rundown of the actions, behaviors, or activities that the observer notes during an occurrence. It is up to the observer to determine whether a certain activity has occurred. A check list is essentially a way to document whether or not a certain trait is present, or whether or not an action has been done. This offers a straightforward "yes or no" conclusion. A checklist is a crucial evaluation tool in nursing that is used to evaluate performance abilities.

3.8.3 Key Informant Interview Guide for clinical instructors and ward manager

Key informant interviews are in-depth, qualitative interviews conducted with people who are knowledgeable about problems in the community. Key informant interviews are designed to collect data from a wide range of people who have direct knowledge of the community, including leaders, professionals, and locals. Because of their specialized expertise and comprehension, these community subject-matter experts may provide ideas for solutions as well as insight into the nature of difficulties (Jansson, 2019).

There were four parts to the questionnaire that the ward manager and clinical instructor answered. There were four questions in the first segment about sociodemographic information, and seven questions in the second section about how the clinical and learning environments affect clinical learning. Five questions about

how clinical learning affects students' performance in the clinical setting were included in the third segment.

3.9 Pre-testing

In order to determine the validity and reliability of the survey instruments prior to distribution, study participants or members of the target population are tested with questionnaires and survey questions during the pretesting phase of survey research. Pretesting is widely acknowledged as being crucial to improving data collecting in quality-of-life research as well as for the development of survey items. It employs a variety of methods, or groups of methods (Lischetzke & Könen, 2022). Pretesting all of your surveys with at least five participants is often a good idea. It is advised to use a sample of 30 respondents if the survey is more complicated.

In order to make sure that every responder understood the questions in the research instrument and that they were all expressed properly, pre-testing was conducted prior to the actual data collection at the Bungoma County Hospital, another hospital with the same status. Prior to being given to study participants, it sought to find any ambiguities in the questionnaire and ensure that the right item was included. Pre-service nursing students who were employed by the maternity unit participated in the pretest.

Before the data collecting phase, the instruments were pre-tested to determine their significance in addressing the study topics. 10% of the sample size, or 17 students/participants selected from the maternity ward of Bungoma County Hospital, had a pre-test. Pre-test results were used to assess if the tool's questions measured the intended things, whether they were clearly worded, whether there was bias, or whether they elicited a reaction from the participants.

3.10 Recruitment of research assistant

Six research assistants with a nursing education or higher were hired to gather information from study participants. The goals of the study, how to administer the tool, the value of consistency, how to gather back the tools, have them sealed, and how to send the completed tool back to the researcher securely were all covered in the training provided to the research assistants. Each of the three institutions—KCGH, Butere, and Malava hospitals—had two research assistants.

3.11 Data Collection Procedure

The ward managers, clinical teachers, and a sample of students were given the surveys. Data was gathered over the course of three months, from September 21, 2022, to December 21, 2022. Data were gathered through key informant interviews with clinical instructors and ward managers regarding clinical placement of students in labor wards, self-administered questionnaires to gather information on student and institutional factors influencing performance in the management of second stage labor, and observation of student performance during management of second stage labor.

3.12 Validity of instruments

is the extent to which a study's conclusions are valid or well-founded. According to Findley et al. (2021), validity in measurement is the extent to which an instrument measures what it is supposed to measure. Validity is also the approximate limit of an inference. To the degree that a researcher is able to gather supporting data, conclusions drawn from a conjectured cause are legitimate. The degree to which findings derived from the data accurately depicted the phenomenon being studied was the focus of this research. Before the real data collecting period, ward managers and students participated in pre-tests of the study equipment. To determine if the

instruments were well-designed to satisfy the research goals, the pretest results were analyzed (Denly 2021). The pre-test of the questions, which comprised gathering data on a limited scale in the adjacent subcounty (Bungoma County Hospital Maternity Unit – Labor Ward), was used to assess the content validity.

3.13 Reliability of instruments

The consistency with which an instrument measures the desired feature is known as its dependability. Reliability, in the words of Revelle and Condon (2019), is the precision and consistency of the data gathered for the research. Repeated trials on the data should consistently provide findings that are identical to or nearly equivalent, suggesting its dependability (Mugenda, 2018). An instrument is more reliable the less variance it exhibits in repeated measurements. A measure of stability, consistency, or dependability that an instrument uses to gauge an attribute's quality is called reliability. To make sure a tool is appropriate for gathering the necessary data, its content and structure must be examined. The reliability of the instrument was ensured in this research by applying Cronbach alpha to the questionnaire in order to determine internal consistency. An internal consistency of 0.7 or above was considered acceptable. After refinement, the study's Cronbach alpha index was 0.78.

3.14 Data Analysis

Questionnaires that had errors, were irrelevant, or were incomplete were eliminated in order to tidy up the data. The data were identified by unique codes that were assigned. Following cleaning and coding, data input was finished, and the statistical package for social sciences (SPSS), version 26 computer software, was used to do the statistical analysis. Quantitative data was analyzed using appropriate descriptive and inferential statistical methods.

For the purpose of inferential statistics analysis, the scores under each sub-domain were added together to get a total of 34 items. Greater agreement with the respondent's statement was indicated by higher scores. After adding up all of the scores, percentage points were calculated.

Observing the students do a skill—managing the second stage of labor by adding the scores—was the approach utilized to assess performance.

The maximum score for each item was two (2) for a job well done, one (1) for a work only half finished, or zero (0) for no performance at all. The points were added together, with 68 being the highest possible score and 0 being the lowest. The scores were graded using the following ranges after the total scores were converted to percentage scores: >80% excellent, 70-79% (exceeds expectation), 60-69% (meets expectation), 50-59% (needs improvement), and <50% unsatisfactory. The F value was used to assess the model's fit, and a p-value of less than 0.05 suggested that the model was statistically significant.

All independent variables that were statistically substantially linked with the outcome, including both interval and categorical predictors, were included in multiple logistic regression. The adjusted odds ratio (AOR), which takes confounding factors into account, was used to assess the degree of connection between the independent and dependent variables.

A thematic analysis was conducted on the qualitative data obtained from key informant interview schedules. The data from key informant interviews was verified, and each informant's answers were grouped according to the respective topics. This made it easier to identify the replies that kept coming up for a certain subject. The

important points raised by the key informant, as well as any new information gained during the interview, were summarized.

3.15 Ethical Considerations

According to Bassey and Owan (2019), ethical concerns should be carefully considered by researchers since they may occur unexpectedly. Since the researcher was aware of the potential difficulties, great care was taken to uphold ethical standards including informed consent, confidentiality, obtaining ethical approval, and the researcher's role.

3.15.1 Authorizations

The Institutional Scientific and Ethical Review Committee (REF: MMU/COR; 403012 Vol6 (01)) of Masinde Muliro University of Science and Technology (Ref no. MMU/COR:509099) provided ethical clearance and permission. The National Commission for Science, Technology, and Innovation (NACOSTI) issued a permission to the researcher with reference number 493025. We asked the county head of medical services for permission. Kakamega CGK/MOH/ME/VOL1/27 REF NO.

3.15.2 informed permission

Participants were asked to provide this after receiving a comprehensive explanation of the study's objectives and use of the data. The ability to choose to participate or not in the research was emphasized. Every participant had the option to refuse to answer any question at any time they felt it necessary. After making sure the subjects had comprehended the material provided and voluntarily agreed to participate in the study, the researcher next got a signed informed permission from the subjects.

3.15.3 Sensitivity

denotes honoring the privacy of others and refraining from disclosing private or potentially sensitive information about them (Richard Stim, 2018). Respondents may suffer bodily or psychological injury as a result of confidentiality violations. Confidentiality was maintained about the researcher's observations and the participant's statements. The investigator took measures to safeguard participant information against unauthorized access and distribution (CCU, 2014). The participants' unique anonymous codes, rather than their actual names, were used on each questionnaire to identify them, improving confidentiality. Information was restricted to the principle investigator and research assistants.

3.15.4 Privacy

occurs when participants' data cannot be linked by researchers. By guaranteeing that no identification was needed to complete the questionnaire and that people's identities were secured by utilizing numbers, the researcher made sure that anonymity was respected.

3.15.5 Confidentiality

It is appropriate to have some control over the gathering and use of one's personal data. The researcher made sure that confidentiality was always maintained by locking up the material they were supplied.

CHAPTER FOUR

RESULTS

4.1 Overview

The chapter presents the results of this study and is organized in line with the objectives of the study

4.2 Response Rate

All the 175 nursing students and 8 clinical instructors together with labour ward managers took part in the study giving a response rate of 100%.

4.3 Socio-demographic characteristics of study participants

Table 4.1 presents socio-demographic characteristics of students who participated in the study. All the 175 nursing students took part in the study giving a response rate of 100%. In the current study, majority of the students (72.0%) were aged between 21 – 23 years, most of whom were females (62.3%). More than three-quarters (88.6%) were single with leading proportion (43.4%) being from KCGH health facility and were second years (58.3%).

Table 4.1: Socio-demographic characteristics of study participants

Variables	Categories	N	%
Age group in years	18 – 20	6	3.4
	21 - 23	126	72.0
	24 - 26	28	16.0
	> 26	15	8.6
	Total	175	100
Gender	Male	66	37.7
	Female	109	62.3
	Total	175	100
Marital Status	Single	155	88.6
	Married	20	11.4
	Total	175	100
Student Distribution by College	Kakamega MTC	66	37.7
	Kapenguria MTC	24	13.7
	Webuye MTC	44	25.1
	Garissa MTC	19	10.8
	FAFA school of nursing	22	12.6
	Total	175	100
Year of study	2 nd	102	58.3
	3 rd	73	41.7
	Total	175	100

4.4.1 Performance of Students in Management of Second Stage of Labour

Performance was measured by observing the students perform a skill (management of second stage of labour through scoring and adding the scores)

A checklist with 34 items was used to evaluate students' performance which was undertaken through observation as the students performed their assigned activities, the highest score in each item was two (2) if student performed the activities satisfactorily, one (1) if partly done and zero (0) if not performed at all. The scores

were added up with a maximum score of 68 and the lowest score of zero. The overall scores were converted to percentage scores and ranked by assigning a range of scores as follows: $\geq 80\%$ – outstanding, 70 – 79% - exceeds expectations, 60 - 69% - meets expectations, 50 -59% - needs improvement and $< 50\%$ unacceptable. Less than a quarter (24.6%) scored outstanding performance with 62.9% exceeding expectations. The overall performance was good with 43 students scoring outstanding performance and 110 students exceeding expectations. Thus, a high percentage of participants were accurately able to prepare and manage a mother well during second stage of labour.

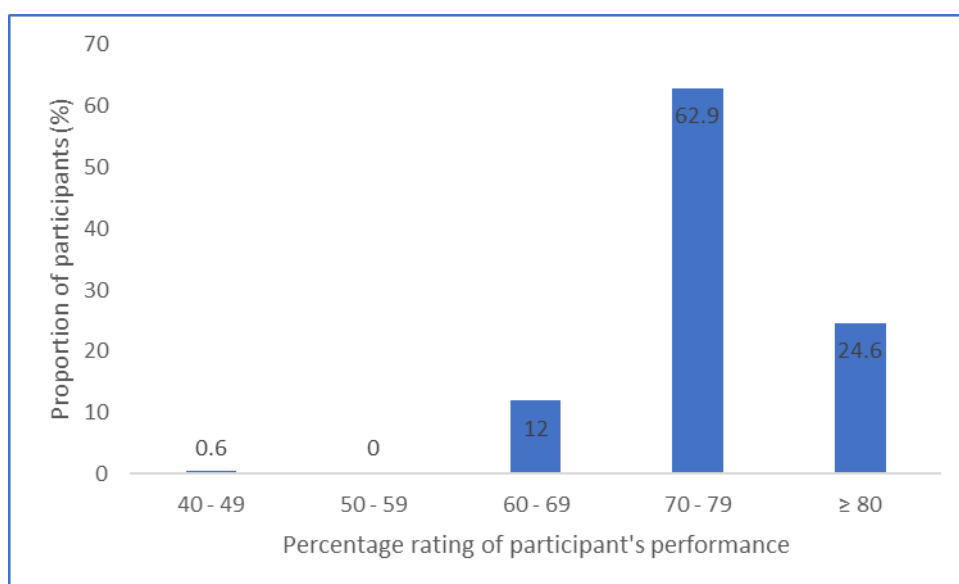


Figure 4.1: Rating of study participant's performance in management of second stage of labour

4.4.2 Knowledge level of study participants on management of second stage of labour

Knowledge level was rated based on ten questions on management of second stage of labour. These were converted into percentage point and rated as excellent (at least 80% and more), very good (60 – 79%), good (40 – 59%), poor (20 – 39%). Results

show comparable proportion of students (32.6%) had excellent or very good knowledge in this particular area.

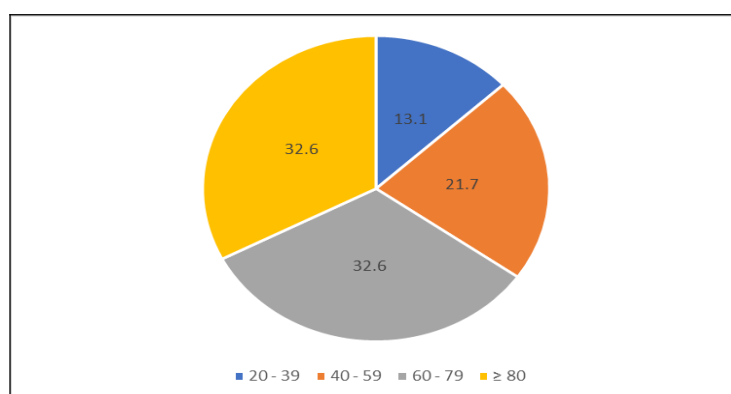


Figure 4.2: Knowledge level of study participants on management of second stage of labour

4.4.3 Socio-demographic factors associated with student performance in management of second stage of labour

Performance rating was treated as outcome variable with a score ≥ 80 rated as outstanding performance and score of < 80 as below the required expectations. As illustrated in Table 4.2 male students were twice as likely to have posted outstanding performance compared to their female colleagues, the results being statistically significant (OR: 2.1; 95% CI: 1.0 – 4.2; $p = 0.04$). Second years were 50% less likely to have had outstanding performance in management of second stage of labour with the results being marginally statistically significant (OR: 0.5; 95% CI: 0.3 – 1.1; $p = 0.07$). The rest of the other student characteristics did not post any statistically significant results. Results on knowledge assessment and its relationship with performance in management of second stage of labour revealed non-statistically significant results ($p = 0.45$).

Table 4.2: Association between students' socio-demographic characteristics and performance in management of second stage of labour

Variable	Categories	N	Performance rating		OR	95% CI	P value
			≥ 80 %	< 80%			
Age group in years	< 24	132	22.0	78.0	0.6	0.3 – 1.2	0.16
	≥ 24	43	32.6	67.4			
Gender	Male	66	33.3	66.7	2.1	1.0 – 4.2	0.04
	Female	109	19.3	80.7			
Marital status	Single	155	24.5	75.5	1.0	0.3 – 2.8	1.00
	Married	20	25.0	75.0			
Year of study	second	102	19.6	80.4	0.5	0.3 – 1.1	0.07
	Third	73	31.5	68.5			
Type of health facility	County	76	19.7	80.3	0.6	0.3 – 1.3	0.19
	Sub-County	99	28.3	71.7			
Knowledge level in percentage	≥ 80	57	21.1	78.9	0.7	0.3 – 1.6	0.45
	< 80	118	26.3	73.7			

4.5 Student factors influencing performance in management of second stage of labour

4.5.1 Students' factors associated with performance in management of second stage of labour

The study examined the relationship between student factors such as self -drive, self-confidence, placement attendance and students performance in management of second stage of labour

4.5.2 Association between students' self-drive, self-confidence and performance in management of second stage of labour

Table 4.3 shows bivariate analysis results on the influence of student factors on their performance in management of second stage of labour. In relation to self-drive factors, students who agreed that attachment was so motivating to them were twice more likely to have performed better than their counterparts who disagreed with the association being statistically significant (OR: 2.0; 95% CI: 1.0 – 4.2; p = 0.05).

Assessment on the relationship between self-confidence and performance showed that students confessing that the course was manageable had high odds of outstanding performance in comparison to those who disagreed (OR: 2.7; 95% CI: 1.2 – 5.6; $p = 0.009$). In contrast, those who agreed that sometimes they felt like giving up due to the workload were 50% less unlikely to have scored outstanding performance (OR: 0.5; 95% CI: 0.2 – 0.9; $p = 0.03$).

Table 4.3: Association between students' self-drive, self-confidence and performance in management of second stage of labour

Variable	Categories	n	Performance rating		OR	95% CI	P value
			≥ 80 %	< 80 %			
Self-drive							
Ability to perform practical tasks without being pushed	Agree	111	25.2	74.8	1.1	0.5 – 2.3	0.79
	Disagree	64	23.4	76.6			
Determination to learn more on your own	Agree	118	22.0	78.0	0.7	0.3 – 1.3	0.26
	Disagree	40	29.8	70.2			
Attachment is so motivating to you	Agree	49	34.7	65.3	2.0	1.0 – 4.2	0.05
	Disagree	126	20.6	79.4			
Self-confidence							
The course is manageable	Agree	96	32.3	67.7	2.7	1.2 – 5.6	0.009
	Disagree	79	15.2	84.8			
Sometimes one feels like giving up due to the workload	Agree	98	18.4	81.6	0.5	0.2 – 0.9	0.03
	Disagree	77	32.5	67.5			
Able to ask questions and get corrected positively	Agree	59	28.8	71.2	1.4	0.7 – 2.8	0.35
	Disagree	116	22.4	77.6			

4.5.3 Association between students' placement attendance, length of clinical attachment and performance in management of second stage of labour

Results on the association between students' placement attendance, length of clinical attachment and performance in management of second stage of labour are presented in Table 4.4 Only one variable under placement attendance yielded statistically significant association while none of the factors considered under length of clinical attachment had no statistically significant relationship with performance. Those who stated health reasons as the reason for missing practicum were 70% less likely to have posted outstanding performance as compared to their colleagues who never missed or gave other reasons (OR: 0.3; 95% CI: 0.1 – 1.0; p = 0.05).

Table 4.4 Association between students' placement attendance, length of clinical attachment and performance in management of second stage of labour

Variable	Categories	N	Performance rating		OR	95% CI	P value
			≥ 80 %	< 80%			
Placement attendance							
Able to attend the clinical practices on time	Yes	151	23.2	76.8	0.6	0.2 – 1.5	0.28
	No	24	33.3	66.7			
Reason for missing practicum	Health problems	30	10.0	90.0	0.3	0.1 – 1.0	0.05
	Never missed or gave other reasons	145	27.6	72.4			
Length of clinical attachment							
Are you given enough time for practice	Yes	161	24.2	75.8	0.8	0.2 – 2.7	0.75
	No	14	28.6	71.4			
The given time was adequate for all theories to be applied practically	Agree	156	24.4	75.6	0.9	0.3 – 2.7	0.78
	Disagree	19	26.3	73.7			
Personal factors affecting length of clinical attachment	Looking for fees	132	23.5	76.5	0.8		0.56
	Other reasons	43	27.9	72.1	0.4		
					– 1.7		

4.6 Institutional factors influencing students' management of second stage management of labour

4.6.1 Association between institutional learning strategies, learning equipment and performance in management of second stage of labour

Table 4.5 shows bivariate analysis results on the relationship between institutional learning strategies, learning equipment factors and performance. One strategic objective with significant association with performance was reported among those agreeing that they were given objectives at the beginning of the practical learning. The results revealed that they were three-fold more likely to have had outstanding performance (OR: 2.9; 95% CI: 1.4 – 5.9; $p = 0.003$). Although the remaining variables under this strategy were not statistically associated with the dependent variable, those who were able to practice more and more to attain a certain level of perfection were up to 3.5 times more likely to have had outstanding performance ($p = 0.13$).

In spite of small numbers, students who agreed that there was enough equipment for performing the practical lessons were about seven times more likely to have done better in their performance (OR: 6.7; 95% CI: 1.2 – 37.8; $p = 0.03$). Similarly, students who were able to use the equipment with ease were 2.7 times more likely to have had outstanding performance unlike those who disagreed (OR: 2.7; 95% CI: 1.2 – 5.8; $p = 0.01$).

Table 4.5: Association between institutional learning strategies, learning equipment and performance in management of second stage of labour

Variable	Categories	n	Performance rating		OR	95% CI	P value
			≥ 80 %	< 80%			
Learning strategies							
Given objectives at the beginning of the practical learning	Agree	54	38.9	61.1	2.9	1.4 – 5.9	0.003
	Disagree	121	18.2	81.8			
Able to ask questions regarding the learning	Agree	127	22.8	77.2	0.7	0.3 – 1.5	0.38
	Disagree	48	29.2	70.8			
Have opportunities to work together to achieve a certain goal	Agree	63	30.2	69.8	1.6	0.8 – 3.2	0.20
	Disagree	112	21.4	78.6			
Able to practice more and more to attain a certain level of perfection	Agree	57	31.6	68.4	1.7	0.8 – 3.5	0.13
	Disagree	118	21.2	78.8			
Learning equipment							
There is enough equipment for performing the practical lessons	Agree	6	66.7	33.3	6.7	1.2 – 37.8	0.03
	Disagree	169	23.1	76.9			
The equipment are in good condition	Agree	38	26.3	73.7	1.1	0.5 – 2.6	0.78
	Disagree	137	24.1	75.9			
Equipment are enough/available	Agree	7	42.9	57.1	2.4	0.5 – 11.2	0.36
	Disagree	168	23.8	76.2			
The students are able to use the equipment with ease	Agree	37	40.5	59.5	2.7	1.2 – 5.8	0.01
	Disagree	138	20.3	79.7			

4.6.2 Association between institutional length of clinical attachment, mentorship and performance in management of second stage of labour

The study explored the relationship between institutional length of clinical attachment, mentorship and performance in management of second stage of labour. On length of clinical attachment, none of the variables assessed had any statistically significant association with performance (Table 4.6).

Concerning mentorship, even though not statistically significant, those who agreed that mentor evaluates the performance and supervises the students learning were up to 3-times more likely to have had outstanding performance ($p = 0.76$). The same was true of who reported that mentor gives advice on how to better the work done where their performance was 2.6 times more likely to have been outstanding as opposed to those who disagreed ($p = 0.96$).

Table 4.6: Association between institutional length of clinical attachment, mentorship and performance in management of second stage of labour

Variable	Categories	n	Performance rating		OR	95% CI	P value
			≥ 80 %	< 80%			
Length of clinical attachment							
Is the length of time for clinical attachment enough?	Yes	155	22.6	77.4	0.4	0.2 – 1.1	0.10
	No	20	40.0	60.0			
Training institutional factors affecting length of clinical practice	Linking fee payment to going to clinical area	63	23.8	76.2	0.9	0.4 – 1.9	0.86
	Other reasons	112	25.0	75.0			
Mentorship							
Mentor evaluates the performance and supervises the students learning	Agree	148	25.0	75.0	1.2	0.4 – 3.1	0.76
	Disagree	27	22.2	77.8			
Mentor gives advice on how to better the work done	Agree	151	24.5	75.5	1.0	0.3 – 2.6	0.96
	Disagree	24	25.0	75.0			

4.6.3 Association between placement site practice on patients, learning equipment, support and guidance and performance in management of second stage of labour

Notably, students in placement sites that reported having an an easy time working with patients were 2.5 more likely to have had outstanding performance (OR: 2.5; 95% CI: 1.0 – 6.0; $p = 0.04$), the association being statistically significant (Table 4.7). Equally, those in placement sites with equipment being in good condition were 2.3 times more likely to have reported outstanding performance (OR: 2.3; 95% CI: 1.1 – 4.7; $p = 0.02$) the same way that students who agreed that they were able to use

the equipment with ease revealed statistically significant results compared to those who disagreed (OR: 2.3; 95% CI: 1.1 – 4.9; $p = 0.03$). On support and guidance, students who agreed that they were guided by qualified staff when performing practical procedures were 60% likely to have done better (OR: 0.4; 95% CI: 0.1 – 0.9; $p = 0.02$).

Table 4.7: Association between placement site practice on patients, learning equipment, support and guidance and performance in management of second stage of labour

Variable	Categories	n	Performance rating		OR	95% CI	P value
			≥ 80 %	< 80%			
Practice on patients							
Have an easy time working with patients	Yes	125	28.8	71.2	2.5	1.0 – 6.0	0.04
	No	50	14.0	86.0			
Frequency in working with patients	Often/Very often	154	24.0	76.0	0.79	0.3 – 2.2	0.65
	Rarely/Sometimes	21	28.6	71.4			
	Rarely/Sometimes						
Learning equipment							
The equipment are in good condition	Agree	63	34.9	65.1	2.3	1.1 – 4.7	0.02
	Disagree	112	18.7	81.3			
The students are able to use the equipment with ease	Agree	40	37.5	62.5	2.3	1.1 – 4.9	0.03
	Disagree	135	20.7	79.3			
Support and guidance							
Am guided by qualified staff when performing practical procedures	Agree	152	21.7	78.3	0.4	0.1 – 0.9	0.02
	Disagree	23	43.5	56.5			
The supervision is worth; you get corrected when a mistake is made	Agree	125	24.0	76.0	0.9	0.4 – 1.9	0.78
	Disagree	50	26.0	74.0			
The supervisors are unfriendly hence creating unease	Agree	15	33.3	66.7	1.6	0.5 – 5.0	0.53
	Disagree	160	23.7	76.3			
The staff is willing to answer questions asked by the students	Agree	90	23.3	76.7	0.9	0.4 – 1.7	0.70
	Disagree	85	25.9	74.1			

4.6.4 Association between placement site learning environment, assignment of tasks and performance in management of second stage of labour

On the association between learning environment in the placement site and performance in management of second stage of labour (Table 4.8), students who agreed that the environment is comfortable for practical learning were twice as likely to have had outstanding performance than their colleagues who disagreed (OR: 2.1; 95% CI: 1.1 – 4.3; $p = 0.03$). The association between having enough workspace to perform the procedures intended and outstanding performance was revealed highly statistically significant results between those who agreed and those who did not agree. Those who agreed were five times more likely to have had outstanding performance (OR: 5.3; 95% CI: 2.2 – 12.9; $p < 0.0001$). Neither of the two variables examined under assignment of tasks yielded statistically significant association with performance.

Table 4.8: Association between placement site learning environment, assignment of tasks and performance in management of second stage of labour

Variable	Categories	N	Performance rating		OR	95% CI	P value
			≥ 80 %	< 80%			
The environment is comfortable for practical learning	Agree	69	33.3	66.7	2.1	1.1 4.3	0.03
	Disagree	106	18.9	81.1			
The environment has staff that assure a smooth learning	Agree	89	22.5	77.5	0.8	0.4 – 1.6	0.51
	Disagree	86	26.7	73.3			
There is enough workspace to perform the procedures intended	Agree	25	56.0	44.0	5.3	2.2 – 12.9	< 0.0001
	Disagree	150	19.3	80.7			
Assignment of tasks							
Student given the right assignments to perform according to the placement objectives	Agree	143	24.5	75.5	1.0	0.4 – 2.3	0.95
	Disagree	32	25.0	75.0			
There are challenges encountered when performing the assigned task	Yes	69	29.0	71.0	1.5	0.7 – 2.9	0.27
	No	106	21.7	78.3			

Qualitative data

4.7 Responses from key informant interviews

Majority of all the Clinical instructors were between the age of 31-35 years and all the ward managers were above the age of 41 years. Majority of all the Clinical instructors were females and all the ward managers were females. Majority of all the clinical instructors were of degree status and majority of the Ward managers were diploma holders. Majority of the Clinical instructors had a practicing experience of 3-5 years. Most of the Clinical instructors had no training in Nursing Education. The same applied to ward managers in the labour ward.

Almost all the Clinical instructors interviewed said that they rarely visited students in the clinical area either due to shortage of staff or financial constraints. Most clinical instructors said that support of students is just average due to shortage of lecturers which came out as a key factor. The ward managers responded that the support of students is not good because lecturers rarely visit students at the clinical area and also the shortage of staff in the clinical area interferes with support of students in the clinical area.

The most observed challenges experienced by clinical instructors when visiting students in clinical area is insufficient equipment and supplies and students are also taken as work force. Ward managers cited that lateness of students, lack of support from their lecturers, lack of supplies and insufficient supplies as key factors challenging students in clinical area. Lecturers said that the hours allocated to students in labour ward clinical placement was enough contrary to all ward managers who said the hours allocated not being enough. Demonstrations was cited as the most appropriate teaching strategies employed when guiding students in the management of second stage of labour. Availability of supplies and good mentorship was identified as most influential factors to the way students perform in management of second stage of labour.

According to key informant interview, it was noted that students do not get enough support from their respective institutions,

“Ok,eeh students do not get enough support because there is.....shortage of staff and therefore to get time to balance between attending to students at college and spare more time to go and support students at the clinical area is a challenge, Respondent “.KII 03

“You may get time to go and visit the students once in a while but it is not easy because of doubling as a clinical instructor and a classroom teacher. You see what I mean, it is not easy at all, Respondent: KII 04

“You see am only given one day in a week to come and support students as a clinical instructor and there are students throughout the hospital in all wards, realistically how do you rotate in all these wards supporting all these students in one day. You can’t achieve much for the students, Respondent”. KII 02

“Aah, due to cost implications, it is very expensive for the college to facilitate you to travel very far to support the students because getting placement sites near college is not easy so we take our students to very far institutions making it hard for the college to facilitate the clinical instructor to visit the students, so...we ,we mostly rely on qualified staff at the facility to help as with students;’Respondent KII 06

“If am alone in the ward, I can’t imagine supporting students as well as attending to other ward matters like ordering supplies, how to I divide myself, shortage of staff is the key issue, Respondent”. KII 08

On challenges faced when following students in the clinical area, it came up clearly that several challenges are experienced when following up students

“Yaah,we don’t have enough supplies in our ward especially the non-pharms like gloves for examining mothers, Soo on this, the students will automatically not have enough opportunities to practice on patients eg assessing the progress of labour like vaginal examinations”. Respondent KII 08

“Ok,we have to share equipment with other wards like blood pressure machines and some of the equipment are faulty and give misleading results”. Respondent KII 07

“Some students report late, others at times miss to come saying that they stay very far or they are looking for accommodation. Some students are not committed to their work they keep disappearing from duty, you keep following them for them to accomplish assignments”. Respondent: KII 06

The Key informant interviews identified demonstrations as key strategy in guiding students in management of second stage of labour

“You see, I think demonstrations are very important but you need to have a demonstration room, a skills lab at the ward together with manikins for demonstration but they are not available”. Respondent KII 03

Mentorship was reported as very key factor that influence students' performance in management of second stage labour

“Yeah, I think good mentorship helps students to perform well. Labour ward should have good mentors who are positive to the learning of students, but.....I think students also should be ready to be mentored because learning is an individual responsibility”. Respondent KII 01

CHAPTER FIVE

DISCUSSION

5.1 Overview

This chapter consists of discussion of the findings from the study, which were compared with those from other research studies. It includes discussion on socio-demographic characteristics, knowledge and competence of diploma student nurses in management of second stage of labour and discussion on factors influencing student nurses performance in management of second stage labour

5.2 Socio-demographic characteristics of study participants

The results showed that majority of students (72.0%) were aged between 21-23 years old. This could be attributed to the fact that the participants had just transitioned from secondary level learning institutions. From the findings, age was not statistically significant to performance in management of second stage of labour. This was in agreement with a study done by which showed that performance was not related to age. However, this finding disagrees with a study by Douglas (2015) which indicated that self-motivation to attain new competencies increases as age increases. The study also showed that more than half of the respondents were females 62.3%. From the findings, gender was not statistically significant in determining performance in management of second stage labour. This results is in consistent with the findings of Alamri (2018) which showed that difference in gender has no effect on skills in management of second stage of labour. In recent years, there has been an increase in the number of male nursing students, however nursing has traditionally been considered a female-dominated profession. In 2020, about 85% of nurses in the United States were female. According to a 2018 survey by the American Association of Colleges of Nursing (AACN), 89.2% of nursing students were female. The results

also showed that more than three quarters (88.6%) were single which is anticipated considering the age range of the study participants since most of them had just transitioned from secondary school. From the findings, marital status was not statistically significant in performance in management of second stage labour. This disagrees with a study done by Cruz (2014) which showed that married student nurses rated themselves higher compared to those who were single. This could be attributed to higher maturity levels and enhanced responsibility. The results revealed that second years were 50% less likely to have posted outstanding performance in management of second stage labour compared to third years. This is in consistent with a study by Zhang (2021) which showed that senior students tend to have high competencies than those with low experience. In contrast, Osborne (2015) stated that performance decreases as clinical experience increases. This is attributed to adjustment at clinical area as nurses gain experience they tend to concentrate more on clinical work.

5.2.1 Competence

Performance of pre -service nursing students in the management of second stage of labour was categorized into preparation and management of second stage of labour. The results showed majority of the students had good knowledge on management of second stage of labour and also had a good understanding of the physiological changes that take place during second stage of labour. The results showed 80.0% of the students accurately confirmed second stage of labour while 88.0% were able to inform the woman that she is ready to deliver.

5.2.2 Attitude

Pre-service nursing students had a positive attitude towards management of second stage of labour. More than 90.0% of the respondents provided effective care during second stage of labour including thanking the mother after delivery.

5.2.3 Practice

The pre-service nursing students exhibited satisfactory practice in the management of second stage of labour by applying appropriate techniques in supporting the mother during the process of second stage of labour. Among the students who were assessed, 92.6% supported the perineum while head was delivered and 92.6% asked the woman not to push when head is delivered.

5.2.4 Knowledge level of study participants on management of second stage of labour

The results showed a comparable proportion of students (32.6%) had excellent or very good knowledge in this particular area. This is in agreement with a study by Riaz *et al.*, in Pakistan (2019) which found that nursing students had inadequate knowledge on the second stage of labour with a mean knowledge score of 37.2%. This was also in agreement with a study by Lee (2019) which showed that most new graduates have low knowledge level as they proceed to internship. These results are in disagreement with a study by Mengistu and colleagues in Ethiopia (2020) found that nursing students had moderate knowledge on management of the second stage of labour with a mean knowledge score of 56.3%. The study participants included senior students only. This is attributed to the level of knowledge the participants had been exposed to before managing mothers in second stage of labour.

5.2.5 Factors influencing performance in management of second stage of labour

The following factors were identified to influence preservice nursing students in managing second stage of labour. They include student factors and institutional factors namely; training institution and clinical site factors

5.3 Student factors

5.3.1 Information on students' self-drive and self-confidence

The results showed that those who agreed that the attachment was so motivating to them were twice more likely to have performed better than their counterparts who disagreed. This was in agreement with Li *et al.* (2018) in their survey in China found that students who reported high levels of self-drive had higher levels of performance. The results were also in agreement with results of Azadi *et al.*, (2018) in a study on nursing students in Iran which found that clinical attachment was positively associated with students' motivation to learn. The same results also agreed with Zhang et al. 2021 in their investigation on self-drive found out that the students who were more self-determined and had higher academic self-efficiency were more likely to achieve better academic outcomes.

Another study by Karabacak and colleagues in 2019 found out students who were more intrinsically motivated were more likely to use effective learning strategies and achieve better academic performance. On self-confidence, the results showed that students confessing that the course was manageable had high odds of outstanding performance in comparison to those who disagreed.

These results were in agreement with a study by Karadag *et al.*, in Tukey (2019), it revealed that nursing students with higher levels of self-confidence had higher academic performance scores. In contrast study participants who agreed that they

sometimes felt like giving up due to workload were 50% less likely to have scored outstanding performance. The results were also in consistent with Kajander-Unkuri *et al.*, (2021) in their study in Europe on perception of nursing students said that around a quarter of nursing students had planned to leave nursing before graduating due to too much pressure on the training.

5.3.2 Information on students' placement attendance and length of clinical attachment

The results revealed that those who stated health reasons for missing practicum were 70 less likely to have posted outstanding performance as compared to colleagues who never missed. These results were in agreement with a study by O'Keefe and colleagues (2017) in United States, the study found that students identify transportation, personal health issues and family responsibilities as potential barriers to length of clinical attachment.

5.4 Training institutional factors influencing students' management of second stage management of labour

5.4.1 Learning strategies and learning equipment

The results showed that those participants agreeing that they were given objectives at the beginning of practical learning were three-fold more likely to have had outstanding performance. This is in agreement with a study conducted by Jeong and Kim (2021), they discovered the nursing students who receive objectives had significantly higher scores than those who did not receive objectives.

Results also revealed that majority of the participants disagreed that there's equipment at the clinical site. This was in agreement with a study by Kari (2021) in United States assessed the adequacy of equipment and found that some nursing programs had inadequate equipment and resources necessary for learning.

These results were also in consistent with another survey done in Malaysia in 2020 by Siti et.al., they stated that the students reported that the equipment used was generally adequate but there was a lot of concern about the condition of the equipment.as well as a survey done in Iran on availability and the condition of equipment in student placement sites, reported that the condition and availability of equipment was inadequate. Some students reported that they did not have access to enough equipment or the equipment was outdated or malfunctioning.

5.4.2 Length of clinical attachment and mentorship

A majority (88.6%) of participants stated that the length of clinical attachment was enough. The results are in agreement with a survey of nursing students in UK, 57% reported that the length of their clinical attachment was adequate for achieving the program's learning objectives. A study conducted by Burch *et al.* (2019) in Australia found that the students who completed the clinical attachment reported higher levels of clinical competence. Gemahay *et al.*,2019 in their study in Tanzania discovered that majority of students (84.4%) agreed that length of clinical placement was enough and offers students adequate opportunity for the clinical practice.

In addition, Kim and colleagues in South Korea (2017), identified that short clinical attachment limits the chance for students to learn by having less exposure to the real world of work hence students not being able to develop their skills.

In regards to mentorship, the study revealed that those who agreed the mentor evaluates their performance and supervises the students learning were up to 3 times more likely to have had outstanding performance and also that those who reported that mentors give advice on how to better work done was 2.6 times more likely to have heard outstanding performance. These results are in agreement with a study by Brouwer and colleagues (2018) in the Netherlands found that students valued having a mentor who provided emotional support, facilitated their learning and professional development.

Another study by Loke et al. (2018) in Singapore investigated the factors that contribute to effective mentorship relationships. The study identified several factors for successful mentorship such as having a shared vision, building trust and rapport and providing constructive feedback.

In addition, a study conducted by Shien et al. (2019) in Taiwan concluded that approachable mentors are important for creating a supportive and positive learning environment for nursing students and that mentorship programs contribute to better performance and should be prioritized in nursing education.

5.5 Placement site factors

5.5.1 Practice on patients and learning equipment

The study revealed that students in placement site that reported having an easy time working with patients were 2.5 times more likely to have had outstanding performance $P:0.04$. A higher proportion agreed that they often work with patients (88.0%). These results are in agreement with a study by Arslan and Yaman Simsek (2020) in Turkey found that nursing students reported feeling confident and

comfortable and found it easy in their ability to work with patients but also identified a need for clinical experience to build their skills and confidence.

These results are consistent with a study by Neilsen and colleagues (2019) in Denmark found that patients generally had positive attitude toward being treated by students and appreciated the extra time and attention they received from students. In Iran, in a study conducted by Ehsani *et al.*, (2019) it was noted that even though patients generally had positive attitude towards the students, they expressed concerns about privacy and confidentiality particularly in situations where multiple students were involved in their care. As regards learning equipment in the placement site, the results revealed that a very small proportion agreed that there is enough equipment for performing practical procedures (5.1%).

Similarly, a small proportion (5.1%) agreed that equipment are enough and available. Thirty-six percent responded in the affirmative that the equipment are in good condition. Those placement sites with equipment being in good condition were 2.3 times more likely to have reported outstanding performance and that they are able to use the equipment with ease (22.9%).

The results are in agreement with a study by Liu *et al.* (2020) in China found that nursing students reported lack of equipment and resources at the clinical placement site which affected their ability to provide high-quality care.

The results agree also with another study done by Tella *et al.* (2018) in Nigeria found that nursing students reported lack of equipment at their clinical placement sites which affected their ability to develop the skills and become competent healthcare providers. In another research by Jiang *et al.* (2019) China, the nursing students

reported a lack of access to modern equipment at their placement sites which affected their ability to provide high quality care.

A study by Hagbaghery et al. (2019) in Iran found that nursing students reported challenges in using equipment at their clinical placement site due to lack of adequate training and guidance. Chaun and Barnnet (2012) in their study noted that insufficient equipment encourages the student nurse to practice 'shortcut' methods to complete their procedures thus compromising their clinical performance.

5.5.2 Support and guidance

The results showed that most of students are guided and supported by qualified staff when performing practical procedures (86.9%) and that those who were guided were 60% likely to have performed better $p:0.02$

These results are in agreement with a study by Annette Nyqvist *et al.*, (2019) in Sweden found that nursing students felt that they received good guidance from qualified staff, however there was need for improvement such as need for clearer guidelines and more consistent feedback.

In a related study by Sharon Wagg *et al.*, (2021) in UK found that nursing students valued the guidance they received from qualified staff during their clinical placement however the study also identified some challenges such as difficulty of finding time for one-on-one guidance and the need for more feedback and support. This is attributed to shortage of staff at the clinical site.

In contrary, a study conducted by Grove et al. (2020) in Norway the students felt that they were able to ask questions but the staff were not always providing satisfactory answers. This is attributed to knowledge gap among the qualified staff

This results also disagrees with a study conducted in Botswana by Rajeswaran (2017) on clinical performance of students noted that the nursing students failed to apply theory into practice because they lack adequate support and guidance in the clinical area which result in low performance during clinical placement. This is attributed to lack of enough time to support students as a result of staff shortage. Delpont (2014) reported that a shortage of nursing workforce in hospitals where nursing students are placed particularly in Sub-Saharan Africa is a challenge that affects support and guidance affecting student performance at the clinical site.

5.5.3 Learning environment

The results showed that majority (92.0%) confirmed that students have practical lessons in the study area. 86.9% agreed that clinical site lack inadequate training materials, tools and equipment with a smaller proportion (39.4%) agreeing that the environment is comfortable for practical learning and there being enough workspace to perform the procedures intended (14.3%). Those who agreed that the environment is comfortable for practical learning were twice as likely to have outstanding performance than their colleagues who disagreed P:0.03

This study is in agreement with that of Caroline Richard *et al.*, (2020) in the UK found out that the nursing students who had more frequent practical lessons had higher levels of satisfaction with their education and were more likely to perform well in the clinical area. Likewise in a study in Canada, by Linda McGillis Hall and colleagues (2019) found out that the nursing students felt that the physical environment in which they received their practical learning had an impact on their ability to perform well in their practical procedures.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Overview

This chapter presents the conclusions and recommendations of the study guided by the specific objectives

6.1 Conclusion

The study revealed several factors that influence student nurse performance in management of second stage of labour. Three categories of factors were assessed i.e., competence of the students, student factors and institutional factors.

6.1.1 Competence of students

Performance was good, nevertheless, there's potential for improvement notably in detecting the need for timely intervention during second stage of labour

6.1.2 Student factors

Student factors such as self – drive, self-confidence and motivation are seen to be significant predictors of good performance in the management of second stage of labour. Missing practicum emerged as the key student factor affecting performance in management of second stage labour as a result of looking for fees, sickness or accommodation issues

6.1.3 Institutional factors

Institutional factors seemed to play a bigger role in successful student performance. Time taken looking for fees before proceeding to the clinical placement as a precondition in most schools really affected placement attendance and length of clinical attachment. Achievement of good performance outcome by nursing students

during placement in labour ward depends on sound placement attendance by students. Students learning strategies and styles are factors that can improve performance in the management of second stage of labour including being given objectives at the beginning of the practical learning, practicing more and more on patients to attain a certain level of perfection as well as having enough equipment and supplies enhances student nurse performance.

Achievement of good performance by nursing students depends on support and guidance received from qualified staff. A good and comfortable environment at the placement site is a good predictor to better performance in the clinical area. Inadequate learning equipment, faulty equipment at both training institution and placement sites emerged as key factors influencing performance in management of second stage labour. It was also noted that students are delayed when colleges are looking for clinical sites. Lack of supplies, shortage of clinical instructors and shortage of qualified nurses to guide student as well as non-provision of clinical objectives to students among others were identified as other factors influencing performance of student nurses in the management of second stage of labour. Finally, as reported by key informant interviews almost all clinical instructors and ward managers who deal with students have no training in nursing education like student performance appraisal and student supervisory skills.

6.2 Recommendations

6.2.1 Student competence

The students were competent but there's need to have more opportunities to practice in the skills lab to polish their skills. Therefore, learning institutions and placement

sites should create opportunities for students to have more coaching opportunities especially where they can have demonstration sessions.

Shortage of clinical instructors emerged as an area that affects students mentorship. More clinical instructors should be employed by learning institutions to guide and support students in the clinical area.

Placement sites to employ more qualified nurses to address staff shortage so that the students can easily access qualified staff for mentorship

6.2.2 Student factors

Accommodation issues and health related factors(sickness) was reported as factors affecting length of clinical attachment. Therefore, arrangements should be made early on students accommodation before leaving to the clinical sites by their respective colleges, Likewise, colleges should make arrangements with placement sites on how students can receive treatment while away from their learning institutions

6.2.3 Institutional factors

We suggest that training institutions and placement sites to invest in learning equipment to give students a chance to practice on to sharpen their skills before actual performance on patients. This will address the problem of shortage of equipment as reported in the study

The placement sites to improve on availability of non-pharmaceutical supplies so that students can use the when handling patients.

The study revealed that a good proportion of students are not given clinical objectives before leaving for clinical area. Colleges should distribute and clarify

clinical learning objectives to students before reporting to clinical placement. The study revealed shortage of qualified nurses to support in mentoring student. Therefore, clinical sites to employ of more qualified nurses to mentor students in the clinical area and supervision of students in clinical practice by nurse lecturers/clinical instructors is essential.

This study recommends training of all nursing staff who participate in students' instruction during clinical attachment in short courses in student performance appraisal and student supervisory skills since none of the clinical instructors had any training in the same

There is need for hospitals and teaching institutions to establish master rotation with well-defined schedules with provision of adequate time for clinical learning so that schools do not delay students while looking for placement sites.

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APPENDICES

APPENDIX I: PARTICIPATION INFORMATION SHEET AND INFORMED CONSENT FORM

My name is George Lipesa, and I attend Masinde Muliro University of Science and Technology as a Master of Science nursing student. The research "The Performance of Pre-Service Nursing Students in Management of Second Stage of Labor in Selected Labor Wards of Kakamega County Hospitals, Kenya" is one in which I cordially welcome you to take part. The study's goal is to evaluate how well pre-service nursing students handle the second stage of labor.

By responding to the study's questions, you will aid in the identification of the variables influencing students' success in the management of the second stage of labor. We anticipate that this study's findings will enhance the educational experience of student nurses working in Kakamega County hospitals' labor wards.

I promise to keep any information I see or you offer me concerning the research completely private. There are no incentives for involvement; participation is entirely optional. Even after giving your approval, you are free to remove or withhold information.

Signature of Participant-----Date-----

Category of student-----

APPENDIX II: QUESTIONNAIRE

SECTION A

Serial No:..... Health facility name:.....

Name of the interviewer:.....

Student Socio demographic characteristics

#	Question	Response	Code
1	What is your age in years?	1. [18-20] 2. [21- 23] 3. [24-26] 4. Above 26	
2.	What is your gender?	1. Male 2. Female	
3	What is your year of study?	1. 2 nd .Year 2. 3 rd .Year	
4.	Your marital status?	1. Single 2. Married 3. Divorced 4. Widowed	

SECTION B

Student factors influencing performance

B1: Student self drive

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
1.You are able to perform practical tasks without being pushed					
2.You are determined to learn more on your own					
3.The attachment is so motivating to you					

B2: Student confidence

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly disagree 5
The course is manageable					
Sometimes one feels like giving up due to the workload					
You are able to ask questions and get corrected positively					

B3: Length of clinical attachment

1. Are you given enough time for practice?

1. Yes [] 2. No []

2. The given time was adequate for all theories to be applied practically

1. Strongly disagree [] 2. Disagree [] 3. Agree [] 4. Strongly agree []

3. What personal factors affects length of clinical

attachment-----

B4: Placement attendance

1. Are you able to attend the clinical practices on time?

1. Yes [] 2. No []

2. Do you miss the practices sometimes?

1. Yes [] 2. No []

If yes what are the reasons

.....

.....

.....

SECTION C

Training institution factors

Please indicate your level of agreement or disagreement with each of these statements regarding the learning strategies

C1: Learning strategies

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
1.Students are given objectives at the beginning of the practical learning.					
2.Students are able to ask questions regarding the learning					
3.Students have opportunities to work together to achieve a certain goal					
4.Students are able to practice more and more to attain a certain level of perfection					

C2: Learning equipment

Please indicate your level of agreement or disagreement with each of these statements regarding the learning equipment at the training institution

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
1.There is enough equipment for performing the practical lessons					
2.The equipment are in good condition					
3.Equipments are not enough/not available					
4.The students are able to use the					

equipment with ease					
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C3: Length of clinical attachment

1. Is the length of time for clinical attachment enough?

1. Yes [] 2.No []

2. The given time was adequate for all theories to be applied practically

1. Strongly disagree [] 2. Disagree [] 3. Agree [] 4. Strongly agree []

3. What training institution factors affect lengths of clinical practice?

Section D

Placement site factors

D1 Practice on patients

1. Do you have an easy time working with patients?

1. Yes [] 2. No []

2. How often do you work with patients?

1. Rarely [] 2. Sometimes [] 3. often [] 4. Very often []

3. Students are able to perform theory and principles learnt in class to a clinical setting?

1. Very rarely [] 2. Rarely [] 3. Sometimes [] 4. Very often []

D2: Learning equipment

Please indicate your level of agreement or disagreement with each of these statements regarding the learning equipment/resources

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
1. There is enough equipment for performing practical procedures					
2. The equipment are in bad condition					
3. Equipments are not enough/not available					
4. The students are able to use the equipment with ease					

D3: Support and guidance

Are you guided by qualified staff when performing practical procedures? 1. Yes 2. [] No []

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
1. The supervision is worth; you get corrected when a mistake is made					
2. The supervisors are unfriendly hence creating unease					
3. The staff is willing to answer questions asked by the students					

D4: Learning environment

Influence of clinical environment on clinical performance

1. Do students have practical lessons in this study area?

1. Yes [] 2. No []

If yes, how often?

1. Rarely [] 2. Less Frequent [] 3. Frequent [] 4. Very frequent []

2. The clinical site has adequate training materials, tools and equipments

1. Strongly agree [] 2. Agree [] 3. Disagree [] 4. strongly disagree []

Please indicate your level of agreement or disagreement with each of these statements regarding the learning environment

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
1.The environment is comfortable for practical learning					
2.The environment has staff that assure a smooth learning					
3.There is enough workspace to perform the procedures intended					

D5: Assignment of task

1. Do you understand the types of assignments issued in order to perform certain tasks?

1. Yes [] 2. No []

2. You are given the right assignments to perform according to the placement objectives?

1. Strongly disagree [] 2. Rarely [] 3. Sometimes [] 4. Strongly agree []

3. Are there any challenges encountered when performing the assigned task?

1. Yes [] 2. No []

If yes which ones

.....

.....

.....

4. The assignments are clear on how one is to perform the task?

1. Strongly disagree [] 2. Disagree [] 3. Agree [] 4. Strongly agree []

Mentorship

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
1.The mentor is well informed with the profession					
2.The mentor evaluates the performance and supervises the students learning					
3.The mentor gives advice on how to better the work done					

APPENDIX III: KEY INFORMANT INTERVIEW SCHEDULE FOR CLINICAL INSTRUCTORS AND WARD MANAGERS

State whether 1. Clinical instructor [] 2. Ward manager []

1. What is your age in years? 1. [25-30] ☐ 2. [31-35] ☐ 3. [36-40] ☐ 4. Above 41 ☐

2. What is your gender? 1. Male [] 2. Female []

3. What is your highest level of education? 1. Diploma [] 2. Higher national Diploma (HND) [] 3. Degree [] 4. Masters and above []

4. How long have you been practicing as a clinical instructor/ward manager?

1. Below 2 years ☐ 2. [3-5] ☐ 3. [6-9] ☐ 4. Above 9 years ☐

5. Have you heard any training in Nursing education/student performance appraisal/clinical skills training etc. 1. Yes [] 2. No []

If yes, which one-----

6. How often do you visit students in the clinical area during the placement?

1. Rarely [] 2. sometimes [] 3. often [] 4. Very often []

7. What would you comment about the support students receive from their respective institutions

.....

8. What challenges are faced when following up students during support supervision in labourward clinical placement? (Talk about punctuality, placement attendance, sufficiency of equipment etc)-----

9. What would you say about the hours allocated to students in labour ward clinical placement-----

10. What teaching strategies are employed when guiding students in the management of second stage of labour-----

11. What factors influence the way students perform in management of second stage of

labour?-----

APPENDIX IV: QUESTIONNAIRE ON COMPETENCE PERFORMANCE OBSERVATION CHECKLIST

Management of second stage of labour

The participant will be observed managing a mother in second stage of labour

Observed skill	Score		
	0	1	2
1.Accurately confirms second stage of labour			
2.Informs the woman that she is ready to deliver			
3.Explains to mother what will happen and her role in the delivery room			
4.Prepare all equipment for delivery			
5.Wears a mask, goggle			
6.Wash hands for a sterile procedure			
7.Cleanses the woman's perineum, pubic area and inner thighs with a soapy cleansing solution			
8.Instructs the assistant to open delivery pack			
9.Wash and dry hands with sterile towel			
10.Puts on gown and gloves for sterile procedure			
11.Once woman is in expulsive phase of 2 nd .stage encourages her to assume the position she prefers and encourages her to push			
12.Instructs the assistant to check foetal heart after every contraction, maternal pulse every 10 mins, wipes sweat from woman's face			
13.Swabs the vulva			
14.Drapes the mother			
15.Catheterizes the mother if necessary			

16.Encourages the woman to bear down with every contraction			
17.When head is crowning, flexes it			
18.Gives episiotomy on tight perineum			
19.Continues to gently support the perineum as baby's head is delivered			
20.Once baby's head is delivered, asks woman not to push			
21.Removes secretions from baby			
22Feels baby's neck for umbilical cord			
23.Waits for restitution of head and supports head using palms of hands			
24.Delivers one shoulder at a time. Moves the baby's head posteriorly to deliver the shoulder that is anterior, applies a slight downward traction			
25.Applies a slight upward traction once anterior shoulder is born			
26.Supports rest of body with one hand as it slights out			
27.Places baby on mother's abdomen, dries baby and assesses baby's breathing			
28.Notes time of birth			
29.Scores baby at one minute			
30.Clamps and cuts cord 3 to 5cms from umbilicus			
31.Shows mother her baby and lets her identify the sex			
32.Congratulates the mother			
33.Gives the assistant sterile towel to ensure baby is kept warm and skin to skin contact			
34.Palpates abdomen			
TOTAL SCORE			

Adapted from NCK Manual for clinical procedures

