

**FACTORS INFLUENCING CURRICULUM IMPLEMENTATION ON
EMERGENCY OBSTETRICS AND NEONATAL CARE FOR FAITH-BASED
DIPLOMA NURSING STUDENTS IN MERU AND THARAKA NITHI
COUNTIES**

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**A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF MEDICINE AND
HEALTH SCIENCES IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE CONFEREMENT OF DEGREE OF MASTER OF
SCIENCE IN NURSING EDUCATION AT KENYA METHODIST
UNIVERSITY.**

SEPTEMBER, 2024

DECLARATION

Student

"This research proposal is entirely my creation and has not been submitted for a degree or any other accolade at any other academic institution."

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Date 27th /9/2024

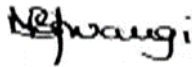
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DEDICATION

I offer this research as a tribute to the Almighty God, my creator, my unwavering support, and the source of my inspiration. I also dedicate this work to Renson Kirimi, whose constant encouragement has propelled me forward and ensured that I give my utmost to complete what I started. I express my deepest gratitude to my children, Mars (Somi) and Myles (Muuo), who have been impacted in numerous ways by this pursuit.

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ABSTRACT

Maternal and newborn healthcare is fundamental to achieving positive health outcomes in a country. The implementation of the curriculum on emergency obstetrics and neonatal care (EmONC) plays a crucial role in preparing skilled birth attendants. Highly skilled midwives have a crucial role on a global scale when it comes to efforts aimed at lowering maternal and perinatal mortality rates. However, studies suggest that incompetency among nurses in EmONC seems to be a common issue affecting countries due to poor curriculum implementation in EmONC in the preservice phase. Curriculum implementation is a complex process influenced by various factors. This study aimed to assess factors influencing curriculum implementation on emergency obstetrics and neonatal care for faith-based diploma nursing students in Meru and Tharaka Nithi County. The study looked into the nurse trainer factors, academic training institution factors, student factors, and training hospital factors. A mixed method study design was adopted for the study. A total of 216 (84.7%) responses (second year and third year diploma in nursing programs' students) were received out of a target population of 255 (100%) respondents while a total of 10 (90.9%) responses (nurse educators) were received out of a target population of 11(100%) respondents. Necessary ethical clearance was sought from the appropriate authorities prior to data collection. Data was collected through online-administered questionnaire to nursing students and nurse educators. In addition, key informant interviews were used to collect qualitative data from nurse educators. Data was cleaned coded, and entered into the scientific package for social sciences (SPSS) software vs. 27. Descriptive and inferential statistics were used to interpret findings. Quantitative data was visually presented using tables charts and graphs, while qualitative data was thematically analyzed and presented in a narrative format. Statistical significance was determined at a threshold of $p \leq 0.05$. Bivariate correlation, showed a strong positive correlation coefficient of 0.839 and 0.890 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). Further, for nursing institution the inferential statistics results, showed a strong positive correlation coefficient of 0.898 and 0.640 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). Thirdly for student factors inferential statistics results, showed a strong positive correlation coefficient of 0.859 and 0.853 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). Finally for training hospital inferential statistics results, it shows a strong positive correlation coefficient of 0.745 and 0.913 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This study established that nurse educators face a myriad of challenges such as high students' numbers, low nurse educator numbers, lack of clinical practice for the nurse educators and opportunities for continuous professional development which interfere with proper curriculum implementation. This calls for urgent need for support in student mentorship and supervision in the training hospitals in order to achieve competency in EmONC among nursing students.

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ABBREVIATIONS AND ACRONYMS

EmONC	Emergency Obstetrics and Newborn Care
ICM	International Confederation of Midwives
LMICs	Low- and Middle-income countries
MMR	Maternal Mortality Ratio
MEOWS	Maternal Early Obstetric Warning Scores
MPDSR	Maternal and Perinatal Death Surveillance and Response
RMC	Respectful Maternity Care
SBA	Skilled Birth Attendant
SBAR	Situation Background Assessment and Recommendation
SoWMY	State of the World's Midwifery Report
UNESCO	United Nations Educational, Scientific, and Cultural Organization.
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

A curriculum comprises planned order of knowledge, skills and experiences which learners are expected to demonstrate in a learning institution or in a specific course (United Nations Educational Scientific and Cultural Organization [UNESCO], 2022). A good curriculum offers suitable subject matter and activities aimed at enhancing students' understanding. It encompasses the resources, material, instructional content, lessons, and clear educational goals essential for a teacher to effectively deliver a specific course (Zamanzadeh et al., 2021). A nursing curriculum comprises the educational content (topics) and the practical learning experiences (such as clinical training and exercises) designed and executed by the faculty across different environments for a specific group of students over a defined duration, all with the aim of achieving specific educational goals (Salem et al., 2018). Curriculum implementation is the practical application of officially designated educational content, including courses, syllabi, and subjects. This process revolves around facilitating the learner's acquisition of knowledge and experience. Proper curriculum implementation hinges on the involvement of the learner, making them the pivotal element in this process. Several factors play a significant role in influencing curriculum implementation, including the characteristics of the learners, the availability of resources and facilities, the teacher's role, the school environment, cultural and ideological considerations, as well as instructional oversight and assessment (Gervedink

et al., 2013). A robust nursing curriculum is crucial for continuous professional growth, provides nurses with relevant knowledge and skills, promotes safety and ethical conduct, fosters critical thinking, and encourages lifelong learning and evidence-based practice, ultimately ensuring high-quality, midwifery education (Hassmiller & Wakefield, 2022). The third State of the World's Midwifery Report 2021 emphasized the importance of high-quality midwifery education, which is characterized by delivery of exceptional care to mothers and newborns. Additionally, the report highlighted the significance of comprehensive education for midwives, which must be aligned with international standards (United Nations Population Fund [UNPF] et al., 2021). In order for this to happen proper nursing curriculum implementation especially in emergency obstetrics and neonatal care (EmONC) is imperative

Worldwide, an approximate 295,000 maternal fatalities occurred in the year 2017. Additionally, around 2.5 million infants lost their lives in 2018, while approximately 2.6 million stillbirths transpired in 2015. It is noteworthy that the majority of these unfortunate events, comprising 99 percent of maternal deaths, 77 percent of newborn mortalities, and 98 percent of stillbirths, took place in countries classified as low- and middle-income economies (LMICs) (World Health Organization [WHO], 2019). Competent midwives play a critical role worldwide in the global initiatives to reduce this maternal and perinatal mortality rates. This can only be accomplished by ensuring widespread utilization of essential midwifery services which include skilled attendance during childbirth, EmONC, and family planning (Nove, Friberg, et al., 2021). Additionally, the highest risk of maternal death occurs during labor, birth and the immediate postpartum period due to lack

of skilled birth attendance (Metcalf & Adegoke, 2013; Nove, Friberg, et al., 2021). During this critical period, the presence of a competent skilled birth attendant (SBA) is vital as numerous interventions that are recognized to save the lives of both mothers and newborns depend on their involvement and presence (Metcalf & Adegoke, 2013).

Curriculum implementation in nursing is a complex process influenced by various factors. Effective implementation is crucial to ensuring that nursing students receive a high-quality education that prepares them for their roles as competent healthcare professionals (Zhang & Zhang, 2012). Successful curriculum implementation in nursing requires careful consideration of various factors to ensure that the curriculum is relevant, effective, and responsive to the changing healthcare environment. These factors include nurse educator, academic training institution, learner and training hospital factors (Chi et al., 2015; Zhang & Zhang, 2012). Proper nursing curriculum implementation in EmONC worldwide is impacted by nursing educator factors, ultimately influencing the quality of graduates in nursing programmes (Chi et al., 2015).

Research indicated that midwifery educators tend to have more confidence in teaching theoretical concepts than practical skills additionally academic training institution lack adequate nurse educators (Chi et al., 2015; WHO, 2019a). Nurse educators additionally, continue to use teacher-dominated instructional strategies in conventional classroom environments, disregarding advancements in teaching methodologies (WHO, 2019a). In order to enhance proper curriculum implementation in EmONC, countries need to recruit and train additional nurse educators (Chi et al., 2015).

In low- and middle-income countries (LMICs), including Kenya, proper nursing curriculum implementation in EmONC is impacted additionally by various institutional, curriculum-related and students' factors. These factors encompass inadequate instructional materials, differences in the content and span of midwifery curriculum, insufficient opportunities to use practical training sites, resulting in a disconnect between theory and practice (Salem et al., 2018; WHO, 2019a). Furthermore, training hospital and institutional factors influence proper curriculum implementation in EmONC. These factors include lack of proper synchronization and harmonization in training initiatives, and inefficient resource distribution (Chi et al., 2015; Salem et al., 2018; WHO, 2019a). To overcome these challenges, strengthening and harmonization of pre-service nursing curricula on EmONC is key, EmONC facilities need to be increased, and monitoring and clinical supervision need to be enhanced (Chi et al., 2015 ; Salem et al., 2018). Moreover, key attention need to be given to comprehensive evaluation of the nursing program in order to produce a highly competent nurse with exceptional nursing abilities in EmONC to meet the changing needs in the society (Salem et al., 2018).

Research suggested that incompetency among nurses in EmONC seems to be common issues affecting countries regionally. In a study done in Benin, Malawi, Tanzania and Uganda to assess the implementation of nursing curriculum, and how best it prepares pre-service nurses for evidenced based practice. The study revealed gaps on how knowledge and skills were taught in EmONC hence leading to incompetence in clinical practice (Pantoja et al., 2017). Similarly another study done by the Ministry of Health of Zambia, revealed EmONC competency challenges being the main factor leading to high maternal

and neonatal mortalities in the country (Mirkuzie, Sisay & Bedane, 2014). Additionally, Ethiopia faces nurse EmONC competence challenges due to inadequate preservice preparation of the nurses in EmONC. (Doe, 2023). These regional studies emphasized the urgent need to enhance proper curriculum implementation in EmONC during the pre-service phase. This will aid in ensuring nursing students are adequately prepared for their practical responsibilities in real-world settings. In return countries will be able to reduce maternal and neonatal mortality rates they are experiencing.

In Kenya, the persistent challenge of maternal and newborn fatalities remains significantly higher than the global sustainable development goals (SDG) benchmarks, which aimed for maternal mortality rates of less than 70 per 100,000 live births and newborn mortality rates of less than 12 per 1,000 live births (WHO, 2019b). Additionally, utilization of skilled health personnel during childbirth is recognized as a highly effective strategy for reducing the risks associated with maternal and perinatal morbidity and mortality. However, the prevalence of this practice among women in Kenya is relatively low, with only 61.8% of births are attended by a skilled birth attendant due to lack of competence in EmONC skills (Lang'at et al., 2019). The first Kenya Confidential Enquiry into Maternal Deaths report 2017 revealed that inadequate care was a factor in 90% of the maternal deaths analyzed (Ameh et al., 2022). Among these deaths, approximately 75% were linked to deficiencies within the healthcare workforce, primarily involving insufficient expertise and proficiency in EmONC. Notably, the most common workforce-related issues included delays in commencing treatment (32.9%), insufficient EmONC clinical competencies (28.1%), and inadequate supervision (26.9%) (Ministry of Health

[MOH], 2017). The country is dedicated to decreasing avoidable maternal and newborn fatalities by incorporating EmONC training into its Health Sector Strategic Plan (MOH, 2020).

In the last 15 years, there has been a rise in deliveries attended by skilled birth attendants in Kenya. However, research indicates that health workers continue to face a knowledge and skills gap in EmONC, which hinders their ability to offer quality care. This gap can be attributed to inadequate preparation during the preservice phase of their training due to poor curriculum implementation in EmONC (Shikuku, Mohammed, et al., 2022; Shikuku, Jebet, et al., 2022). In 2018/2019, the pre-service diploma curricula for midwifery and clinical medicine with a reproductive health specialty in Kenya underwent a comprehensive revision and enhancement. This update involved the integration of a competency-based approach to EmONC. The review process utilized the EmONC training for Skilled Health Personnel package developed by the Liverpool School of Tropical Medicine (LSTM). This crucial and sustainable approach guaranteed that graduates in pre-service midwifery and reproductive health will possess the necessary skills upon completion of their studies, enabling them to offer life-saving EmONC. As a result, the need for frequent supplementary in-service refresher training in EmONC will be minimized.(Shikuku, Tallam, et al., 2022).

Six years down the line limited studies have been done to assess the factors that influence proper curriculum implementation in EmONC. Most studies done in Kenya focus on public colleges with very few focusing on private colleges especially the faith-based colleges. This study examined the factors influencing the implementation of the

curriculum implementation in EmONC following the foregoing update in the nursing preservice curriculum. By identifying these factors, this research aimed to contribute towards informing policy on improving teaching and learning for EMONC for diploma nurse eventually contributing to the reduction of maternal and neonatal mortality rates through evidence-based practice

1.2 Problem statement

Proper implementation of a curriculum in EmONC demands a comprehensive approach with a thorough needs assessment. Qualified educators with expertise in adult learning principles are essential, and hands-on training using simulations is crucial to building practical skills. Additionally, continuing education and quality assurance are vital for keeping nurse educators up to date in EmONC. Good infrastructure and equipment complete the requirements for effective EmONC curriculum implementation, hence ensuring better maternal and neonatal healthcare outcomes (Shikuku, Tallam, et al., 2022). In Kenya, the existing Maternal Mortality Ratio (MMR) stands at 362 maternal deaths per 100,000 live births, while the stillbirth rate is 23 deaths per 1000 live births. These figures are significantly higher than the desired targets of 147 maternal deaths per 100,000 live births and 12 stillbirths per 1000 live births, respectively (WHO, 2019b). Effective EmONC is vital for reducing most of this maternal and neonatal mortality rate. Studies showed that insufficient pre-service training on EmONC, along with inadequate support supervision, are the primary obstacles to delivering high-quality maternal and neonatal care in most LMIC (Mirkuzie, Sisay & Bedane, 2014).

Despite the training of trainers on EmONC that was implemented through arrangements with the Nursing Council of Kenya since 2014, the Maternal mortality ratio is still high and Kenya's skilled attendance at birth falls significantly below international target of 90%(Nyongesa et al., 2018).In addition ,the pre-service diploma education and training curriculum is insufficient, leading to graduates having limited essential competencies needed to fulfill their roles due to lack of sufficient EmONC skills. Absence of an internship period for diploma graduates aggravates this inadequacy, as it hinders the development of crucial skills and experience in EmONC (Shikuku, Jebet, et al., 2022). In 2018, key stakeholders such as the Nursing Council of Kenya and the Kenya Medical Training Colleges conducted a comprehensive evaluation of the syllabi with the objective of updating its content and curriculum. The primary aim was to transition from predominantly theoretical training to a more practical skills-oriented approach, which incorporates EmONC. This transformation ultimately intended to ensure the education and training of competent healthcare professionals in EmONC conforming to both domestic and global benchmarks. Little information is available on challenges being faced in implementation of the same in diploma medical training colleges especially faith based. Faith-based nursing colleges in Meru and Tharaka Nithi are instrumental in producing skilled healthcare professionals, yet the successful implementation of the EmONC curriculum within these institutions may be facing significant obstacles. The current maternal mortality in Meru County is estimated at about 362 deaths per 100,000 live births, In Tharaka-Nithi County, the neonatal mortality rate is slightly lower, at 12 per 1,000 live births this statistics are below the national targets (Kenya National Bureau of Statistics, 2021).These counties face challenges such as limited access to skilled birth

attendants and maternal health facilities, which contribute to these rates (Open County, 2024). This study meticulously examined and comprehended the factors that impede or support the implementation of the curriculum on EmONC in diploma nursing programs at faith-based colleges in Meru and Tharaka Nithi County. By addressing these factors, this research aimed to contribute to the reduction of maternal and neonatal mortality rates through improved nursing education and healthcare delivery.

1.3 Purpose of the study

The study proposed to investigate the nurse educator, nursing academic training institution, student and training hospital factors that influence implementation of curriculum on EmONC for diploma nursing programs of faith-based colleges in Meru and Tharaka Nithi County. Additionally, the study made recommendation on strategies to improve curriculum implementation in EmONC among nursing colleges based on the study findings.

1.4 Objectives of the study

1.4.1 Broad objective

The study was to determine the factors influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County

1.4.2 Specific objectives

- i. To establish nurse educator factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.
- ii. To determine academic training institutional factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County
- iii. To assess the student factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.
- iv. To establish the training hospital factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

1.5 Research questions

- i. What are the nurse educator factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County?
- ii. What are the academic training institutional factors that influence curriculum implementation on EmONC for faith based diploma nursing students in Meru and Tharaka Nithi County?

- iii. What are the student factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County?
- iv. What are the training hospital factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County?

1.6 Justification of the study

In line with the WHO updated definition of Skilled Health Personnel (WHO et al, 2018), it became crucial to revise the midwifery training syllabi in Kenya. This revision aimed to ensure that healthcare providers possess the necessary competence to deliver high-quality EmONC in healthcare facilities. Adoption of a skills-and-drills approach in competency-based training for EmONC proved effective in enhancing knowledge, skills, clinical practice, and ultimately improved maternal and neonatal health outcomes. The results of a quasi-experimental study conducted in 12 Kenya Medical Training Colleges (KMTCs) demonstrated that an enhanced midwifery curriculum that incorporates training in EmONC can lead to improved knowledge and skills among midwifery students in Kenya. By adopting a competency-based approach to teaching EmONC, students can optimize their time in the hospital and expedite the learning of clinical skills through prior practice in simulation labs. This, in turn, encourages clinical staff members to allow students to perform procedures on patients earlier, fostering the students' confidence and enhancing their skills (Shikuku, Tallam, et al., 2022).

In numerous countries, the current approach to midwifery education primarily relies on a didactic curriculum, wherein students primarily acquire knowledge through traditional classroom lectures, with limited opportunities for skills practice, simulation, and role play. This approach lacks the necessary elements for fostering critical thinking, values, and the clinical decision-making abilities essential for effective midwifery practice. As a result, many nursing students graduate with limited exposure to real-life scenarios such as assisting women in labor or gaining clinical experience in areas such as antepartum care, family planning, or newborn care. Additionally, the evaluation of student progress and readiness for practice may not be effectively aligned with the intended learning outcomes and targeted clinical competencies. Most studies done in Kenya focus on public colleges with limited studies focusing on faith-based colleges. Additionally, nearly six years have passed since the inclusion of competency-based EmONC in the nursing curriculum of Kenyan medical colleges. Hence, it was necessary to evaluate factors influencing the actual implementation of this curriculum integration in nursing colleges to effectively address the any challenges being faced.

1.7 Limitations of the study

Factors within the faith-based nursing colleges may have biased the responses. Non-response bias, as thirty-nine participants did not participate in the study. Another limitation might have been the possibility of social desirability bias, where participants might have chosen to provide responses that aligned with their social expectations rather than expressing their authentic opinions. Lastly recall bias whereby participants might

have had difficulty recalling specific details about their past experiences with the curriculum.

1.8 Delimitations of the study

The researcher used census method to recruit all the study participants. Additionally, anonymity and confidentiality were assured to encourage honest responses. The researcher used both quantitative and qualitative data sources in data collection phase to increase rigor of the study. The researcher framed questions to focus on recent experiences and provided prompts or examples to help participants remember specific instances. The study concentrated on diploma-in-nursing students in faith-based colleges in Meru and Tharaka Nithi County. This investigation focused on gathering data on the nurse educator, academic training institution, student, and training hospital factors that influence the implementation of curriculum on EmONC for diploma in nursing programs of faith-based colleges in Meru and Tharaka Nithi County.

1.9 Significance of the study

The findings from the study yielded several benefits to various stakeholders, including the national government, county government, nursing students, nursing educators, and patients.

The study's findings identified areas for curriculum enhancement, this will lead to better-trained nursing professionals capable of EmONC. This improvement will lead to the reduction of maternal and neonatal mortality rates, aligning with national healthcare goals

and Sustainable Development Goals (SDGs). By addressing barriers and success factors in curriculum implementation identified, the study will influence nursing education strategies, resulting in graduates better equipped to offer timely and effective interventions, thereby enhancing skilled birth attendance.

In Meru and Tharaka Nithi County, the study will lead to enhanced healthcare services due to a better-trained nursing workforce, resulting in healthier communities and reduced healthcare costs. For nursing students, proper curriculum implementation in EmONC will prepare them better for midwifery challenges, improving their confidence and competence. Additionally nursing educators will benefit from recommendation of the study such as professional development opportunities change of teaching methods. Understanding the challenges and facilitators of implementing the curriculum in faith-based nursing colleges will enable educators and curriculum developers to refine the content and delivery methods, leading to better curricula implementation that better prepares nursing students for real EmONC situations. Lastly patients will receive care from better-trained nursing professionals, resulting in improved health outcomes, reduced complications, and potentially shorter hospital stays.

1.10 Assumptions of the study

The study operated under the assumption that participants provided honest and sincere responses regarding the issues addressed in this research. In addition, the respondents gave true information on factors influencing implementation of curriculum on EmONC;

Finally, this study operated under the premise that the accessible target population will effectively represent the target population.

1.11. Operational definition of terms

Nurse educator: Specialized nursing professional working in the three faith-based colleges in Meru and Tharaka Nithi who are involved in classroom and clinical teaching of nursing students.

Nurse educator factor: Factors relating to the nurse educators working in the three faith-based colleges in Meru and Tharaka Nithi which include expertise and experience, pedagogical skills, curriculum development, use of technology, and ongoing professional development which are all critical factors in proper curriculum implementation of EmONC in the colleges.

Nursing academic training institutional factors: Factors relating to the three faith-based colleges in Meru and Tharaka Nithi to include resources, faculty qualifications and experience, comprehensive curriculum design and implementation, clinical placements, and ongoing evaluation and feedback. They are all crucial factors in curriculum implementation in EmONC.

EmONC: Essential medical services and interventions provided to pregnant women and newborns during emergencies, complications, or life-threatening situations to reduce maternal and neonatal mortality and improve overall maternal and newborn health outcomes.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter summarizes relevant global, regional, and local literature on the subject and as per the research objectives.

Previous researches conducted globally have identified various factors linked to the implementation of EmONC in nursing programs. Globally, the World Health Organization (WHO) launched an initiative aimed at decreasing maternal and newborn mortality rates by enhancing accessibility to maternal and neonatal care through EmONC program (Ozimek & Kilpatrick, 2018), however studies showed that implementation of the EmONC program appears to be a prevalent challenge in developing nations that experience the highest rates of maternal mortality (Haider et al., 2019). International Confederation of Midwives (ICM) recommended that, nurse educators need to create curricula and develop learning activities in a manner that facilitates the effective acquisition of knowledge, skill development, and the integration of desired behaviors in each competency (International Confederation of Midwives [ICM], 2018). Moreover, research indicated that countries must adopt a pragmatic approach to tackle midwifery competency issues and expedite the attainment of Maternal Neonatal Health Sustainable Development Goals (SDGs). This approach included evaluating and updating the curricula of pre-service midwifery education and training to incorporate essential skills in EmONC. It also involved strengthening the capacity of nurse educators and institutions to

deliver the revised curriculum on EmONC and ensuring in-service training in EmONC for skilled healthcare professionals (Shikuku, Mohammed, et al., 2022; Shikuku, Jebet, et al., 2022). Additionally, efforts need to be made to retain EmONC-trained skilled personnel in maternity service delivery centers and establish a sustainable system approved by regulators for continuous professional development. This system will enable nurse educators to regularly update knowledge and skills to ensure effective practice in EmONC (Shikuku, Mohammed, et al., 2022). There is a worldwide demand to improve the quality of pre-service midwifery education through proper implementation of EmONC. The successful implementation of this integration is hindered by various challenges, including inadequate investment in educators, limited familiarity with contemporary teaching and learning approaches, insufficient practical experience for students, and inadequate resources, particularly in LMIC (Nove, Boyce, et al., 2021; Shikuku, Mohammed, et al., 2022). Institutional factors and tutor factors play a critical role in proper implementation of EmONC, a study done in India showed that institutional support is key in provision of maternal and newborn care. Moreover, development of strong tutor -learner relationship is vital in learning and mentorship. Role modeling, approachability, and open communication are vital aspects of this relationship which facilitate learning in EmONC (Morgan et al., 2018; Shikuku, Mohammed, et al., 2022).

The support and supervision of nursing staff is also a critical factor which influences the implementation of the EmONC curriculum. According to Nove, Boyce, et al. (2021), effective support and supervision of nursing staff are essential to ensure the successful implementation of the curriculum on EmONC. Inadequate support and supervision of

nursing staff can result in a lack of motivation, leading to inadequate implementation of the curriculum on EmONC. In a study conducted in Sierra Leone, it was found that various factors related to nurse educators hinder the effective implementation of EmONC among nursing students. These factors encompass limited experience among trainers, insufficient numbers of nurse trainers, high turnover rates of nurse trainers, excessive workloads, inadequate teaching time, lack of enthusiasm towards EmONC, inadequate compensation, absence of personal incentives in teaching, and high student-to-tutor ratio (Sonnie et al., 2023).

Uganda, similar to other low-income countries like Kenya, faces significant challenges in effectively implementing and expanding EmONC interventions. These challenges encompassed scarcity of skilled birth attendants, inadequate availability of essential equipment and supplies for maternal care, insufficient practical training opportunities, limited mentorship, coaching, and supervision of healthcare workers, as well as inadequate preparation during pre-service education. Furthermore, the existing training approaches are often theoretical in nature, lacking sufficient simulation and practical sessions (Kumakech et al., 2020).

Maternal and neonatal mortality rates continue to be elevated in numerous LMICs, such as Kenya (WHO, 2019b). Proper implementation of curriculum on EmONC is critical to reducing these mortality rates (Pantoja et al., 2017). In Kenya, the training of midwives as skilled healthcare professionals lacks adequate focus on competency-based EmONC, which is a vital area of national importance (Shikuku, Jebet, et al., 2022). In addition, the effective implementation of the EmONC curriculum faces other challenges, including inadequate

training, limited resources, and inadequate support for nursing staff (Pantoja et al., 2017). Enhancing the quality of training in midwifery education is recognized as a key issue at the national level in Kenya, aiming to address the high maternal and newborn mortality rates. The Kenya Health Sector Strategic Plan 2018–2023 outlined several crucial interventions to achieve this goal. These measures encompassed updating nursing curricula to address emerging issues like Universal Health Coverage (UHC), improving the training of nurse educators in pedagogical skills, and facilitating capacity building to ensure the delivery of competency-based EmONC (MOH, 2018). In 2018, the pre-service diploma midwifery curricula in the country underwent a thorough revision and update to incorporate the competency-based EmONC curriculum. Subsequently, a comprehensive capacity-building workshop was conducted nationwide for midwifery trainers of trainers. The workshop consisted of two parts, with the theoretical component delivered virtually and the skills-based component conducted face-to-face. The goal of the workshop was to enhance the trainers' abilities to effectively implement the updated curricula and subsequently share their knowledge and skills with their colleagues through a cascading approach (Shikuku, Tallam, et al., 2022). The review of the diploma in nursing curriculum aimed to support the realization of both global and national UHC goals while aligning with the new definition and competencies of midwives as SBA, as outlined by WHO and ICM in 2018. The revised curriculum additionally aimed to equip midwives with the necessary skills and knowledge to independently or collaboratively perform all critical functions of EmONC (WHO et al., 2018). Studies suggest that nurses in Kenya register suboptimal EmONC skills despite previous training in midwifery education (Kenya National Bureau of Statistics et al., 2011).

Factors that influence implementation of curriculum on Emergency Obstetrics and Neonatal care in nursing programs

The existing literature identified information relating to the nurse educator, curriculum, infrastructure, student and the academic training institution as some of the key determinants to proper implementation of the curriculum on emergency obstetrics and neonatal care. This section offers a concise summary of the research findings from previous studies pertaining to the objectives of this study

2.1 Nurse Educator Factors

EmONC is a crucial aspect of nursing education that prepares nurses to handle complications during childbirth and in newborns. However, the successful implementation of the curriculum on EmONC depends on several factors related to the nurse educator.

The shortage of competent midwifery trainers significantly impacts the caliber of midwifery program graduates, research indicates that educators tend to have more confidence in delivering theoretical classroom instruction than in clinical teaching (WHO, 2019a). Hence thorough training and preparation of nurse educators are crucial when introducing proficient midwives. Proficiency of faculty members who teach EmONC can have a significant impact on the instructional approach. Faculty members who possess

extensive experience and knowledge in these domains are more inclined to deliver thorough and comprehensive instruction (Erlandsson et al., 2018).

Midwifery trainers in LMICs encounter various difficulties, including inadequate teaching resources, disparities in midwifery curriculum content and duration, limited clinical site availability, and a disconnection from practical clinical experience (Shikuku, Mohammed, et al., 2022; WHO, 2019a). Additionally, they often rely on traditional didactic teaching methods within traditional classroom settings, despite the existence of more advanced teaching approaches (WHO, 2019a). As a consequence of these challenges, nursing students graduate with outdated practices or insufficient clinical competencies in EmONC (Filby et al., 2016).

Globally there is a no clarity in utilization of the term "midwife", making it unclear which healthcare providers have received education and training according to international midwifery standards (ICM ,2018). The SoWMY recommends that, all midwifery educators and trainers should possess the key skills and knowledge to effectively teach and facilitate learning in the field of midwifery especially EmONC (UNPF et al., 2021). Furthermore, they should have the ability to continually enhance their own professional competencies through continuous professional development (Nove, Boyce, et al., 2021). In numerous countries, particularly low- and middle-income countries, educators face challenges such as insufficient skills, limited access to essential supplies and equipment, and difficulties in accessing clinical sites for practical teaching purposes (Gavine et al., 2019 ; Shikuku, Mohammed, et al., 2022).

Quality of nursing pre-service programs in most countries is suboptimal primarily due to a scarcity of skilled midwifery trainers. The presence of competent trainers is crucial in preparing capable practitioners, leaders, and researchers in the field of nursing. Without adequately trained trainers, it becomes exceedingly challenging to produce the necessary workforce with the required competencies (WHO, 2014). Midwifery trainers should ensure comprehensive preparation of students for their clinical placements through effective classroom teaching and practical training in skills labs. Additionally, they should provide ongoing support during the students' clinical placement to ensure the successful implementation of the curriculum EmONC. Open and effective communication between educational institutes and clinical sites is essential in facilitating this process (Erlandsson et al., 2018).

In Afghanistan, a study revealed that certain midwifery trainers lack the necessary competence and experience in EmONC. Additionally, they have not received training in innovative clinical and teaching methodologies, resulting in a reliance on teacher centered teaching styles rather than interactive student-centered approaches. Moreover, some institutions have a high student-to-teacher ratio, which limits students' access to support and meaningful interaction, further hindering the effective implementation of the curriculum on EmONC (Manalai et al., 2022) . Considering this, achieving optimal teacher-student ratios necessitates increased investment by the country (Faqir et al., 2015).

In many LMICs it is frequently observed that midwifery trainers possess inadequate teaching abilities and clinical skills. This issue was evident in Ethiopia, where nursing students expressed their discontentment with the quality of preservice education provided

in the country (Yigzaw et al., 2015). Regular evaluations of the capacities of midwifery trainers and ongoing professional development are necessary to ensure their knowledge aligns with current standards and evidence-based clinical practices. This will enable them to effectively implement the curriculum on maternal and neonatal care (WHO, 2014) . The proficiency and educational background of the nursing staff play a crucial role in effectively executing the curriculum on EmONC. Insufficient training may lead to a deficit in the skills and knowledge required for the nursing staff to deliver curriculum on EmONC (Pantoja et al., 2017).

2.2 Academic Nursing training institutional factors

It is important to acknowledge that creating a curriculum is one aspect, while ensuring its effective implementation is another challenge altogether. Even with a well-designed curriculum, the availability of resources and infrastructure can pose significant obstacles to the implementation process if the planning is not adequately funded and carefully considered. Availability of resources and facilities, such as simulation labs and clinical training sites, can also impact how EmONC is taught. Access to appropriate technology, equipment, and clinical settings is essential for providing quality education in this area.

In a survey conducted by WHO in 2018-2019, opinions were gathered from individuals involved in midwifery education in LMICs across five WHO regions (excluding Europe). The survey revealed that all midwifery educators reported deficiencies in resources in classrooms, skills labs, and/or clinical settings, which hindered the effective implementation of EmONC (Nove, Boyce, et al., 2021). Moreover, within institutional

power structures, nurse educators face barriers that prevent them from pursuing further education to enhance their knowledge. Consequently, this hampers their ability to fully utilize their training potential.(WHO, 2019a). It is crucial for nursing training institutions to establish mentorship programs aimed at assisting midwifery faculty members in gaining a comprehensive understanding of the entire range of midwifery practice and effectively implementing the midwifery diploma curriculum on EmONC (Erlandsson et al., 2018).

Nursing training institutions should provide well-ventilated and well-lit classrooms with unobstructed views to facilitate an optimal learning environment for students. Furthermore, it is important to have libraries that remain open beyond official hours and during weekends, stocked with all the recommended textbooks for easy access by students. The skills lab needs to have the necessary simulation models and need also to be always accessible for individual/group practice with a full-time skills lab manager in order to facilitate proper curriculum implementation on emergency obstetrics and neonatal care (Manalai et al., 2022).

Accreditation requirements from governing bodies can influence how emergency obstetrics and neonatal care is taught in nursing schools. Nursing schools must meet the standards set forth by the accrediting bodies to maintain their accreditation (WHO, 2019a).

2.3 Curriculum-based factors

The curriculum design of nursing schools can impact how EmONC.is taught. The extent to which these topics are covered, the sequence in which they are taught, and the depth of the content can all be influenced by curriculum design. It is imperative that in developing

nursing syllabi and curricula, stakeholders consider the probable challenges in order to prepare graduates to meet these challenges. Curriculums need to be revised to incorporate new developments in healthcare field such as competency-based EmONC.

Inadequate curricula and a shortage of skilled nursing trainers are significant factors that impact the competency of graduates from midwifery programs (Shikuku, Jebet, et al., 2022). WHO recommends that nursing curriculum should be grounded on national standards adapted from international standards (WHO, 2019a). Globally, it is important to develop nursing training curricula that integrate interdisciplinary modules to foster collaboration, enhance comprehension of distinct and shared skills, promote teamwork, emphasize preparedness and response during pandemics and emergencies (including in vulnerable and humanitarian contexts), and prioritize the principles of providing respectful care (Nove, Boyce, et al., 2021). The nursing curriculum in northern Nigeria does not conform to the international standards established by the ICM for Midwifery Education and the essential competencies needed for midwifery practice (Adegoke et al., 2013).

ICM guidelines propose that the nursing curriculum should encompass essential elements of theory and practice, with a minimum allocation of 40% for theoretical instruction and a minimum of 50% for practical training in clinical areas. This ensures the effective implementation of the curriculum, specifically in the context of EmONC. Furthermore a study done in Canada on simulation-based obstetrics curriculum on nursing students' knowledge and confidence in managing obstetric emergencies revealed that the curriculum is effective in improving students' knowledge and confidence in learning

(Sanders & Wilson, 2015). Collaboration among midwifery trainers is essential for enhancing skills lab sessions with nursing students and effectively delivering the curriculum on EmONC. Trainers should also motivate nursing students to utilize instructional resources provided in the EmONC curriculum to enhance their learning experience. Furthermore, implementing rotation plans at clinical sites is crucial to ensure the successful implementation of the curriculum (Erlandsson et al., 2018b).

In 2018, the Nursing Council of Kenya undertook a comprehensive revision and update of the curriculum for Kenya registered community health nursing (Basic). The updated curriculum integrated various significant components, including the delivery of respectful maternity care (RMC), inclusion of EmONC skills, the adoption of effective clinical handover and care communication through the situation background assessment and recommendation (SBAR) approach, and the implementation of the WHO surgical safety checklist to enhance safety and teamwork in operating theaters and minimize surgical-related fatalities. Additionally, the curriculum included the introduction of maternal early obstetric warning scores (MEOWS) charts, maternal and perinatal death surveillance and response (MPDSR) concepts. Furthermore, the revisions also encompassed improvements in assessing student performance and delivering constructive feedback, refining academic writing skills, cultivating critical thinking and evaluation abilities, enhancing presentation skills, implementing flipped classroom teaching methods, and encouraging peer learning and support within the learning process in order to facilitate proper curriculum implementation in EmONC (Shikuku, Tallam, et al., 2022). Nurse educators should

prioritize and focus on enhancing skills development and ensuring the retention of knowledge in the field of EmONC (Gitonga, 2016).

2.4 Training hospital factors

There is a growing demand to enhance the learning setting for nursing students to acquire clinical skills. The clinical practice at placement sites should provide students with the opportunity to put their theoretical understanding into real-world context, enhance nursing skills and clinical judgment, and observe and integrate professional responsibilities (Gemuhay et al., 2019). Countries worldwide should establish mechanisms to ensure the availability of sufficient qualified and competent preceptors who can offer guidance and supervision during clinical placements (Nove, Friberg, et al., 2021). Research conducted in Pakistan regarding hospital-related factors influencing the implementation of EmONC highlighted that inadequate teamwork, conflicts and lack of proper communication are significant social challenges to effective implementation of EmONC within training hospitals. The study also identified several organizational-level obstacles, including job insecurity, absence of an organizational culture that supports EmONC, challenges related to human resource deployment, and ambiguity regarding roles and responsibilities. Furthermore, major system-level barriers were identified, such as inadequate target management, limited availability of resources, requirements related to house job assignments, and issues associated with dual practice, all of which hinder the proper implementation of EmONC (Haider et al., 2019).

Training hospitals, which are typically separate entities from the schools, are not fully accountable for providing an adequate amount of clinical training opportunities for students. These training hospitals encounter various challenges, including the presence of multiple students competing for clinical placements, limitations in human resources, and a scarcity of qualified preceptors to supervise and guide students (Smith et al., 2008). The overcrowding of midwifery students seeking clinical practice opportunities at a single healthcare facility poses challenges in providing them with sufficient exposure to a diverse case-load necessary for effective learning in EmONC. It is essential for training institutions to recognize their responsibility in ensuring that their midwifery students receive high-quality clinical practice opportunities that foster competency building (Gavine et al., 2019). Additionally, training institutions need to ensure continuous support supervision of students during their clinical placements in EmONC. In a study done in Sierra Leone a clear mechanism for supervising nurse educators seemed to be absent. The frequency of supervisory visits from the academic training institution lacked consistency and frequently coincided with student supervision sessions. Additionally, educators did not adhere to a standardized approach in delivering feedback or in outlining subsequent actions based on clinical observations. (Sonnie et al., 2023) The presence and consistent supervision from a nurse educator is a significant element that contributes to creating a favorable learning environment (Panda et al., 2021)

2.5 Student factors

Proper curriculum implementation facilitates the student's acquisition of knowledge and experience. It's essential to recognize that curriculum implementation hinges on the active

involvement of the student (Gervedink et al., 2013). Consequently, the student occupies a pivotal role in the curriculum implementation process (Gemuhay et al., 2019). Implementation transpires when the student gains the anticipated experiences, knowledge, skills, ideas, and attitudes, all with the goal of empowering the learner to function proficiently within a society (Gervedink et al., 2013). Proper analysis of student-related factors can lead to effective implementation of the curriculum on EmONC. Creating a student-centered approach is key in order to cater for the diverse needs and characteristics of the learners (Gervedink et al., 2013). Numerous elements shape a student's ability to learn efficiently. Typically, people possess an inherent internal drive, a longing to gain knowledge by observing others, and self-assurance in their capabilities. These factors can combine to create a motivated student who seeks learning and enhances their skills as a consequence (Bandura, 1979). Nonetheless, the process of learning and acquiring knowledge can be complex and not linear. It is influenced by the surroundings, the individual student, their preferred learning style, and their interpretation of the information they encounter (Thomas et al., 2014). In addition to this intricate nature, the culture of the workplace, individual emotional responsibilities, and a dearth of both personal and educational support can significantly influence a student's learning process. Among the various factors that contribute to a student's self-assurance and proficiency, a mentor possessing attributes that beneficially affect the student's learning journey holds a crucial position in their growth (Dewar et al., 2020). Nurse educators attributes and characteristics can affect how student learn in class and clinical setting (Panda et al., 2021).

A supportive learning environment, encompassing both faculty and peers, is crucial for successful curriculum implementation in EmONC. Nurse educator encouragement, feedback, and mentorship can positively influence students' confidence and performance in EmONC. Nurse educators need to involve their student in EmONC discussions for students to have sense of belonging. Good communication makes the student to feel as part of the team, as a result the student feels valued and supported (Nyoni et al., 2021). Effective communication and cooperation between nurse educators and students is an essential components for good clinical learning experience (Panda et al., 2021)

Student confidence can affect competency in emergency midwifery situations. The level of confidence in handling maternal newborn care skills may vary based on factors such as the institution, duration, and educational attainment. Additionally, confidence levels might diverge across various aspects of midwifery care and the extent of student exposure to clinical midwifery settings (Nyoni et al., 2021).

Student demographics also affect learning in emergency midwifery whereby younger midwifery students are more confident in most of the emergency skills in pregnancy compared to older students. Moreover, female students exhibit a higher likelihood of having confidence in maternal care skills when contrasted with their male counterparts (Hildingsson et al., 2019). Societal expectations regarding the nursing/midwifery profession pose a notable challenge. The perception of nursing and midwifery as predominantly female-oriented fields discourage male students, impacting their engagement in clinical learning experience.(Panda et al., 2021).

Availability of adequate clinical learning opportunities is crucial in mastery of EmONC competencies. In a survey done in Sierra Leon among preservice midwifery students, 202 students reported to have deficiencies in learning opportunities in certain EmONC competency areas. Specifically, 42% of students felt that their learning opportunities were lacking in assisting in the operating theater, while 32% reported inadequacies in perineal suturing, 27% in completing partographs, and 23% in estimating blood loss. On the other hand, students seemed to have adequate access to learning opportunities in medical history taking (65%), drug calculation and administration (62%), monitoring fetal and maternal well-being (56%), and fetal palpation (48%).(Sonnie et al., 2023)

Additionally, proper Feedback and assessment is another key challenge in curriculum implementation in EmONC. Midwifery students brought to light that students' progress was often measured by preceptors through logbook sign-offs. However, this approach might not have accurately gauged the level of mastery achieved. Some educational institutions raised apprehensions about the possibility of preceptors not delivering candid assessments regarding students' performance and proficiencies. Lastly, presence and consistent guidance from a clinical instructor were greatly appreciated as significant elements that contributed to creating a favorable learning environment. Student clinical supervision was also a challenges whereby observation-based student supervision by midwifery educators was frequently constrained due to issues like transportation limitations and the costs associated with fuel..(Sonnie et al., 2023)

2.6 Theoretical framework

2.6.1 Curriculum implementation theory by Gross (1971)

This research was directed by the curriculum implementation theory by Gross (1971) in his theory he emphasizes the importance of understanding the complex nature of the educational system and the various factors that impact the implementation of a curriculum. Institutions need to have the necessary resources. Teachers' capability in this case, trainers who are the individuals responsible for implementing the curriculum must stay informed about any modifications or updates in the curriculum. Additionally, institutional support and compatibility with organizational arrangement and clarity of the implementer on what is to be done are key to proper implementation. According to Gross, the implementation of a curriculum is not just a technical process, but rather a social and political one that involves multiple stakeholders and can be affected by a range of contextual factors, the same applies to proper implementation of the curriculum on EmONC. This theory was key to directing the study in that, the factors that Gross advocated are key to proper curriculum implementation on EmONC among faith-based colleges in Meru and Tharaka Nithi County.

Gross's theory highlighted several key elements that can be applied to proper curriculum implementation in emergency obstetrics and neonatal care in colleges. He highlighted the significance of considering the political and social environment in which the curriculum is being implemented. When implementing the curriculum on emergency obstetrics and neonatal care one needs to pay key attention to factors such as the prevailing educational

policies, the beliefs and values of the community, and the power dynamics within the educational system. In addition, educators in emergency obstetrics and neonatal care need to be aware of the political and social forces that may impact their ability to implement the curriculum effectively.

Secondly, clarity of innovation to the implementer. To ensure effective implementation, nurse educators, as the implementers, need to stay updated and knowledgeable about the curriculum changes made in 2018. It is crucial for them to be aware of these modifications in order to effectively incorporate them into their training practices. This can be achieved through continuous professional development.

Thirdly he talked about resources in his theory. In order to facilitate the proper implementation of the curriculum on emergency obstetrics and neonatal care, it is essential that the necessary resources are available and applicable to the curriculum's requirements. These resources include skills labs, competent trainers etc.

Additionally, Gross's theory stressed that implementation of a curriculum is a complex process that involves numerous stages and actors. This includes stages such as planning, adoption, and adaptation, as well as actors such as teachers, administrators, and policymakers. This means that midwifery educators need to be aware of the various stages of the implementation process and the different actors involved in each stage in order to effectively implement the curriculum.

Moreover, Gross's theory emphasized the importance of effective communication in curriculum implementation. This includes communication between teachers and

administrators, communication between teachers and students, and communication with parents and the wider community. This means that midwifery educators need to be skilled in communication and need to be able to effectively communicate the goals and objectives of the curriculum to various stakeholders for successful implementation.

Lastly, the theory emphasized the importance of ongoing evaluation and feedback in curriculum implementation. This involves assessing the efficacy of the curriculum in achieving its intended objectives, as well as evaluating the process of implementing the curriculum. In the context of curriculum implementation, this means that midwifery educators need to continually evaluate the implementation of the curriculum and make adjustments as necessary. Nurse educators in this research context are the implementors of the curriculum, to implement the curriculum on EmONC effectively they need to be adequately educated and trained. Academic training institution and hospitals need to provide the needed resources for proper implementation. Students' factors need to be considered to facilitate learning in EmONC. Generally, Gross's theory of curriculum implementation highlights the complexity of the implementation process and the importance of understanding the various contextual factors that can impact the success of the implementation. By taking into account these factors and using effective communication and ongoing evaluation, midwifery educators can increase the likelihood of successful implementation of the nursing curriculum on emergency obstetrics and neonatal care in faith-based nursing colleges in Meru County.

2.6.2 Diffusion of Innovation Theory by Everett Rogers.

This theory proposes that innovations are adopted and diffused within a social system according to certain characteristics, including the perceived relative advantage, compatibility, complexity, trialability, and observability of the innovation. These factors influence the rate and extent of adoption of innovation within the social system.

In the case of this research, the implementation of curriculum on emergency obstetrics and neonatal care in diploma nursing programs of faith-based colleges was considered as an innovation. The theory was used to identify and analyze the factors that influence the adoption and implementation of the curriculum by the nursing colleges, as well as the factors that affect the diffusion of the innovation within the larger healthcare system in Meru and Tharaka Nithi County

Nurse educators were considered the adopters who are crucial in implementing the EmONC curriculum. The theory was to use to understand the different categories of nurse educators based on their readiness to adopt the curriculum, ranging from innovators to laggards. Additionally, the communication channels through which information on EmONC is disseminated to nurse educators. Nursing training institutions formed the social system in which the adoption and implementation of the curriculum on EmONC occur. The theory helped in understanding the dynamics of this social system and how it affects the implementation process.

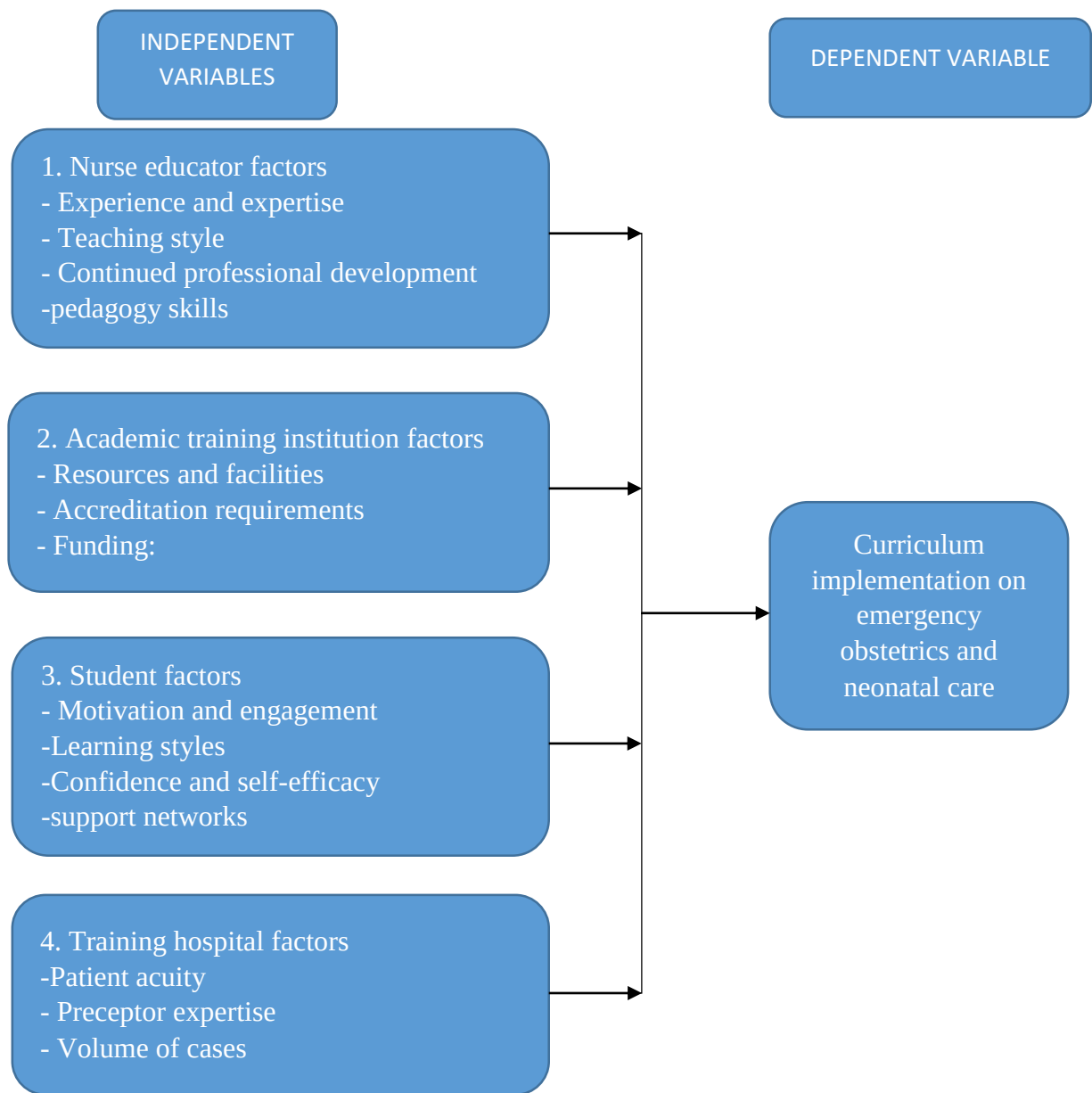
Nurse educators need to analyze how students' learning preferences and styles influence their implementation of the curriculum. Tailoring the curriculum to accommodate various

learning styles can enhance learning in EmONC. The training hospitals form part of the social system within which the EmONC curriculum implementation occurs. The theory helped in understanding the role of training hospitals in the implementation process and their influence on faculty and student acceptance. Generally, the Diffusion of Innovation Theory provided a structured approach to investigate the factors that can facilitate or hinder the implementation of the curriculum, and provide a framework for developing strategies that can enhance the implementation of the curriculum in nursing programs of faith-based colleges in Meru and Tharaka Nithi County.

2.7 Conceptual framework

Figure 2.1

Conceptual framework illustrating relationship among variables



This conceptual framework provided a comprehensive approach to understanding the factors that influence successful implementation of curriculum on EmONC in diploma nursing students of faith-based colleges in Meru and Tharaka Nithi County. The framework guided the researcher in data collection, analysis, and interpretation. According to the framework, several factors influence proper curriculum implementation in EmONC

this include nurse educator, training institution, student and training hospital factors. Nurse educator factors such as knowledge and familiarity with EmONC content, proper training and professional development plus role clarity, influence nurse educators' roles and responsibilities in the implementation process. Secondly nursing academic training institution factors such as leadership support from college administrators and management, culture and availability of resources influence curriculum implementation in EmONC. Students' factors also play a critical role in EmONC curriculum implementation these factors include student motivation to learn and active engagement with the curriculum content which greatly influences understanding and retention of EmONC skills. Motivated students are more likely to actively participate in hands-on training and seek opportunities to practice their skills. Different students have varying learning preferences, such as visual, auditory, or kinesthetic. Implementing nursing curriculum to accommodate diverse learning styles can enhance comprehension and skills acquisition in EmONC. Students with varying levels of prior knowledge and clinical experience may progress through the curriculum differently, acknowledging and building upon their existing skills can optimize the learning process. Lastly, training hospitals need to provide quality clinical facilities to support EmONC training and practice. Additionally, training hospitals need to have collaborative partnerships with nursing colleges to enhance curriculum implementation in EmONC.

CHAPTER THREE

METHODS AND MATERIALS

3.1 Introduction

In this chapter, the research methodology employed to conduct the study is outlined. It encompasses research design, variables under investigation, study area, target population, and study population. The techniques, methods and tools for data collection are also discussed. Furthermore, data analysis procedures and ethical issues associated with the study are described.

3.2 Research design

A mixed method design was used in investigating factors affecting implementation of the curriculum on EmONC in faith-based nursing students in Meru County and Tharaka Nithi County. This design enabled the researcher to determine the current factors influencing curriculum implementation in EmONC. By using both quantitative and qualitative approaches in the study the researcher was able to capture both quantitative and qualitative data, providing in-depth understanding of the factors influencing curriculum implementation on EmONC, facilitating evidence-based recommendations from the study.

3.3 Study area

The research was conducted at Methodist College of Health Sciences, Consolata Nkubu School of Nursing and PCEA Chogoria Hospital Clive Irvine College of Health sciences. The three were purposely selected in that they are the only faith-based nursing colleges in Meru and Tharaka Nithi County.

Methodist College of health sciences is managed by the greater Maua Methodist Hospital and is owned by the Methodist Church of Kenya. The College is situated in Maua town Igembe sub-county; it is approximately 60 km from Meru town and 350 km from Nairobi. The college currently has 153 nursing students.

Consolata School of nursing is managed by the greater Consolata Hospital Nkubu and is owned by the Catholic Diocese of Meru. The school is located in Nkubu town which is in Meru South Sub County; it is approximately 250 km from Nairobi. The college currently has a total of 205 student's nurses.

PCEA Chogoria Hospital Clive Irvine College of Health sciences is owned by PCEA Chogoria hospital. The college is located in the Eastern slopes of Mount Kenya, Tharaka Nithi County within PCEA Chogoria Hospital. It is approximately 200 km from Nairobi. The college has currently a total of 189 nursing students.

3.4 Target population

The study targeted 11 nurse educators involved in curriculum implementation in EmONC, plus 255 second- and third-year nursing students in faith-based colleges in Meru and Tharaka Nithi County.

3.5 Study population

The study population was 216 second year and third year diploma in nursing programs' students of faith-based colleges in Meru and Tharaka Nithi County. Additionally, 10 nurse educators who are involved in implementation of the curriculum on EmONC who responded to the online questionnaire during the period of data collection.

3.6 Inclusion criteria

Nursing students enrolled in diploma in nursing programs in faith-based colleges in Meru and Tharaka Nithi County in second or third year of their training who were willing to be included in the study and gave informed consent were included in the study. These students were selected because they had covered EmONC content in classroom and clinical settings hence gave valid data concerning curriculum implementation in EmONC.

Nurse educators involved in the implementation of the curriculum on EmONC in diploma in nursing programs in faith-based colleges in Meru and Tharaka Nithi County who are willing to be included in the study and gave an informed consent. The researcher decided to select only midwifery educators actively teaching EmONC content in order to get valid

data. Due to the small numbers of the nurse educators the researcher recruited all the nurse educators from the respective nursing colleges.

3.7 Exclusion criteria

Nurse educators involved in the implementation of the curriculum on EmONC in diploma in nursing programs in faith-based colleges in Meru County who are not willing to participate in the study or did not give informed consent were excluded.

Nursing students in second and third year of training who declined to provide informed consent and did not respond to the online questionnaire were excluded as study participants.

3.8 Pre-testing of the tools

Before being used in the study, the research tool was pretested with 10% of the study population. Pretesting took place in Sister Leonella Consolata Medical College in Nyeri which is a Faith-Based institution under the Catholic Archdiocese of Nyeri. It was pretested on 14 nursing students and 4 nurse educators who had the same characteristics as the study population. This was done to ensure validity and reliability of the data collection tool. Upon pretesting the tool respondents were asked their view of the tool and their insights were used to amend the tool accordingly.

3.9 Sampling technique

Due to the small sample size of the nurse educators census method was employed to select all the nurse educators involved in curriculum implementation in EmONC from the three faith-based colleges in Meru and Tharaka Nithi County. Six nurse educators 6 (100%) were selected from Methodist College of Health Sciences, three nurse educators from Consolata Nkubu School of Nursing 3(100%) and 2 (100%) from PCEA Chogoria Hospital Clive Irvine College of Health sciences. Methodist college of health sciences had the highest number of nurse educators this is because in the institution has no specific tutors designated to a specific department. Hence the six were teaching elements of EmONC in classroom and clinical settings in the college. On the other hand, in Consolata Nkubu School of Nursing and PCEA Chogoria had specific nurse educators designated to the midwifery department hence the low numbers of educators in the study. The researcher additionally used census method to select second and third year from the three colleges this was done to increase accuracy by avoiding chances of sampling error. This was done with the aid of class lists from head of departments from the respective colleges which were used in creating the three whatsapp group utilized during the data collection period.

3.9.1 Sample size determination

3.9.2 Sampling procedure and techniques

The current total second- and third-year diploma nursing students in Methodist College of Health Sciences, Consolata Nkubu School of Nursing, PCEA Chogoria Hospital Clive Irvine College of Health sciences is 63 ,120 and 72 respectively. Consolata Nkubu had

the highest number of students this is because the college currently offers diploma in nursing as the only program in the college unlike the other two colleges which additionally train other healthcare professionals. The census method additionally was used to ensure accuracy of data and to get a complete exhaustive picture of the entire population hence increasing rigor of the study.

Table 3.1

Sample frame

College	Total 2nd Year Students	Total 3rd Year Students
Methodist college of health sciences	42	21
Consolata Nkubu school of nursing	69	51
Pcea Chogoria hospital Clive Irvine college of health sciences.	37	35
Total students	148	107
Grand total of all students	255	

3.10 Operational definition of variables

3.10.1 Dependent variable

Dependent variable was successful implementation of the curriculum on EmONC in diploma in nursing programs of faith-based colleges in Meru and Tharaka Nithi County. This variable was assessed based on the following indicators: Availability of resources such as textbooks, equipment, and facilities needed for teaching and learning EmONC; Faculty members' training and competence in teaching EmONC; Student engagement and

participation in learning EmONC; Support from management and administration for implementing the curriculum on EmONC.

3.10.2 Independent variables

The independent variable in this study were the factors which influence successful implementation of the curriculum on emergency obstetrics and neonatal care in diploma in nursing programs of faith-based colleges in Meru and Tharaka Nithi County. These factors include nurse educator factors, student factors, academic training institutional factors and training hospital factors. This variable was assessed through the following methods: Structured-online administered questionnaires and key informant interviews to nurse educators to identify their perceptions and experiences regarding the factors which influence implementation of the curriculum on EmONC. Additionally, online - administered questionnaires were given to students to identify their views on the availability of resources and their engagement in learning EmONC from their respective institutions.

3.11 Data collection instrument

The initial plan was to collect data using the actual questionnaires but upon visiting the different colleges it was impossible to do that because most students were in their clinical placements in different hospitals far from each other. Hence the questionnaire was changed into online google form to be able to reach a higher number of students. Prior to data collection the researcher created three WhatsApp group for the students with help from the heads of department of the different colleges in the three colleges. The researcher

clearly stated the purpose of the survey and its importance in the WhatsApp groups. Additionally, recipients were encouraging to participate by highlighting the impact of their responses. A direct link to the online survey was shared in the different groups. Data was then collected using online -administered, fully structured questionnaires to students and nurse educators via google forms. In addition, key informant interview schedules to nurse educators involved in curriculum implementation in EmONC were done after the researcher was done with quantitative data collection. The key informant interviews were done at the time convenient for the respondent. Open-ended questions in the key informant interviews gathered qualitative data, while the structured items in the nursing students' and nurse educators questionnaires collected quantitative data for the study.

3.12 Validity and reliability of the tool

To ensure content and face validity of the tool for data collection, a detailed literature was used to enrich the findings done to make sure that the questions are as per the research objectives. Further, the final draft was subjected to peer and expert review from the research supervisors and the arising suggestions incorporated into the questionnaires. The questionnaires were reviewed to ensure that the items covered the entire range of the construct to be measured by each research objective in the study.

Reliability of the questionnaire was determined using Cronbach's alpha to ensure internal consistency of the questionnaire whereby the average correlation between all possible pairs of items in the questionnaire was calculated as per the research objectives. Cronbach alpha values for all the variables; Nurse educators' factors, Academic training institution

factors, Training hospital factors and curriculum implementation were greater than 0.7. Hence the researcher concluded that there better internal consistency of the tool.

3.13 Data Collection process

Data was collected from the students and nurse educators using an online-administered questionnaire via google form containing, primarily closed-ended questions and Likert scale items on the different study variables as per the research objectives. Prior to the actual study, the questionnaire was pretested to assess its validity and reliability in Sr Leonella Medical Training College Mathari Nyeri. The participants were given relevant information on the study's purpose and measures taken to protect their privacy. The researcher wrote a statement indicating agreement to the terms of the consent form, "*By submitting this form, I confirm that I have read and understood the information provided in the informed consent form and agree to participate in the study.*" This question was set as required to ensure participants acknowledge their agreement. Confidentiality and privacy for quantitative data was upheld by customizing the response settings to ensure that respondents cannot view other respondents' answers after submitting the form.

In addition to the online questionnaire, key informant interviews schedule was used to collect data from nurse educators. The interview schedule involved arranging online meetings with key informants, explaining the interview's purpose and confirming suitable time with the researcher. The interviews took an estimate of 15-20 minutes. Participants were asked for permission to record using a mobile device prior to commencing the

interview. Participants received gratitude for their participation, and recorded data was securely stored in a mobile phone for qualitative analysis.

To ensure anonymity in quantitative data collection the google email collection was disabled, questions that request personally identifiable information were excluded to safeguard privacy of respondents. Furthermore, the participants were informed that their participation in the study is voluntary and that there are no anticipated physical or psychological risks associated with it. Data was collected from 28th February 2024 to 12th April 2024. Hence the data collection period took one and half months. To enhance the response rate, the researcher clearly communicated the purpose and importance of the survey to the potential respondents via WhatsApp. Google form was short and concise. The researcher used a mobile-friendly design to ensure that the Google form is optimized for mobile devices, as many respondents preferred to complete surveys on smartphones. Respondents who are not ready or available initially, a follow-up contact was made three times a week via the class representatives of the different classes and heads of departments in order to get a desirable response rate.

To ensure accuracy and completeness, the researcher made all questions mandatory to ensure that respondents provide answers to all critical aspects of the survey before submissions. This helped prevent incomplete submissions and ensured that data was collected for every relevant variable. Secondly questions were phrased in an unbiased and neutral manner to avoid influencing respondents' answers that may have skewed the results or introduced bias into the data. Lastly the researcher customized the response settings to ensure that each respondent could only respond once. Upon completion of data

collection, the researcher thanked the respondents for their participation after which the three WhatsApp groups were dissolved by removing each member, exiting and deleting the three groups.

3.14 Data Analysis and Presentation

The raw data was then cleaned for accuracy in preparation for data analysis. Data analysis employed descriptive statistics, including frequencies and percentages, to provide a summary of the questionnaire responses. Qualitative data was thematically analyzed and presented in prose form while quantitative data was presented using tables, charts and graphs. Additionally, Pearson correlation was utilized to examine the relationship between the dependent variable (implementation of the curriculum on emergency obstetrics and neonatal care) and the independent variables (factors influencing curriculum implementation).

3.15 Ethical Considerations

Prior to commencing the study, permission was requested from Kenya Methodist University Scientific Ethics and Research Committee {(KEMU SERC (Ref No: KeMU/SERC/MSN/01/2024))}, National Commission for Science, Technology and Innovation {NACOSTI (Ref No: 105486)}, as well as the administrations of Nkubu School of Nursing, Methodist College of Health Sciences and PCEA Chogoria Hospital Clive Irvine College of Health sciences. The potential participants were provided with comprehensive information regarding the study's objectives, the absence of any associated risks, and the measures taken to ensure the protection of their privacy. Informed consent

and anonymity were adhered to. Furthermore, after the data collection process was complete, the gathered data was stored securely in google drive awaiting data analysis.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

In this chapter, the results of both the quantitative and qualitative analyses are presented to provide a comprehensive understanding of factors influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. The chapter starts with the quantitative findings, including descriptive statistics and the results of bivariate correlation analysis. This is followed by the qualitative findings derived from key informant interviews on the factors influencing curriculum implementation on EmONC. By integrating these findings, the chapter aimed to offer a nuanced view of the factors influencing curriculum implementation on EmONC.

4.1 Response rate

A total of 216 (84.7%) responses (second year and third year diploma in nursing programs' students) were received out of a target population of 255 (100%) responses while a total of 10 (90.9%) responses (nurse educators) were received out of a target population of 11 (100%) responses. This was considered good for analysis because according to Mugenda and Mugenda (2012) response rate of 50% is adequate for analysis and reporting, response rate of 60% is generally good while a response rate of above 70% is excellent. Based on these recommendations therefore, it implied that the response rate for this study was

adequate and increased confidence for generalization and it formed the basis of the analysis and the results contained in this chapter.

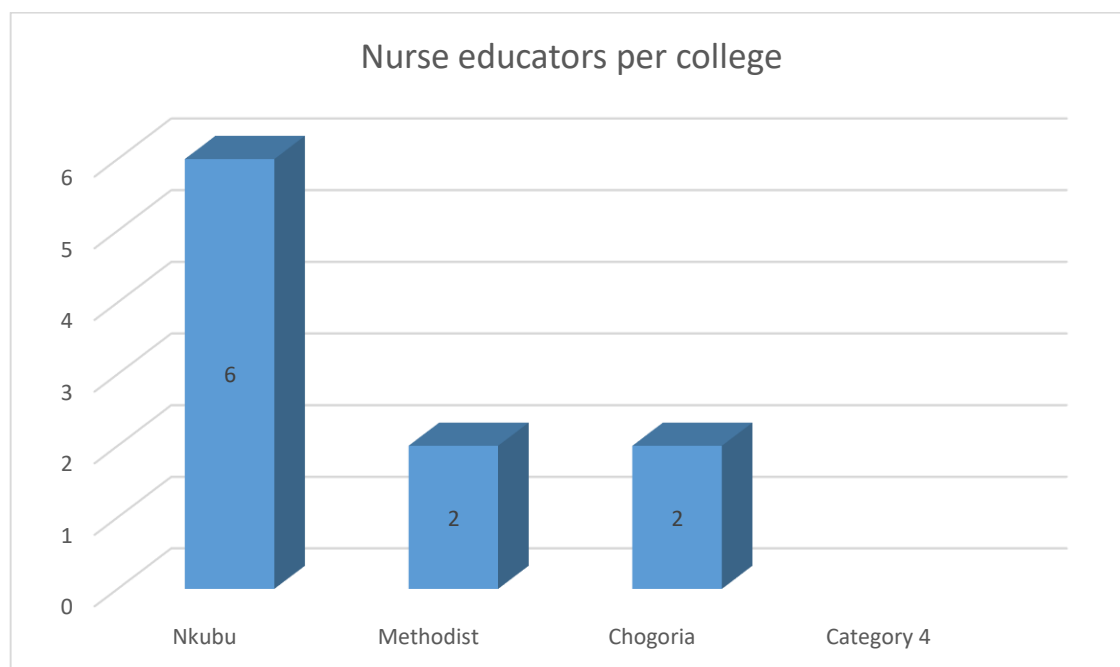
4.2 Demographic characteristics of Nurse educators

4.2.1 Number of nurse educators per college

The study sought to determine the respondents' characteristics such as gender, age, workplace, experience, training and level of education for nurse educators. Results in figure 4.1 indicate that majority of the nurse educators 6 (60%) are training in Methodist college while those who are training in Consolata Nkubu 2 (20%) and PCEA Chogoria were 2 (20%).

Figure 4.1

Nurse educators per college



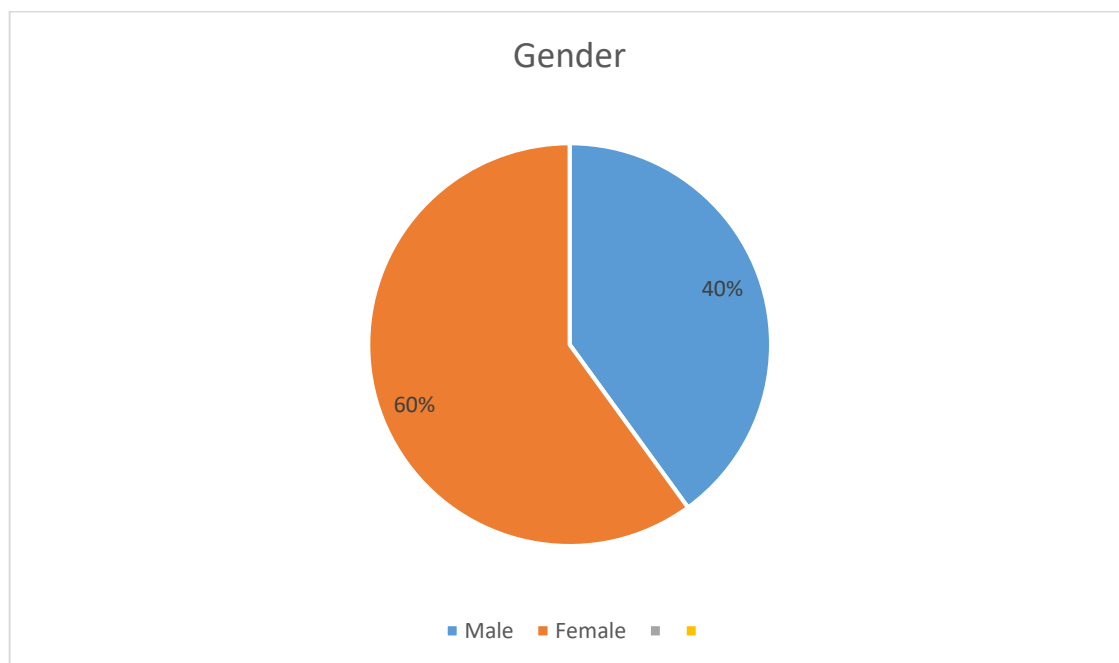
Methodist college of health sciences had the highest number of nurse educators this is because the institution has no specific tutors designated to a specific department. Hence the six were teaching elements of EmONC in classroom and clinical settings in the college. On the other hand, in Consolata Nkubu School of Nursing and PCEA Chogoria they had specific nurse educators designated to the midwifery department hence the low numbers of nurse educators in the study.

4.2.2 Gender of nurse educators

The study results in figure 4.2 indicate that 4 (40%) of the nurse educators were male while female accounted for 6 (60%).

Figure 4.2

Gender of nurse educators



This gender distribution implies that there were more female nurse educators teaching in the faith-based colleges in Meru and Tharaka Nithi County. The reason behind this could be because nursing is female oriented profession hence the high number of female nurse educators in the three training institutions.

4.2.3 Age of Nurse Educators

The study findings further showed that majority of the respondents 6 (60%) was between 20-30 years of age. The results further indicate that all of the respondents' highest level of education was bachelor degree which accounted by 10 (100%). This meant that all nurse educators were qualified to train diploma nurses in that the minimum qualification for training in diploma colleges is a degree in nursing or a higher diploma in a nursing related field.

4.2.4 Nurse educator teaching experience and training on EmONC

The study found out that majority 6 (60%) of the respondents had worked in these colleges for years between 1-5 years. On the question of whether the respondents are EmONC trained or not, the study results show that majority 8 (80%) of the respondents had not been trained on EmONC. This showed that EmONC trainings are needed to ensure nurse educators are acquainted with the current practices. These findings aligned with findings of Shikuku, Bar-Zeev, et al. (2024) that showed that midwifery educators in many developing countries lack essential EmONC competencies due to lack of opportunities for continuous professional development. The respondents who had been trained on EmONC; this study found out that these educators had been trained 1-5 years ago hence the need

for refresher trainings. This concurred with findings of Erlandsson et al. (2018) who noted that thorough training and preparation of nurse educators are crucial when introducing proficient midwives in EmONC.

Table 4.1

Nurse Educator characteristics

Demographic information for Nurse Educators		Frequency (n)	Percentage (%)
Age	20 – 30 years	6	60
	31 – 40 years	4	40
	41 – 50 years	0	0
	Over 50 years	0	0
Level of Education	Diploma	0	0
	Higher Diploma	0	0
	Bachelors	10	100
	Masters	0	0
	PhD	0	0
Teaching Experience	Less than 1 year	2	20
	1-5 years	6	60
	6-10 years	2	20
	11-15 years	0	0
EmONC trained?	Yes	2	20
	No	8	80
EmONC training period	Less than 1 years	0	0
	1-5 years	2	20
	6-10 years	0	0

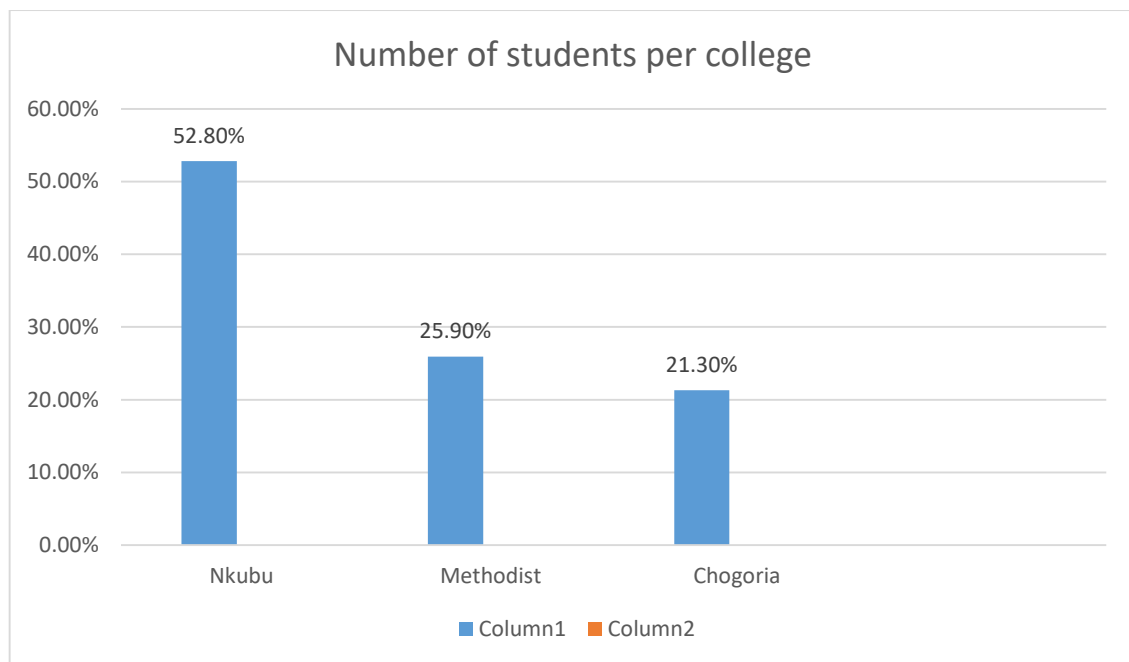
4.3 Demographics of nursing students

4.3.1 Number of students per college

The results in figure 4.3 indicate that majority of the respondents 114 (52.8%) are in Consolata Nkubu followed by 56 (25.9%) is in Methodist college while those who are in PCEA Chogoria is 46 (21.3%).

Figure 4.3

Number of students per college



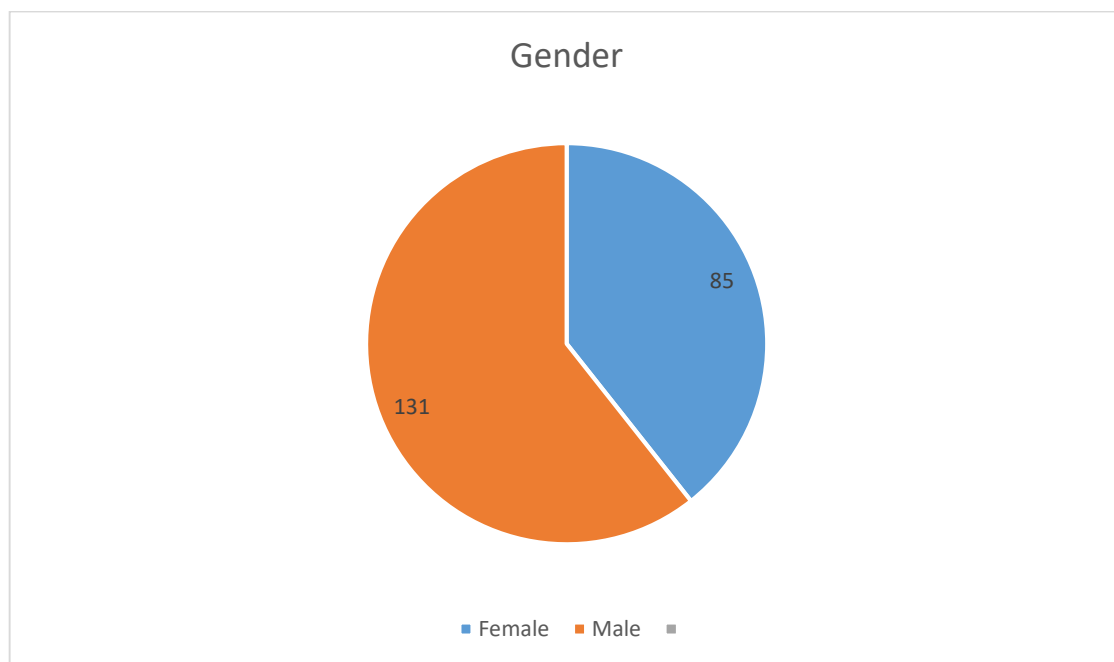
Consolata Nkubu had the highest number of students this could have been because the college currently offers diploma in nursing as the only program in the college unlike the other two colleges which additionally train other healthcare professionals' courses.

4.3.2 Students gender

Results in figure 4.4 show that 85 (39.4%) of the nursing students were male while female accounted for 131(60.6%).

Figure 4.4

Nursing students' gender



This gender distribution implies that there were more female nursing students for the faith-based colleges in Meru and Tharaka Nithi County. This could be because societal norms and expectations have long associated nursing with femininity hence encouraging more women to pursue nursing. A study by Panda et al. (2021) echoed this whereby in his study he found out that the perception of nursing and midwifery as predominantly female-oriented fields discourage male students from joining the profession.

4.3.3 Students' age distribution and year of study

The results in table 4.2 show that majority of the respondents 186 (86.1%) were between 18-24 years. Studies have shown that age influences learning. Generally young students have fewer physical limitations and quicker cognitive processing, which can enhance their ability to perform demanding tasks and absorb new information unlike the older students. A study by Hildingsson et al. (2019) showed younger midwifery students are more confident in most of the emergency skills in pregnancy compared to older students. Regarding current year of study and current semester, the study results in table 2 indicated that majority 112(51.9%) of the respondents and that 124 (57.4%) of both second- and third-year nursing students in faith-based colleges in Meru and Tharaka Nithi County were in their first semester.

Table 4.2

Respondents' characteristics for Nursing Students

Demographic information for Nurse Students		Frequency (N)	Percentage (%)
Age	18 – 24 years	186	86.1
	25 – 31 years	26	12.0
	Over 31 years	4	1.9
Current Year of study	Second year	112	51.9
	Third year	104	48.1
Current Semester	First semester	124	57.4
	Second semester	92	42.6

4.4 Extent of factors influencing curriculum implementation on EmONC

The investigation of the extent of nurse educators' factors, academic training institution factors, students' factors and training hospital factors influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County was done.

4.4.1 Nurse Educators' factors

To establish the extent of nurse educator factors in influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, both nurse educators and nursing students were separately requested to respond on 14 and 12 attributes respectively of Nurse Educators' factors of the faith-based colleges in Meru and Tharaka Nithi County they represented. Table 4.3 and 4.4 presents these analyzed results of the extent educators' factors in influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

On the question on whether the educators are well trained in EmONC analyzed data showed mean of 3.2000 and standard deviation of 0.63246. This study showed that nurse educators had mixed feelings concerning their readiness to teach EmONC. On the question on whether the educators had adequate experience to teach EmONC majority showed high degree of agreement and consistency level whereby the mean of the responses was 3.7000 and standard deviation of 0.82327 respectively. This implied that the educators felt they had the necessary knowledge and skills to teach EmONC. Research studies show that faculty members who possess extensive experience and knowledge in

EmONC are more inclined to deliver thorough and comprehensive instruction (Erlandsson et al., 2018).

Table 4.3

Nurse Educator factors from nurse educators

Nurse Educators' factors for Nurse Educators	n	Mean	Std. Deviation
I am well trained in teaching EmONC	10	3.2000	.63246
I do not have adequate experience when it comes to teaching EmONC to nursing students	10	3.7000	.82327
I have required knowledge for teaching EmONC to nursing students	10	3.6000	.84327
I am skilled, when it comes to teaching EmONC to nursing students	10	3.6000	.84327
I do not incorporate latest research in teaching EmONC	10	2.3000	1.05935
I sometimes access resources that for effective teaching of EmONC	10	3.4000	1.17379
I have challenges in assessing nursing students' mastery of EmONC concepts.	10	2.9000	1.10050
I am effective in assessing students' mastery of EmONC skills	10	3.9000	.56765
I apply innovative teaching methods for EmONC	10	3.8000	.63246
I have opportunities for continuous professional development on teaching EmONC to nursing students	10	2.5000	.97183
I have developed personal strategies to ensure quality in the teaching of EmONC across the nursing program	10	4.1000	.56765
I have opportunities for collaboration with other healthcare institutions or organizations to improve the teaching of EmONC to nursing students	10	2.7000	1.25167
My role is not clear in terms of curriculum implementation in EmONC	10	2.8000	.63246
I have not been trained on pedagogy skills for EmONC	10	3.1000	1.28668
Overall average	10	3.2571	0.9528

Concerning the question on the access for resources needed for teaching nurse educators showed mixed feelings and high level of disagreement among respondents whereby the mean was 3.4000 and standard deviation of 1. 17379 from the responses analyzed. These findings marry the findings by WHO (2019), which showed that nurse educators in LMICs have difficulties in access to teaching resources which affect teaching in EmONC. On the issues of professional development in EmONC nurse educators showed mixed feelings with a high level of consensus on the same. This meant that nurse educators felt that they lacked adequate opportunities for professional development in EmONC. Studies show that regular evaluations of the capacities of midwifery trainers and ongoing professional development are necessary to ensure their knowledge aligns with current standards and evidence-based clinical practices (WHO, 2014). Moreover, research shows that skills decline in the first 6-12 months after training (Bang et al., 2016; Yang et al., 2012). Hence regular evaluations of the capacities of midwifery trainers and ongoing professional development are imperative to ensure their knowledge aligns with current standards and evidence-based clinical practices. This will enable them to effectively implement the curriculum on maternal and neonatal care on the question on opportunities for collaboration with other healthcare facilities respondents showed mixed reactions with high level of variability from the responses received. This implied that some training institutions lack collaboration with clinical facilities that affect curriculum implementation in EmONC.

Additionally, the results in table 4.3 show that “*I have developed personal strategies to ensure quality in the teaching of EmONC across the nursing program*” is the attribute of

nurse educators' factors that received the highest mean [Mean=4.100] in respect of nurse educators. This showed that nurse educators had come up with their own individual strategies to ensure quality in curriculum implementation irrespective of the challenges beings experienced in the training institutions.

Table 4.4

Nurse educator factors from nursing students

Nurse Educators' factors for Nursing Students	n	Mean	Std. Deviation
The faculty members have the necessary knowledge to teach EmONC effectively.	216	1.9815	1.67044
The faculty members have the necessary skills to teach EmONC effectively.	216	4.0741	.73711
I receive adequate mentorship when learning about EmONC.	216	3.6204	.59794
I do not receive adequate supervision when learning EmONC.	216	2.4907	1.17331
My nursing program incorporates learning of EmONC for all students.	216	4.0139	.68525
Faculty members stay updated with the latest on EmONC.	216	3.9907	.70209
The teaching methods used facilitate my understanding of EmONC.	216	3.9954	.71201
The teaching methods used by the trainers do not facilitate my application of EmONC skills	216	2.8565	1.18626
The nurse educators in the college provide sufficient guidance in applying EmONC knowledge in clinical practice.	216	3.9583	.79130
The assessment methods used by the trainers in the EmONC curriculum do effectively evaluate my skills in this field.	216	4.0231	.79792
The faculty members in the college provide timely feedback on my performance in EmONC	216	3.9907	.74078
The faculty members in the college do not provide constructive feedback on my performance in EmONC	216	2.6620	1.27649
Overall average	216	3.4714	0.9226

The results in table 4.4 show that nursing students had a high level of disagreement on whether the faculty members have the necessary knowledge to teach EmONC effectively this was showed by a mean 1.9815 of and a standard deviation 1.67044 from the responses analyzed. Majority of the students showed high agreement level on adequacy of the mentorship and supervision they receive when learning EmONC. This showed that the students perceived supervision and mentorship as adequate to facilitate learning in EmONC. Moreover, students perceived assessment methods used by the nurse educators in the EmONC curriculum as effective in evaluating their skills in this field. Concerning feedback, the students viewed the feedback as timely but not constructive this was evidenced by a mean of 3.9907 and 2.6620 respectively. Feedback needs to be regular and aligned to the learning outcomes of the student in the clinical area (Kilminster et al 2007). Additionally, midwifery educators need to have knowledge and skills as well as good teaching and communication skills to deliver constructive feedback (Kilminster et al.,2007; Ramani & Leinster, 2008; Nyoni et al.,2021). Hence nursing educators need to improve on giving constructive feedback to students. These findings were contrary to other studies in LMICs which showed inadequate supervisory follow up for nursing students during their clinical placements (Manalai et al., 2022; Mbakaya et al., 2020; Jacob et al., 2023). The reason for this may be because students may not be able to correctly interpret the level of performance unless this is demonstrated in either the clinical setting or classroom. Moreover, students perceived assessment methods used by the nurse educators in the EmONC curriculum as effective in evaluating their skills in this field. A study by Shikuku, Bar-Zeev, et al. (2024) echoed this whereby he suggested that hospital midwives need to work together with midwifery educators in student mentorship

in clinical area to facilitate competency in EmONC. This was contrary to the findings of researches done in LMICs which report clinical mentorship and supervision as inadequate (Jacob et al., 2023; Manalai et al., 2022; Nove, Friberg, et al., 2021). These findings align with a study by Nyoni et al. (2021) who highlighted that a supportive learning environment, encompassing both faculty and peers, is crucial for successful curriculum implementation in EmONC. Additionally, he mentioned that nurse educator encouragement, feedback, and mentorship can positively influence students' confidence and performance in EmONC. Therefore, nurse educators need to involve their student in EmONC discussions for students to have sense of belonging. Good communication makes the student to feel as part of the team, as a result the student feels valued and supported.

Moreover, study findings in table 4.4 showed that *“The faculty members have the necessary skills to teach EmONC effectively”* is the attribute of nursing student’s factors that received the highest mean [Mean=4.0741] in respect of nursing students and standard deviation of 0.73711. This showed that the nursing students perceived the nurse educators as competent in terms of curriculum implementation in EmONC. This finding disagreed with findings from other studies done in LMICs which showed that midwifery educators are not well prepared for their teaching role (Bogren et al., 2022; Hyrkäs & Mowitz, 2023; Manalai et al., 2022; Jacob et al., 2023).

The results in table 4.3 and 4.4 show that majority both nurse educators and nurse students agreed that to an extent that nurse educator factors influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. These results contradict with the sentiment of Yigzaw et al. (2015) who stated that in

many LMICs it is frequently observed that midwifery trainers possess inadequate teaching abilities and clinical skills. Additionally, similar findings were evident in Ethiopia, where nursing students expressed their discontentment with the quality of pre-service education provided in the country (Yigzaw et al., 2015). Moreover, the study findings are also in agreement with the SoWMY, which recommends that, all midwifery educators and trainers should possess the key skills and knowledge to effectively teach and facilitate learning in the field of midwifery especially EmONC (UNPF et al., 2021).

4.4.2 Academic training institution factors

Secondly, to establish the extent of academic training institution factors in influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, both nurse educators and nursing students were asked at different times to respond on 7 and 13 attributes respectively of academic training institution factors of the faith-based colleges in Meru and Tharaka Nithi County they represented. Table 4.5 and 4.6 presents these analyzed results of the extent academic training institution factors is influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

The results from table 4.5 show that on the question on whether colleges provide adequate resources in the library to facilitate learning in EmONC results showed mixed reactions with a high level of variability. This was evidenced by a mean of 3.0000 and standard deviation of 1.3333. This meant that some institutions may have the resources while others lack the resources needed for curriculum implementation in EmONC. This echoed

findings in a survey by Nove, Boyce, et al. (2021), which revealed that all midwifery educators reported deficiencies in resources in classrooms, skills labs, and/or clinical settings, which hindered the effective implementation of EmONC.

Table 4.5

Academic training institution factors from nurse educators

Academic training institution factors for Nurse Educators	N	Mean	Std. Deviation
The colleges provide adequate resources in the library to facilitate learning in EmONC	10	3.0000	1.33333
The college has a well-equipped skills lab to facilitate implementation of the curriculum on EmONC	10	3.0000	1.41421
The nursing academic training institution has well-trained faculty members who can effectively teach EmONC curriculum.	10	3.1000	.99443
The nursing academic training institution provides opportunities for regular professional development opportunities for faculty members on EmONC.	10	2.4000	1.34990
The nursing academic training institution has a strong partnership with clinical facilities for clinical practice in EmONC	10	4.0000	.81650
The academic training institution ensures that the EmONC curriculum aligns with the latest Nursing Council of Kenya requirements.	10	3.9000	.87560
The academic training institution has policies that ensure quality in the teaching of EmONC across the nursing program.	10	3.5000	.84984
Overall average	10	3.2714	1.0905

On the issue of partnership with clinical facilities the results showed a high level of agreement at a mean of 4.0000 with a high level of consensus among the respondents. This shows that majority of the training institutions have strong partnership with clinical facilities where students go for EmONC placements. Lastly the results also showed that

the institutions had policies that ensure quality in the teaching of EmONC across the nursing program.

The findings from table 4.5 show that *“The nursing academic training institution has a strong partnership with clinical facilities for clinical practice in EmONC”* is the attribute of nursing academic training institution factors that received the highest mean [Mean=4.000] in respect of nurse educators. This showed that nurse educators perceived that there is good collaboration between training institutions and training hospitals which enhances proper curriculum implementation in EmONC. On the other hand, *“The nursing academic training institution provides opportunities for regular professional development opportunities for faculty members on EmONC”* that received the lowest mean [Mean=2.400] and a standard deviation of 1.34990. This showed that nurse educators felt that they lacked opportunities for continuous professional development which hindered proper curriculum implementation in EmONC.

The results in table 4.6 showed that majority students agreed to some extent that the necessary resources needed for learning are available this was showed by a mean of 3.8981 and standard deviation of 0. 66738. Students showed mixed and high level of variations on the issue of institutions ability to offer opportunities for community outreach programs in EmONC. This suggested that colleges do not offer adequate outreach opportunities in EmONC.

Table 4.6*Academic training institution factors from nursing students*

Academic training institution factors for Nursing Students	N	Mean	Std. Deviation
The resources available are sufficient for learning EmONC	216	3.8981	.66738
The college administration is supportive of the EmONC curriculum	216	3.9537	.70723
The workload constraints make it difficult to adequately learn about EmONC.	216	3.4630	.95893
Time constraints make it difficult to adequately learn about EmONC	216	3.3843	.93785
The college provides specialized training to nursing students to enhance their competency in EmONC	216	3.7407	1.04655
The college offers opportunities for students to engage in research related to EmONC	216	4.0463	.74564
The college evaluates the effectiveness of their EmONC curriculum in terms of student learning.	216	3.9722	.66763
The college does not provide opportunities for community outreach programs in EmONC.	216	2.8009	1.29837
There is effective communication between students and faculty members regarding any concerns related to the EmONC curriculum.	216	1.9815	1.67044
There is no effective collaboration between students and faculty members regarding any concerns related to the EmONC curriculum	216	4.0741	.73711
The college offers sufficient assistance to enable students to enhance their understanding in EmONC beyond their regular academic coursework.	216	3.6204	.59794
The college fosters a supportive learning environment conducive to the study of EmONC.	216	2.4907	1.17331
The practical training opportunities offered in the college adequately prepare me for handling EmONC scenarios	216	4.0139	.68525
Overall average	216	3.4954	0.9149

Concerning communication and collaboration between students and faculty the study results in table 4.6 showed that their issues with collaboration and communication in

relation to issues with curriculum implementation in EmONC, hence training institutions need to address this gap. Lastly students agreed that the practical training opportunities offered in the college adequately prepare them for handling EmONC scenarios. This implied that skills lab demonstrations improve student's competency in EmONC.

The findings in table 4.6 show that *“The faculty members have the necessary skills to teach EmONC effectively”* is the attribute of academic training institution factors that received the highest mean [Mean=4.0741] in respect of nursing students. This implies that nursing students perceive nurse educators as competent in curriculum implementation. On the other hand, *“The college fosters a supportive learning environment conducive to the study of EmONC”* is the attribute of academic training institution factors that received the lowest mean [Mean=4.0741] from student perspective. This suggest that the learning environment provided by the training institutions is not conducive for learning EmONC. The results in table 4.5 and 4.6 show that majority both from nurse educators and nurse students agreed that to an extent, academic training institution factors influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. These results are in line with the sentiment of Erlandsson et al., (2018) who stated that it is crucial for nursing training institutions to establish mentorship programs aimed at assisting midwifery faculty members in gaining a comprehensive understanding of the entire range of midwifery practice and effectively implementing the midwifery diploma curriculum on EmONC. Additionally, a study done by WHO (2014), established that the presence of competent nurse educators is crucial in preparing capable practitioners, leaders, and researchers in the field of nursing. Without

adequately nurse educators, it becomes exceedingly challenging to produce the necessary workforce with the required competencies.

4.4.3 Student's factors

This study sought to establish the extent of students' factors in influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, both nurse educators and nursing students were requested to respond on 10 and 8 attributes respectively of students' factors of the faith-based colleges in Meru and Tharaka Nithi County they represented. Table 4.7 and 4.8 presents these analyzed results of the extent students' factors is influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

The study results in table 4.7 show that nurse educators agreed that balancing EmONC coursework with other aspects significantly affects student performance this was shown by a mean of 3.9000 and standard deviation of 0.94868. Additionally, study results revealed that the level of student engagement is not adequate to facilitate learning in EmONC. This means that nurse educators need to improve on students' engagement to facilitate learning in EmONC. On the issues of support in classroom and clinical areas study results showed that students felt supported in class but not in clinical areas this was shown by a mean 4.0000 and 2.1000 respectively. This implies that students need to be well supported in their clinical areas to facilitate learning in EmONC.

Table 4.7*Student factors from nursing students*

Students' factors for Nurse Educators	N	Mean	Std. Deviation
Students are confident in their understanding of EmONC principles and practices.	10	3.1000	.87560
Balancing EmONC coursework with other aspects significantly affects student performance.	10	3.9000	.94868
The level of student engagement is not adequate to facilitate learning in EmONC	10	3.9000	.87560
Nurse educators effectively support students in their classroom teaching in EmONC.	10	4.0000	.81650
Nurse educators do not effectively support students in their EmONC clinical placements	10	2.1000	.99443
Students perceive EmONC training as not relevant to their future nursing careers.	10	2.4000	.96609
Students are motivated to learn the EmONC content	10	3.6000	.69921
Students find the quality of EmONC curriculum delivery satisfactory.	10	3.5000	.70711
Students' different learning styles are not considered when teaching EmONC	10	3.7000	.94868
Students get constructive feedback on mastery of EmONC concepts	10	3.3000	1.05935
Overall average	10	3.1900	0.8891

Lastly majority of the nurse educators agreed to a great extent that students' different learning styles are not considered when teaching EmONC. This was shown by a mean of 3.7000 and a standard deviation of 0. 94868. This implied that the learner differences are not considered when implementing the curriculum in EmONC. Moreover, findings in table 4.7 show that “*Nurse Educators effectively support students in their classroom*

teaching in EmONC.” is the attribute of students’ factors that received the highest mean [Mean=4.000]. This implied that nurse educators perceived that they provided effective support to their students during classroom teaching in EmONC.

Table 4.8

Student factors from nursing students

Student factors for Nursing Students	N	Mean	Std. Deviation
The EmONC concepts are relevant to my nursing profession.	216	3.9907	.70209
The EmONC curriculum is adequately covered in my nursing program	216	3.9954	.71201
I was satisfied with clinical opportunities to practice EmONC skills.	216	2.8565	1.18626
The nursing curriculum adequately prepares me for handling EmONC emergencies.	216	3.9583	.79130
The time spent in the simulation lab helped prepare me for the EmONC clinical placement.	216	4.0231	.79792
I had a strong understanding of EmONC competencies i was required to develop and practice before starting my clinical placement.	216	3.9907	.74078
I felt supported by preceptors during my EmONC clinical placement	216	2.6620	1.27649
My nurse educators treated me with respect	216	3.8981	.66738
Overall average	216	3.6719	0.8593

The findings in table 4.8 show that nursing students agreed to some extent that EmONC concepts are relevant to their profession this was shown by a mean of 3.9907 and a standard deviation of 0.70209. Nursing students showed mixed feelings with a high level of variation concerning the clinical opportunities offered for practice this was evidenced

by a mean 2.8565 of and standard deviation of 1.18626. Moreover majority of the students agreed to a great extent that the time spent in the simulation lab helped prepare them for the EmONC clinical placement. This means that skills lab demonstrations need to be encouraged to facilitate learning in EmONC. Lastly the results further showed that students had mixed feelings on the support provided by preceptors during EmONC clinical placement. This suggest that some institutions offer the support needed while others do not. Hence student support during clinical placements needs to be encouraged to facilitate learning in EmONC. Furthermore, the findings in table 4.8 show that “*The time spent in the simulation lab helped prepare me for the EmONC clinical placement*” is the attribute of students’ factors that received the highest mean [Mean=4.0231]. This meant that students perceived that skills lab demonstrations on EmONC as important before their clinical placements hence should be encouraged.

Lastly results from table 4.7 and 4.8 show that majority both nurse educators and nurse students agreed that to an extent, students’ factors influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. These results aligned with findings in a study by Erlandsson et al. (2018) who found out that nurse educators need to ensure comprehensive preparation of students for their clinical placements through effective classroom teaching and practical training in skills labs for successful curriculum implementation in EmONC.

4.4.4 Training hospital factors

Finally, to establish the extent of training hospital factors is influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, both nurse educators and nursing students were through questionnaires requested to respond on 10 and 7 attributes respectively of training hospital' factors of the faith-based colleges in Meru and Tharaka Nithi County they represented. Table 4.9 and 4.10 presents these analyzed results of the extent training hospitals' factors is influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

Table 4. 9

Training hospital factors from nurse educators

Training hospital factors for Nurse Educators	N	Mean	Std. Deviation
The training hospitals where nursing students undergo their practical training in EmONC has adequate resources	10	2.8000	1.03280
The procedures at the hospital may impact the implementation of the EmONC curriculum.	10	3.7000	.67495
Training hospitals have support programs in place that help educators effectively implement EmONC curriculum	10	2.5000	.70711
Nursing students are not adequately assessed during their practical training in EmONC in the training hospitals	10	2.9000	1.28668
The training hospitals have challenges with nursing students' supervision during practical training in EmONC	10	3.1000	1.28668
Training hospitals have challenges or limitations related to the hospital's patient population that may impact the implementation of EmONC curriculum	10	3.5000	1.08012
The training hospitals have opportunities for collaboration to improve the implementation of EmONC curriculum	10	3.6000	1.26491

Training hospitals have challenges of staffing that may impact the implementation of the EmONC curriculum at the hospital	10	4.3000	.67495
Training hospital do not have adequate preceptor expertise to facilitate learning in EmONC.	10	3.8000	.78881
Training hospitals have challenges with nursing students' integration into the hospital's existing EmONC teams	10	3.4000	.96609
Overall average	10	3.3600	0.9763

The results from table 4.9 show that “*Training hospitals have challenges of staffing that may impact the implementation of the EmONC curriculum at the hospital*” is the attribute of nurse educators’ factors that received the highest mean [Mean=4.3000]. This means that training hospitals have staffing challenges that interfere with proper curriculum implementation in EmONC. “*Training hospitals have support programs in place that help educators effectively implement EmONC curriculum*” is the attribute of nurse educators’ factors that received the lowest mean [Mean=2.5000]. This means that training hospitals lack support programs for nurse educators in regards to curriculum implementation in EmONC.

Nurse educators had neutral reactions with a high degree of variation concerning challenges in resources in the training hospitals where students undergo their clinical placements this was evidenced by a mean 2.8000 of and standard deviation of 1.03280 from the responses analyzed. This suggested that some training hospitals lack the necessary resources required for curriculum implementation in EmONC. Additionally, findings showed that the training hospitals have challenges with nursing students’ supervision during practical training in EmONC. This could have been due to low number of tutors in the respective colleges. Study results further showed that training hospitals

have challenges or limitations related to the hospital's patient population that impact the implementation of EmONC curriculum. This meant that the training hospital have low number of cases in EmONC which hinder learning. Moreover, the findings showed a high level of agreement that training hospital do not have adequate preceptor expertise to facilitate learning in EmONC. This was evidenced by mean 3.8000 of and standard deviation 0.78881 of respectively from nurse educators. This could have been because most students in faith-based colleges are placed in the respective faith-based hospitals whereby they are mentored by very young nurses due to high staff turnover in the hospitals.

Table 4.10

Training hospital factors from nursing students

Training hospital factors for Nursing Students	N	Mean	Std. Deviation
Collaboration between the faith-based college and healthcare facilities enhances the implementation curriculum on EmONC.	216	3.9537	.70723
Practical training opportunities in training hospital adequately prepare me for handling EmONC scenarios.	216	3.4630	.95893
The hands-on experience in EmONC does not meet my expectations	216	3.3843	.93785
I get adequate guidance during clinical rotations in EmONC.	216	3.7407	1.04655
I do not get adequate supervision during clinical rotations in EmONC.	216	4.0463	.74564
I get sufficient clinical placement opportunities in settings with a high volume of obstetric and neonatal cases.	216	3.9722	.66763
My preceptor understood the EmONC elements of my nursing program	216	2.8009	1.29837
Overall average	216	3.6230	0.9089

The results in table 4.10 show that nurse educators agreed with high degree of consensus that collaboration between the faith-based college and healthcare facilities enhances the implementation curriculum on EmONC. This was evidenced by a mean and standard deviation of 3.9537 and 0.70723 respectively. Additionally majority of nursing students agreed that practical training opportunities in training hospital adequately prepared them in handling EmONC scenarios however the hands-on experience didn't meet their expectations.

The results in table 4.10 show that "*I do not get adequate supervision during clinical rotations in EmONC*" is the attribute of training hospital factors that received the highest mean [Mean=4.0463]. This means that nursing students do not receive adequate supervision during their clinical rotation and this affects learning in EmONC. "*My preceptor understood the EmONC elements of my nursing program*" is training hospital factors that received the lowest mean [Mean=2.8009] this means that nursing students felt that clinical preceptors did not understand their EmONC elements during clinical rotations well.

From these results in table 4.9 and 4.10 show that majority both from nurse educators and nurse students agreed that to an extent, training hospital factors influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. These results concurs with the findings of Gavine et al., (2019) who found that it is essential for training institutions to recognize their responsibility in ensuring that their midwifery students receive high-quality clinical practice opportunities that foster competency building. Furthermore, these results echo the findings of Filby et

al. (2016) who highlighted that lack of adequate staffing and poor clinical supervision led to nursing students graduating with outdated practices or insufficient clinical competencies in EmONC. Additionally, nurse educators should provide ongoing support during the students' clinical placement to ensure the successful implementation of the curriculum EmONC. Open and effective communication between educational institutes and clinical sites is essential in facilitating this process (Erlandsson et al. 2018). Panda et al. (2021) additionally noted that the presence and consistent supervision from a nurse educator is a significant element that contributes to creating a favorable clinical learning environment.

4.5 Curriculum implementation on EmONC for faith-based Colleges

To investigate the factors influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, both nurse educators and nursing students were separately requested to respond on 10 and 10 attributes respectively of curriculum implementation of the faith-based colleges in Meru and Tharaka Nithi County they represented. Table 4.11 and 4.12 presents these analyzed results of the extent the curriculum-implementation in EmONC from nurse educators and nursing students.

The results in table 4.11 show that nurse educators showed mixed feelings concerning knowledge on the stages of curriculum implementation with a high degree of consensus. This was evidenced by a mean 3.3000 and standard deviation of 0. 67495 from the responses received from nurse educators.

Table 4.11*Curriculum implementation on EmONC from nurse educators*

Curriculum implementation for Nurse Educators	N	Mean	Std. Deviation
I am conversant with the various stages of the curriculum implementation process and different actors involved	10	3.3000	.67495
I have increased the likelihood of successful implementation of the nursing curriculum on EmONC in faith-based nursing colleges in Meru County	10	4.0000	.94281
I continually evaluate the implementation of the curriculum and make adjustments as necessary	10	3.8000	.91894
I am able to effectively communicate the goals of the curriculum to various stakeholders for successful implementation	10	3.7000	.82327
I am aware of the importance of understanding the complex nature of the educational system that impact the implementation of a curriculum	10	2.5000	1.26930
Trainers' individuals responsible for implementing the curriculum are always informed about any updates in the curriculum	10	3.5000	1.26930
As a nurse educator, I pay attention to the prevailing educational policies, the beliefs and values of the community	10	3.0000	1.05409
To some extent I feel that necessary resources are available to facilitate the proper implementation of the curriculum on emergency obstetrics and neonatal care	10	4.2000	.78881
Our academic training institution and hospitals has provided us with the needed resources for proper curriculum implementation	10	4.1000	.87560
Midwifery educators at Faith-Based Colleges in Meru County have communication skills	10	2.6000	1.17379
Overall average	10	3.4700	0.97910

Majority of the educators agreed that they continually evaluate the implementation of the curriculum and make adjustments as necessary in order to facilitate proper curriculum

implementation. Moreover, nursing educators had mixed feelings on the question of whether they are informed about any updates in the curriculum in relation to EmONC. This suggest that forums need to be created to ensure every educator is aware of updates in EmONC. Moreover, the results in table 4.11 show that *“To some extent I feel that necessary resources are available to facilitate the proper implementation of the curriculum on emergency obstetrics and neonatal care”* is the attribute of nurse educators’ factors that received the highest mean [Mean=4.200]. This meant that some resources are available and others are lacking in respect to curriculum implementation in EmONC. On the other hand, *“I am aware of the importance of understanding the complex nature of the educational system that impact the implementation of a curriculum”* This meant that nurse educators did not understand well the complex nature of curriculum implementation in EmONC.

The results in table 4.12 show that majority of the nursing students agreed to a high extent that student related factors and learning environment greatly influence curriculum implementation in EmONC. This was evidenced by a mean of 4.0787 and 3.6296 respectively in the responses received from nursing students. Moreover, nursing students agreed with a high degree of consensus that female students exhibit a higher likelihood of having confidence in maternal care skills compared with their male counterparts. This implied that gender could be one of the student factors that influence implementation of the curriculum in EmONC. Furthermore, nursing students showed a high degree of agreement that availability of adequate clinical learning opportunities facilitating learning in EmONC. This was evidenced by a mean of 4.0324 and standard deviation of 0.78584

in the responses analyzed. This meant that training hospitals need to provide good clinical learning opportunities for students to ensure transfer of theory to practice to facilitate learning in EmONC.

Table 4.12

Curriculum implementation in EmONC from nursing students

Curriculum implementation for Nursing Students	N	Mean	Std. Deviation
The knowledge and experience I acquired has facilitated proper curriculum implementation	216	1.9769	1.66340
Student-related factors lead to effective implementation of the curriculum on EmONC	216	4.0787	.73346
Supportive learning environment has led to the successful curriculum implementation in EmONC	216	3.6296	.60375
My confidence and performance in EmONC are due to nurse educator encouragement, feedback, and mentorship	216	2.5093	1.18121
Planning, adoption, and adaptation factors is the reason for the success of curriculum implementation	216	4.0185	.68174
The level of confidence in handling maternal newborn care skills is from nurse educators' mentorship	216	4.0000	.70216
Effective communication among teachers, administrators, teachers, students, parents and the wider community facilitate curriculum implementation	216	4.0278	.68822
I feel part of implementation because nurse educators involve me in EmONC discussions	216	2.8657	1.19516
Female students exhibit a higher likelihood of having confidence in maternal care skills compared with their male counterparts	216	3.9676	.79174
I have mastery of EmONC competencies due to availability of adequate clinical learning opportunities	216	4.0324	.78584
Overall average	216	3.5107	0.90267

The results in table 4.12 further show that “*I have mastery of EmONC competencies due to availability of adequate clinical learning opportunities*” is the attribute of nursing students’ factors that received the highest mean [Mean=4.0324] in respect of nursing students. This meant that nursing perceived clinical opportunities to be adequate for learning in EmONC.

Generally, the results in table 4.11 and 4.12 show that majority both from nurse educators and nurse students agreed that to an extent, curriculum implementation in EmONC is influenced by a number of factors. These results correspond with the sentiments by (Mirkuzie, Sisay, Reta, et al., 2014) who stated that effective EmONC is vital for reducing most of this maternal and neonatal mortality rate. Insufficient pre-service training on EmONC, along with inadequate support supervision, are the primary obstacles to delivering high-quality maternal and neonatal care in most LMIC. Similarly, these findings align with the observation by Gemuhay et al. (2019) who noted that clinical practice at placement sites should provide students with the opportunity to put their theoretical understanding into real-world context, enhance nursing skills and clinical judgment, and observe and integrate professional responsibilities. Furthermore, it is essential for training institutions to recognize their responsibility in ensuring that their midwifery students receive high-quality clinical practice opportunities that foster competency building in EmONC (Gavine et al., 2019). Additionally, Nyoni et al. (2021) emphasized the importance of having a supportive learning environment, encompassing faculty, peers and necessary resources being crucial for successful curriculum implementation in EmONC.

4.6 Inferential statistics results

After the descriptive analysis of data on the study variables was completed, correlation analysis was carried out to test the extent of influence of nurse educator factors, nursing institution factors, student factors and training hospital factors on curriculum implementation in EmONC for diploma nursing programs of faith-based colleges in Meru and Tharaka Nithi County. Table 4.13 present bivariate correlation results between variables (nurse educator factors, nursing institution factors, student factors and training hospital factors) and curriculum implementation in EmONC for diploma nursing programs of faith-based colleges in Meru and Tharaka Nithi County.

Table 4.13

Bivariate Correlation analysis results for nurse educators and students

Nurse Educators correlation		Curriculum implementation	Nurse educator	Nursing institution	Student factors	Training hospital
Curriculum implementation	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	10				
Nurse educator	Pearson Correlation	.839**	1			
	Sig. (2-tailed)	.002				
	N	10	10			
Nursing institution	Pearson Correlation	.898**	.746*	1		
	Sig. (2-tailed)	.000	.013			
	N	10	10	10		
Student	Pearson Correlation	.859**	.768**	.793**	1	
	Sig. (2-tailed)	.001	.009	.006		
	N	10	10	10	10	
Training hospital	Pearson Correlation	.745*	.583	.841**	.768**	1
	Sig. (2-tailed)	.013	.077	.002	.009	
	N	10	10	10	10	10

Students' correlation		Curriculum implementation	Nurse educator	Nursing institution	Student factors	Training hospital
Curriculum implementation	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	216				
Nurse educator	Pearson Correlation	.890**	1			
	Sig. (2-tailed)	.000				
	N	216	216			
Nursing institution	Pearson Correlation	.640**	.634**	1		
	Sig. (2-tailed)	.000	.000			
	N	216	216	216		
Student	Pearson Correlation	.853**	.890**	.657**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	216	216	216	216	
Training hospital	Pearson Correlation	.913**	.944**	.634**	.930**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	216	216	216	216	216

Testing of research question one

To establish nurse educator factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, research question one was tested.

The following was the research question one tested:

1. What are the nurse educator factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County?

The results in Table 4.13 shows a strong positive correlation coefficient of 0.839 and 0.890 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This means that on overall, nurse educators positively influence curriculum

implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

Testing of research question two

To determine training institutional factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, research question two was tested.

The following was the research question two tested:

2. What are the nurse educator factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County?

The results in Table 4.13 shows a strong positive correlation coefficient of 0.898 and 0.640 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This means that on overall, nursing institution positively influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

Testing of research question three

To establish student factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, research question three was tested.

The following was the research question three tested:

3. What are the student factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County?

The results in Table 4.13 shows a strong positive correlation coefficient of 0.859 and 0.853 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This means that on overall, student factors positively influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

Testing of research question four

To establish training hospital factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, research question four was tested.

The following was the research question four tested:

4. What are the training hospital factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County?

The results in Table 4.13 shows a strong positive correlation coefficient of 0.745 and 0.913 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This means that on overall, training hospital factors positively influence curriculum

implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

4.7 Qualitative analysis on the factors influencing curriculum implementation on EmONC

In order that more informed and backed up report is obtained; this study supplemented the quantitative data to increase rigor of the study. To achieve this, key informant interview schedule questions were directed to the respondents relating to the factors influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. Each factor influencing curriculum implementation on EmONC was analyzed using thematic approach and the results is as follows.

4.7.1 Nurse Educator Factors

In order to establish nurse educator factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, the respondents were requested to list and explain the specific educator factors they believe influence the successful implementation of the curriculum on EmONC within the nursing program. The results show that at least, according to the respondents these factors included the initial training on EmONC, introduction level offered to the students by the educator, teaching methods of the educator ,attitude and motivation of the nurse educator, level of training offered by the educators, qualification of the nurse educator , having up-to-date information about EmONC, nurse educator experience, trainer knowledge/skills, friendly working environment, level of education, and age among others. The findings align with

the observation by Erlandsson et al. (2018) who highlighted that the proficiency of faculty members who teach EmONC can have a significant impact on the instructional approach. Whereby the faculty members who possess extensive experience and knowledge in these domains are more inclined to deliver thorough and comprehensive instruction in EmONC. Additionally, Shikuku, Mohammed, et al. (2024) emphasized that continuous professional development of nurse educators is needed to bridge the gap between theory and practice and for effective teaching.

“I think experience and continuous professional development are the key factors that influence how we implement the curriculum in EmONC.”

As to what challenges the respondents have encountered as a nurse educator in delivering curriculum on EmONC, similarly at least the respondents acknowledged that such challenges include practical aspect deficiency, educators work experience, laxity on incorporation or implementation of research, lack of continued medical education, availability and exposure to specific cases (some students miss crucial clinical activities due to work rotational issues), large number of students to be attended at a time, demonstration of cases is not possible due resources issues, time factor meaning that time allocated is not adequate, lack of technical experience and lack of time to use the skill labs. The respondents indicated that seminars/workshops for both parties are missing, the issue of availability and advance technology also featured in addition to poor policies and lack of good structure leaving students overcrowded in the same area. The study also noted insufficient number of educators and use of traditional teaching methods was cited a big challenge. These findings agree with findings from a study done by WHO (2019), which

noted that midwifery nurse educators in LMICs encounter various difficulties, including inadequate teaching resources, disparities in midwifery curriculum content and duration, limited clinical site availability, and a disconnection from practical clinical experience. Additionally, Filby et al. (2016) highlighted that nurse educators often rely on traditional didactic teaching methods within traditional classroom settings, despite the existence of more advanced teaching approaches as a consequence, nursing students graduate with outdated practices or insufficient clinical competencies in EmONC. Similarly, Shikuku, Bar-Zeev, et al.(2024) identified lack of opportunities for professional development in EmONC, resources and poor teaching techniques as the main barriers to curriculum implementation in EmONC.

“Most of the students I teach are not able to put into practice what they learn in class due to lack of access of specific cases in the clinical areas. Hence training them in the classroom becomes very difficult. Additionally nursing colleges have high number of students which makes it difficult for students to get the concepts properly. Another challenge is that there is lack of sufficient time due to limitation to specific number of hours per lesson.”

4.7.2 Academic Nursing Training Institutional Factors

Regarding the question of determination of training institutional factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, the respondents were asked to indicate how they would describe the overall environment and support provided by the nursing academic training institution

for the implementation of the curriculum on EmONC. The results show a mixed reactions whereby some respondents indicated that overall, the environment is well supported while others indicated not well supported in terms of implementation, equipment for practicals, educators have no workshop for continuous professional development. Generally, at least each respondent agreed that nursing training institutional factors is an area that need greater support. The findings align with the findings of a study by WHO (2019) whereby it was noted that institutional power structures prevent, nurse educators from pursuing further education to enhance their knowledge and skills in EmONC. Consequently, this hampers their ability to fully utilize their training potentiality. Additionally, Erlandsson et al. (2018) emphasized that it is crucial for nursing training institutions to establish mentorship programs aimed at assisting midwifery faculty members in gaining a comprehensive understanding of the entire range of midwifery practice and effectively implementing the midwifery diploma curriculum on EmONC.

“I have worked in a number of institutions and I can say that some do not offer the necessary support to the learners and the trainers in terms of resources. We are facing a challenge currently in the college and in the training hospitals where we attach our students.”

On the aspect of what institutional policies, resources, or structures impact the implementation of the curriculum on EmONC, the respondent indicated that though there are proper working policies but the institution has put more emphasis on theory aspect, staff/work rotation. The respondents also acknowledged that the institution have policies on availability books and computer to enhance students training. On the question of

whether there any collaborative efforts or partnerships between the college and healthcare facilities that contribute to the successful implementation of the curriculum on EmONC, at least the respondents said yes and one of the respondents specifically mention Jacaranda Health to be one of the institutions they have a collaboration with. This echoes findings by Shikuku, Bar-Zeev, et al., (2024) who noted that training institutions need to collaborate with training hospital for effective learning and assessment in EmONC for students to link theory to practice.

“In the college I am working in a scale of one to ten I can say six, they are trying but still we have challenges that are beyond the institution. The institution gives us space so that you can organize yourself and implement the curriculum but some resources are available others are not in terms of equipment”

4.7.3 Student Factors

This study further sought to assess the student factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. To achieve this objective the respondents were requested to indicate if any, specific characteristics or factors among the students that influence their learning experience in EmONC. From the results received the respondents indicated that among such factors were, interest factor, attitude of students, number of student manageable, fees payment challenges, culture limitations. To help mitigate these challenges the respondents suggested that number of educators be increased, improve on

overall work environment and increase number of human resource as well as improve on mentorship.

“Definitely there are student related factors, their capability, some are challenged, some the attitude might be right or wrong, sometimes we see age being a factor that influences most of the students because we find some time when we have a mature student as a student, they tend to perform better than the very young yeah I think those are some of the few factors”

4.7.4 Training Hospital Factors

Finally, the researcher sought to establish the training hospital factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. The respondents were asked to give their opinion on what support or challenges do students face in clinical settings while implementing the curriculum on EmONC. According to the results the respondents there was a mixed reaction with some indicating that support is given while others indicated that there is no support. These aspects included good support such as student assessment through assignment adequate support- such as clinical instruction, student mentor in various facility, students getting opportunities and observe operations, shortage of clients, higher number of students deny them learning opportunities and only the proactive one have advantage, lack of mentorship because of too much on nurse educator, EmONC has not been taken seriously, not up-to-date. These findings are similar to findings in a survey done in Sierra Leon among preservice midwifery students, whereby most students

reported to have deficiencies in learning opportunities in certain EmONC competency areas due to shortage of clients(Sonnie et al., 2023). Additionally, Sonnie et al. (2023) noted that student clinical supervision was also a challenge whereby observation-based student supervision by midwifery educators was frequently constrained due to issues like transportation limitations and the costs associated with fuel. Similarly, Shikuku, Bar-Zeev, et al. (2024) noted that students face similar issues in training hospitals to include lack of support and mentorship during placement, observing EmONC cases without performing, conflicting information in classroom and clinicals, lack of enough training hospitals leading to poor clinical supervision due to the high students' numbers in one placement.

“In our college students are well supported because basically we have frameworks or set guidelines, they have clinical mentors in the maternity department, antenatal post-natal and labor each one of them has a mentor who basically mentors’ students. Every day we have students attending to major procedures hence they are well mentored and taken care of.”

“In the institution I am in the students have a challenge in mentorship in the clinicals. those who are supposed to mentor them are busy handling the high patient numbers in the hospital so this affects the students so much”

4.7.5 Recommendations from nurse educators

Based on their expertise, the respondents were asked about what recommendations or strategies they would suggest to enhance the successful implementation of the curriculum

on EmONC in faith-based nursing colleges in Meru County and the following were recommended:

- i. Training both the teacher and student on current updates in EmONC
- ii. Embrace consistent CPD on workshop/seminars in the area of EmONC
- iii. Embrace good collaboration between mentors and trainees
- iv. Ensure to match number of trainee and amount of equipment and number of nurse educators
- v. Improve on teaching method, number of hours covered, more time so that students are properly attended to.
- vi. Embrace good and more infrastructure to facilitate curriculum implementation
- vii. Embrace up-to-date information on current affairs in relation to EmONC

“On the learning technique in think apart from just giving the theory bit of midwifery and obstetrics we could also do some drills and visual presentations. We can make sure we have enough facilities to accommodate students so that we don’t have that kind of competition in clinicals. Also regulating the number of students, we admit because currently we are admitting so many.”

“We can ensure that first of all the number of trainees in an institution is comparable to the number of resources in the training hospital. So, we have to look at the issue of numbers so that we are training a number of students equivalent to the number of resources that we have, increase the number of trainers, consistently update the knowledge of the trainer through continuous medical education or additional training”.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter entails summary, conclusions and recommendation of the study

5.2 Summary

This study was based on four specific objectives as summarized below:

In relation to establish nurse educator factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, this study found that lack of EmONC Training, use of traditional teaching methods, educator motivation, experience ,CPD opportunities and workload were the nurse educator factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County .The aspects of nurse educator factors that most influence curriculum implementation on EmONC included; “*I have developed personal strategies to ensure quality in the teaching of EmONC across the nursing program*” followed by aspect of “*The faculty members have the necessary skills to teach EmONC effectively*”. For inferential statistics results, it shows a strong positive correlation coefficient of 0.839 and 0.890 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This means that on overall, nurse

educators positively influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

About the determination of academic training institutional factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, the respondents indicated that, an enabling environment, institutional support, collaboration between training hospital and institutions are among the training institutional factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. The aspects of academic training institutional factors that most influence curriculum implementation on EmONC included; *“The nursing academic training institution has a strong partnership with clinical facilities for clinical practice in EmONC”* followed by *“The faculty members have the necessary skills to teach EmONC effectively”*. For inferential statistics results, it shows a strong positive correlation coefficient of 0.898 and 0.640 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This means that on overall, nursing institution positively influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County.

In relation to assessing the student factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, majority of the respondents indicated that, student interest factor, students' attitude, number of students fee payment challenges and culture limitation are among the students' factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. The aspects of student's factors that

most influence curriculum implementation on EmONC included; *“Nurse Educators effectively support students in their classroom teaching in EmONC”* followed by *“The time spent in the simulation lab helped prepare me for the EmONC clinical placement”*.

For inferential statistics results, it shows a strong positive correlation coefficient of 0.859 and 0.853 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This means that on overall, student factors positively influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County

And finally, in relation to establishing the training hospital factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County, this study found that lack of student support, inadequate mentorship, shortage of clients, observing only but not performing tasks in clinical rotations, high student numbers, poor clinical supervision/mentorship are the training hospital factors that influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. The aspects of training hospital factors that influence curriculum implementation on EmONC included; *“Training hospitals have challenges of staffing that may impact the implementation of the EmONC curriculum at the hospital”* followed by *“The faculty members have the necessary skills to teach EmONC effectively”*. For inferential statistics results, it shows a strong positive correlation coefficient of 0.745 and 0.913 for nurse educators and students respectively and are all statistically significant ($p < 0.05$). This means that on overall, nurse educator academic training institution students and training hospital factors positively

influence curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County

5.3 Contribution to the existing body of Knowledge

The study highlights the significance of the factors influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. It provides a means with which faith-based colleges in Meru and Tharaka Nithi County can sustain their curriculum implementation on EmONC and meet expectations of health sector stakeholders. The study contributes to Curriculum implementation theory by Gross in that it confirms the significance of his theory where he emphasizes the importance of understanding the complex nature of the educational system and the various factors that impact the implementation of a curriculum. Institutions need to have the necessary resources and enablers to faith-based colleges in Meru and Tharaka Nithi County in achieving and the implementation of a curriculum.

Further, the study has demonstrated that nurse educators, nursing institution, student and training hospital factors has influence on implementation of curriculum on EmONC by establishing the extent and strength of the influence.

5.4 Conclusion

This study was guided by four objectives and after data analysis it was concluded that the nurse educators, nursing institution, student and training hospital factors positively influence implementation of curriculum on EmONC in Meru and Tharaka Nithi County.

This study established that nurse educators face a myriad of challenges such as high students' numbers, low nurse educator numbers, lack of clinical practice for the nurse educators and opportunities for continuous professional development which interfere with proper curriculum implementation. Additionally, there is an urgent need for support in student mentorship and supervision in the training hospitals in order to achieve competency in EmONC among nursing students.

5.5 Recommendations

Based on the findings of this study the study recommends several actions to improve curriculum implementation in EmONC in relation to the research objectives.

Nurse educator factors

Training institution need to encourage team to team teaching among nurse educators

Training institution to offer continuous professional development opportunities for nurse educators

Training institutions to encourage educators to adopt innovative teaching methods when delivering EmONC content

Nurse educators need to have pedagogy training course for efficient and effective instruction.

Academic training institution

Training institution need to provide peer to peer support of educators

Training institution to recruit more educators to meet the needs of the high number of students

Training institution to avail necessary resources in classroom and skill lab to facilitate learning in EmONC.

Training institution to regularly audit resource availability and address any shortages or deficiencies promptly for effective instruction.

Training institution to make arrangement for students to get preservice EmONC if possible before graduation

Student factors

Nurse educators need to tailor the curriculum to meet the individual needs of the student in EmONC.

Nurse educators to use interactive teaching methods that stimulate student motivation and engagement in EmONC.

Training hospital factors

Training institution and hospitals to improve student's mentorship and supervision in clinical areas.

Academic training institution to expose nurse educators to clinical practice to strengthen their classroom teaching in EmONC.

Academic training institution to increase training hospitals to cater for the high students' numbers

5.6 Suggestions for Further Research

Further research studies can build on the findings of this study to broaden the existing knowledge on factors influencing curriculum implementation on EmONC for faith-based diploma nursing students in Meru and Tharaka Nithi County. This study was limited to diploma nursing programs of faith-based colleges in Meru and Tharaka Nithi County. Further research can therefore be conducted in other counties including diploma nursing students that are not in faith-based colleges. Further research can also be carried out in all other counties to cover other aspect of factors influencing curriculum implementation on EmONC for faith-based diploma nursing students other than the ones involved in this study. Other studies can as well be done to investigate how specific training programs for nurse educators impact the quality of curriculum delivery and student outcomes in EmONC. Lastly a study can also be done to evaluate the effectiveness of different types of training and their influence on nurse educator performance in EmONC.

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APPENDICES

Appendix 1: Nursing Student Consent Form

Kenya Methodist University

P.O. BOX 267-60200

Meru, Kenya

SUBJECT: INFORMED CONSENT

Dear Respondent,

I am Mirriam Muendi Kivuva, currently pursuing an MSc in Nursing Education at Kenya Methodist University. For my research project, I am conducting an investigation on the Factors Influencing the Implementation Curriculum on Emergency Obstetrics and Neonatal Care in Diploma Nursing Programs of Faith-Based Colleges in Meru County. The study will enhance our knowledge on factors that impact the implementation of the curriculum on emergency obstetrics and neonatal care within faith-based colleges in Meru County. Additionally, the findings will contribute to recommendations for improving the curriculum implementation in these institutions, ultimately enhancing the quality of midwifery education.

Procedure to be followed

To take part in this research, I will be asking you a series of questions regarding the implementation of the curriculum on emergency obstetrics and neonatal care. Your responses will be recorded in a questionnaire.

Please note that you can decline participation in the study. Your decision to not participate will not result in any negative consequences or impact your current roles. It is important to emphasize that your decision will not be held against you or used in any detrimental manner.

It is crucial to understand that involvement in this study is voluntary. At any point during the research, you have the freedom to inquire about any aspects related to the study. You have the option to refuse to respond to specific questions. Furthermore, you can withdraw from the study at any point without facing any repercussions.

Discomfort risks

While responding to the questions, you may encounter some that can make you feel uncomfortable. In this case, you are permitted to skip those particular questions. It is within your rights to decline the interview altogether or refuse to answer any specific questions posed during the interview.

Benefits

By taking part in this study, you will contribute to our understanding of the factors that influence the effective implementation of the curriculum on emergency obstetrics and neonatal care, not only in Meru, Kenya but also in other LMICs in Africa. Consequently, the findings from this research will have broad benefits for countries, communities, and individuals, leading to positive health outcomes.

Rewards

There are no incentives or rewards offered to respondents.

Confidentiality

Respondents' identity will remain anonymous in relation to the questionnaire, and the questionnaires will be stored securely at the University.

Contact Information

For any additional inquiries or concerns on your involvement in the study, kindly contact the following supervisors.

Dr. Susan Njuguna – njugunarsm@gmail.com

Miss Roselyn Odhiambo – roselyne.odhiambo@kemu.ac.ke

Participants Statements

I fully comprehend the information provided regarding my involvement in the study. I have inquired about uncertainties I may have had, and those inquiries have been addressed to my contentment. I am willingly opting to take part in this study, understanding that my personal information will be treated as confidential and kept private.

I can withdraw from the study at any point without facing negative repercussions in my workplace/school, as my decision will not influence how I am treated there.

Name of respondent..... Date Signature

Researcher's statement

I, Mirriam Muendi Kivuva, have effectively communicated to the participant, using language that they understand, about the study's procedures, including the potential risks and benefits associated with their involvement.

Name of Interviewer..... Date..... Signature.....

Appendix 2: Nursing Student Questionnaire

This questionnaire will collect data regarding the implementation of the curriculum on EmONC. It has several sections: demographics and the factors influencing implementation of the curriculum on EmONC. To protect your identity, you will not be required to provide any personal identification details. Kindly give us your honest responses. The entire exercise will take 10 to 20 minutes of your time. In case of any discomfort by the participant one is allowed to withdraw from the study in providing information

Section A: Demographic Information

Kindly tick as appropriate

1. Indicate the faith-based nursing college are you currently enrolled.
 - a. Methodist college of health sciences ☐
 - b. Consolata Nkubu school of nursing ☐
 - c. PCEA Chogoria Clive Irvine College of Health Sciences ☐
2. Your gender
 - a. Male ☐
 - b. Female ☐
3. Your age in years 18-24 ☐ 25-31 ☐ over 31 ☐
4. Current year of study in the nursing program
 - a. Second year ☐
 - b. Third year ☐
5. Your current semester in the above year of study
 - a. First semester ☐
 - b. Second semester ☐

Section B: Factor influencing curriculum implementation on EmONC

Please rate the following statements based on your agreement or disagreement with them using a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

Factors	Aspects items	1	2	3	4	5	
Nurse educator factors	The faculty members have the necessary knowledge to teach EmONC effectively.						
	The faculty members have the necessary skills to teach EmONC effectively.						
	I receive adequate mentorship when learning about EmONC.						
	I do not receive adequate supervision when learning EmONC.						
	My nursing program incorporates learning of EmONC for all students.						
	Faculty members stay updated with the latest on EmONC.						
	The teaching methods used facilitate my understanding of EmONC.						
	The teaching methods used by the trainers do not facilitate my application of EmONC skills						
	The nurse educators in the college provide sufficient guidance in applying EmONC knowledge in clinical practice.						
	The assessment methods used by the trainers in the EmONC curriculum do effectively evaluate my skills in this field.						
	The faculty members in the college provide timely feedback on my performance in EmONC						
	The faculty members in the college do not provide constructive feedback on my performance in EmONC						
Academic training institution factors	The resources available are sufficient for learning EmONC						
	The college administration is supportive of the EmONC curriculum						
	The workload constraints make it difficult to adequately learn about EmONC.						
	Time constraints make it difficult to adequately learn about EmONC						
	The college provides specialized training to nursing students to enhance their competency in EmONC						
	The college offers opportunities for students to engage in research related to EmONC						

	The college evaluates the effectiveness of their EmONC curriculum in terms of student learning.						
	The college does not provide opportunities for community outreach programs in EmONC.						
	There is effective communication between students and faculty members regarding any concerns related to the EmONC curriculum.						
	There is no effective collaboration between students and faculty members regarding any concerns related to the EmONC curriculum						
	The college offers sufficient assistance to enable students to enhance their understanding in EmONC beyond their regular academic coursework.						
	The college fosters a supportive learning environment conducive to the study of EmONC.						
	The practical training opportunities offered in the college adequately prepare me for handling EmONC scenarios						
Student factors	The EmONC concepts are relevant to my nursing profession.						
	The EmONC curriculum is adequately covered in my nursing program						
	I was satisfied with clinical opportunities to practice EmONC skills.						
	The nursing curriculum adequately prepares me for handling EmONC emergencies.						
	The time spent in the simulation lab helped prepare me for the EmONC clinical placement.						
	I had a strong understanding of EmONC competencies i was required to develop and practice before starting my clinical placement.						
	I felt supported by preceptors during my EmONC clinical placement						
	My nurse educators treated me with respect						

Training hospital factors	Collaboration between the faith-based college and healthcare facilities enhances the implementation curriculum on EmONC.						
	Practical training opportunities in training hospital adequately prepare me for handling EmONC scenarios.						
	The hands-on experience in EmONC does not meet my expectations						
	I get adequate guidance during clinical rotations in EmONC.						
	I do not get adequate supervision during clinical rotations in EmONC.						
	I get sufficient clinical placement opportunities in settings with a high volume of obstetric and neonatal cases.						
	My preceptor understood the EmONC elements of my nursing program						
Curriculum implementation on EmONC	The knowledge and experience acquired at Faith-Based Colleges in Meru County has facilitated proper curriculum implementation						
	Student-related factors can lead to effective implementation of the curriculum on EmONC						
	The successful curriculum implementation in EmONC at Faith-Based Colleges in Meru County is due to the supportive learning environment, encompassing both faculty and peers						
	My confidence and performance in EmONC are due to nurse educator encouragement, feedback, and mentorship						
	The curriculum implementation success at Faith-Based Colleges in Meru County is as a result of our planning, adoption, and adaptation, as well as actors such as teachers, administrators, and policymakers						
	Institution, duration, and educational attainment are some of the factors affecting the level of confidence in handling maternal newborn care skills						
	Effective communication among teachers, administrators, teachers, students, parents						

	and the wider community facilitate curriculum implementation						
	I feel part of implementation because nurse educators involve me in EmONC discussions						
	Female students exhibit a higher likelihood of having confidence in maternal care skills compared with their male counterparts						
	I have mastery of EmONC competencies due to availability of adequate clinical learning opportunities						

Appendix 3: Nurse Educator Questionnaire Consent Form

Kenya Methodist University

P.O. BOX 267-60200

Meru, Kenya

SUBJECT: INFORMED CONSENT

Dear Respondent,

I am Mirriam Muendi Kivuva, currently pursuing an MSc in Nursing Education at Kenya Methodist University. For my research project, I am conducting an investigation on the Factors Influencing the Implementation Curriculum on Emergency Obstetrics and Neonatal Care in Diploma Nursing Programs of Faith-Based Colleges in Meru County. The study will enhance our knowledge on factors that impact the implementation of the curriculum on emergency obstetrics and neonatal care within faith-based colleges in Meru County. Additionally, the findings will contribute to recommendations for improving the curriculum implementation in these institutions, ultimately enhancing the quality of midwifery education.

Procedure to be followed

To take part in this research, I will be asking you a series of questions regarding the implementation of the curriculum on emergency obstetrics and neonatal care. Your responses will be recorded in a questionnaire.

Please note that you can decline participation in the study. Your decision to not participate will not result in any negative consequences or impact your current roles. It is important to emphasize that your decision will not be held against you or used in any detrimental manner.

It is crucial to understand that involvement in this study is voluntary. At any point during the research, you have the freedom to inquire about any aspects related to the study. You have the option to refuse to respond to specific questions. Furthermore, you can withdraw from the study at any point without facing any repercussions.

Discomfort risks

While responding to the questions, you may encounter some that can make you feel uncomfortable. In this case, you are permitted to skip those particular questions. It is within your rights to decline the interview altogether or refuse to answer any specific questions posed during the interview.

Benefits

By taking part in this study, you will contribute to our understanding of the factors that influence the effective implementation of the curriculum on emergency obstetrics and neonatal care, not only in Meru, Kenya but also in other LMICs in Africa. Consequently, the findings from this research will have broad benefits for countries, communities, and individuals, leading to positive health outcomes.

Rewards

There are no incentives or rewards offered to respondents.

Confidentiality

Respondents' identity will remain anonymous in relation to the questionnaire, and the questionnaires will be stored securely at the University.

Contact Information

For any additional inquiries or concerns on your involvement in the study, kindly contact the following supervisors.

Dr. Susan Njuguna – njugunarsm@gmail.com

Miss Roselyn Odhiambo – roselyne.odhiambo@kemu.ac.ke

Participants Statements

I fully comprehend the information provided regarding my involvement in the study. I have inquired about uncertainties I may have had, and those inquiries have been addressed to my contentment. I am willingly opting to take part in this study, understanding that my personal information will be treated as confidential and kept private.

I can withdraw from the study at any point without facing negative repercussions in my workplace/school, as my decision will not influence how I am treated there.

Name of respondent..... Date Signature

Researcher's statement

I, Mirriam Muendi Kivuva, have effectively communicated to the participant, using language that they understand, about the study's procedures, including the potential risks and benefits associated with their involvement.

Name of Interviewer..... Date..... Signature.....

Appendix 4: Nurse Educator Questionnaire

The purpose of this questionnaire is to collect information on implementation of the curriculum on emergency obstetrics and neonatal care. It has several sections: demographics and the factors influencing implementation of the curriculum on emergency obstetrics and neonatal care. To protect your identity, you will not be required to provide any personal identification details. Kindly give us your honest responses. The entire exercise will take 20 to 30 minutes of your time. In case of any discomfort by the participant one is allowed to withdraw from the study.

SECTION A: Socio-Demographics

Kindly tick as appropriate

1. Indicate the Nursing School where you are working
 - a. Methodist College of health sciences ☐
 - b. Consolata Nkubu school of nursing ☐
 - c. PCEA Chogoria Clive Irvine College of Health Sciences ☐
2. Your gender is:
 - a. Male ☐
 - b. Female ☐
 - c. Other _____(Specify) ☐
3. Age in years 20-30 ☐ 31-40 ☐ 41-50 ☐ above 50 ☐
4. Highest level of education
 - a. Diploma ☐
 - b. Higher Diploma ☐
 - c. Bachelor's degree ☐
 - d. Master's degree ☐
 - e. Doctorate degree ☐
5. Years of teaching experience .
 - a. Less than 1 year ☐
 - b. 1-5 years ☐
 - c. 6-10 years ☐
 - d. 11-15 years ☐
 - e. More than 15 years ☐
6. Have you been trained on EmONC.
 - a. Yes ☐
 - b. No ☐
7. When trained on EmONC.
 - a. Less than 1 year ☐
 - b. 1-5 years ☐

- c. 6-10 years []
- d. 11-15 years []

SECTION C Factors affecting curriculum implementation on EmONC

Rate the following aspects of curriculum implementation EmONC by ticking the response that most represents your views. The responses range from 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly agree.

Factors		1	2	3	4	5
Nurse educators' factors	I am well trained in teaching EmONC					
	I do not have adequate experience when it comes to teaching EmONC to nursing students					
	I have required knowledge for teaching EmONC to nursing students					
	I am skilled, when it comes to teaching EmONC to nursing students					
	I do not incorporate latest research in teaching EmONC					
	I sometimes access resources that for effective teaching of EmONC					
	I have challenges in assessing nursing students' mastery of EmONC concepts.					
	I am effective in assessing students' mastery of EmONC skills					
	I apply innovative teaching methods for EmONC					
	I have opportunities for continuous professional development on teaching EmONC to nursing students					
	I have developed personal strategies to ensure quality in the teaching of EmONC across the nursing program					
	I have opportunities for collaboration with other healthcare institutions or organizations to improve the teaching of EmONC to nursing students					
	My role is not clear in terms of curriculum implementation in EmONC					
	I have not been trained on pedagogy skills for EmONC					

Academic training institution factors	The colleges provide adequate resources in the library to facilitate learning in EmONC					
	The college has a well-equipped skills lab to facilitate implementation of the curriculum on EmONC					
	The nursing academic training institution has well-trained faculty members who can effectively teach EmONC curriculum.					
	The nursing academic training institution provides opportunities for regular professional development opportunities for faculty members on EmONC.					
	The nursing academic training institution has a strong partnership with clinical facilities for clinical practice in EmONC					
	The academic training institution ensure that the EmONC curriculum aligns with the latest Nursing Council of Kenya requirements.					
	The academic training institution has policies that ensure quality in the teaching of EmONC across the nursing program.					
Student factors	Students are confident in their understanding of EmONC principles and practices.					
	Balancing EmONC coursework with other aspects significantly affects student performance.					
	The level of student engagement is not adequate to facilitate learning in EmONC					
	Nurse educators effectively support students in their classroom teaching in EmONC.					
	Nurse educators do not effectively support students in their EmONC clinical placements					
	Students perceive EmONC training as not relevant to their future nursing careers.					
	Students are motivated to learn the EmONC content					
	Students find the quality of EmONC curriculum delivery satisfactory.					
	Students' different learning styles are not considered when teaching EmONC					

	Students get constructive feedback on mastery of EmONC concepts					
Training hospital factors	The training hospitals where nursing students undergo their practical training in EmONC has adequate resources					
	The procedures at the hospital may impact the implementation of the EmONC curriculum.					
	Training hospitals have support programs in place that help educators effectively implement EmONC curriculum					
	Nursing students are not adequately assessed during their practical training in EmONC in the training hospitals					
	The training hospitals have challenges with nursing students' supervision during practical training in EmONC					
	Training hospitals have challenges or limitations related to the hospital's patient population that may impact the implementation of EmONC curriculum					
	The training hospitals have opportunities for collaboration to improve the implementation of EmONC curriculum					
	Training hospitals have challenges of staffing that may impact the implementation of the EmONC curriculum at the hospital					
	Training hospital do not have adequate preceptor expertise to facilitate learning in EmONC.					
	Training hospitals have challenges with nursing students' integration into the hospital's existing EmONC teams					
Curriculum implementation on EmONC	I am conversant with the various stages of the curriculum implementation process and the different actors involved in each stage.					
	Midwifery educators have increased the likelihood of successful implementation of the nursing curriculum on EmONC in faith-based nursing colleges in Meru County					
	Midwifery educators based at Faith-Based Colleges in Meru County continually evaluate the implementation of the					

	curriculum and make adjustments as necessary					
	I am able to effectively communicate the goals and objectives of the curriculum to various stakeholders for successful implementation					
	I am aware of the importance of understanding the complex nature of the educational system and the various factors that impact the implementation of a curriculum					
	Nurse educators responsible for implementing the curriculum in EmONC are always informed about any updates in the curriculum					
	Nurse educators pay attention to the prevailing educational policies, the beliefs and values of the community					
	In these institutions, necessary resources are not available to facilitate the proper implementation of the curriculum on emergency obstetrics and neonatal care					
	Our academic training institution and hospitals has provided us with the needed resources for proper curriculum implementation					
	Midwifery educators at Faith-Based Colleges in Meru County have communication skills					

Appendix 5: Key Informant Interview Schedule Consent Form

Kenya Methodist University

P.O. BOX 267-60200

Meru, Kenya

SUBJECT: INFORMED CONSENT

Dear Respondent,

I am Mirriam Muendi Kivuva, currently pursuing an MSc in Nursing Education at Kenya Methodist University. For my research project, I am conducting an investigation on the Factors Influencing the Implementation Curriculum on Emergency Obstetrics and Neonatal Care in Diploma Nursing Programs of Faith-Based Colleges in Meru County. The study will enhance our knowledge on factors that impact the implementation of the curriculum on emergency obstetrics and neonatal care within faith-based colleges in Meru County. Additionally, the findings will contribute to recommendations for improving the curriculum implementation in these institutions, ultimately enhancing the quality of midwifery education.

Voluntary Participation

Your participation in this interview is entirely voluntary. You have the right to refuse to participate or withdraw from the interview at any time without consequence. Your decision will not affect your relationship with the researcher or Kenya Methodist University.

Confidentiality

All information collected during the interview will be kept confidential. Your name and any identifying information will be replaced with pseudonyms to ensure anonymity. The interview recordings and transcripts will be stored securely and only accessible to the researcher and authorized personnel. Your confidentiality will be maintained to the fullest extent possible, except where required by law.

Purpose of the Interview

The purpose of this interview is to discuss the nurse educator, academic training institution training hospital and student factors that influence implementation of the curriculum in EmONC. The interview is expected to take approximately 20 minutes. To take part in this research, I will be asking you a series of questions regarding the implementation of the curriculum on emergency obstetrics and neonatal care. The interview will be audio-recorded for accuracy and transcription purposes. The recording will be used solely for research purposes and will be deleted upon completion of the study.

Please note that you can decline participation in the study. Your decision to not participate will not result in any negative consequences or impact your current roles. It is important to emphasize that your decision will not be held against you or used in any detrimental manner.

It is crucial to understand that involvement in this study is voluntary. At any point during the research, you have the freedom to inquire about any aspects related to the study. You have the option to refuse to respond to specific questions. Furthermore, you can withdraw from the study at any point without facing any repercussions.

Consent

By agreeing to participate in this interview, you acknowledge that you have read and understood the information provided in this consent form. You voluntarily agree to participate in the interview under the terms outlined above.

Contact Information

For any additional inquiries or concerns on your involvement in the study, kindly contact the following supervisors.

Dr. Susan Njuguna – njugunarsm@gmail.com

Miss Roselyn Odhiambo – roselyne.odhiambo@kemu.ac.ke

Participants Statements

I fully comprehend the information provided regarding my involvement in the study. I have inquired about uncertainties I may have had, and those inquiries have been addressed to my contentment. I am willingly opting to take part in this study, understanding that my personal information will be treated as confidential and kept private.

I can withdraw from the study at any point without facing negative repercussions in my workplace/school, as my decision will not influence how I am treated there.

Name of respondent..... Date Signature

Researcher's statement

I, Mirriam Muendi Kivuva, have effectively communicated to the participant, using language that they understand, about the study's procedures, including the potential risks and benefits associated with their involvement.

Name of Interviewer..... Date..... Signature.....

Appendix 6: key Informant Interview Schedule

❖ Nurse Educator Factors

1. What specific educator factors do you believe influence the successful implementation of the curriculum on EmONC within the nursing program, and what challenges have you encountered as a nurse educator in delivering curriculum on EmONC?

- i. *Level of training*
- ii. *Qualification*
- iii. *UpToDate information*
- iv. *Trainer knowledge/skill*
- v. *Training Knowledge*
- vi. *Friendly environment*
- vii. *Level of education, age*
- viii. *Skills*
- ix. *Trainers' unpreparedness*

Challenges

- i. *lack of practicality*
- ii. *Lack of adequate experience*
- iii. *Incorporation or implementation of research lacking*
- iv. *Lack of Continued medical education*
- v. *Lack of specific cases during clinical rotation*
- vi. *High number of students during clinical rotations*
- vii. *Demonstration not possible due lack of resources in skills lab and clinical area*
- viii. *Time factor in coverage of curriculum*
- ix. *Lack of technical experience*
- x. *Lack of seminars*
- xi. *Lack of technology*
- xii. *Poor policies*
- xiii. *Lack of educators' motivators*
- xiv. *Lack equipment in lab*
- xv. *Practicability in care*
- xvi. *Poor structure- babies are crowded*
- xvii. *Lack of adequate nurse educators*
- xviii. *Increasing number of students*
- xix. *Teaching methods -mostly use lecture method*

❖ **Nursing Training Institutional Factors**

2. How would you describe the overall environment and support provided by the nursing academic training institution for the implementation of the curriculum on EmONC?
 - i. *Well to implement curriculum in EmONC, trainers adequate, equipment for practical available but sometimes not used in learning due to lack of adequate time.*
 - ii. *Trainers have no workshop- no support -CPD*
 - iii. *Offer support to trainers*
 - iv. *Less resources, equipment*
 - v. *Not bad but lack seminars*
 - vi. *Not finest good some resources lacking*
3. In your opinion, what institutional policies, resources, or structures impact the implementation of the curriculum on EmONC?
 - i. *Lack of emphasis on practical in EmONC*
 - ii. *No policies on this*
 - iii. *Books available others not available*
 - iv. *Computer available for studies and eBooks*
 - v. *No- there is support from the institution and clinical areas in regards to curriculum implementation*
4. Are there any collaborative efforts or partnerships between the college and healthcare facilities that contribute to the successful implementation of the curriculum on EmONC?
 - i. *Yes, follow up, handover for further training*
 - ii. *Yes, Academic training institution and hospitals have MoUs*
 - iii. *Yes- with hospitals they have*
 - iv. *95% mentorship from hospitals*
 - v. *Yes several-Jacaranda Health clinical areas*

❖ **Student Factors**

5. From your experience, are there any specific characteristics or factors among the students that influence their learning experience in EmONC?

- i. *Interest factor*
- ii. *Attitude of students*
- iii. *Number of students not manageable*
- iv. *Fees payment*
- v. *Students –low/high*
- vi. *Culture- limitation*
- vii. *EmONC –good motivation*

❖ **Training Hospital Factors**

6. In your opinion, what support or challenges do students face in clinical settings while implementing the curriculum on EmONC?

- i. *Good support, assessment, assignment*
- ii. *Very minimum -*
- iii. *Adequate support- such as clinical instruction, student mentor in various facility*
- iv. *Get in touch observe and see*
- v. *Well financed*
- vi. *Lack of exposure -Emerging cases, practicability*
- vii. *Lack of motivation*
- viii. *Shortage of clients*
- ix. *High number of students*
- x. *Work in shift*
- xi. *No resources-instruments*
- xii. *Students number so high and none proactive may not learn*
- xiii. *Lack of mentorship because of too much on trainers*
- xiv. *Do not handle emergencies*
- xv. *EmONC has not been taken seriously, not UpToDate*

Closing:

7. Based on your expertise, what recommendations or strategies would you suggest to enhance the successful implementation of the curriculum on EmONC in faith-based nursing colleges in Meru County?

- i. *Training both the teacher and student for updated management*
- ii. *Constants CPD on workshop*
- iii. *Good collaboration between mentors and trainees*
- iv. *Increase availability of equipment in skills lab and clinical areas*
- v. *Increase Number of trainers*
- vi. *Improve on teaching method, increase number of hours covered so that student benefit*
- vii. *More infrastructure in skills lab and clinical areas*
- viii. *Trainers and students need to be UpToDate on current affairs in EmONC*
- ix. *Identify other institution where they are taught currently on EmONC*

Conclusion: Thank for your participation and insights, confidentiality of your responses is assured.

Appendix 7. Reliability Assessment of Data Collection Instrument

Table 4.1: Cronbach Alpha for Reliability Assessments

Variables for Trainers	Number of items	Cronbach Alpha Values
Nurse educators' factors	14	0.783
Academic training institution factors	7	0.718
Trainers' factors	10	0.751
Training hospital factors	10	0.908
Curriculum implementation in EmONC	10	0.801
Variables for Nursing Students	Number of items	Cronbach Alpha Values
Nurse educators' factors	12	0.796
Academic training institution factors	13	0.754
Trainers' factors	7	0.835
Training hospital factors	7	0.723
Curriculum implementation in EmONC	10	0.758
Researcher, (2024)		

As presented in Table 4.1, Cronbach alpha values for all the variables; Nurse educators' factors, Academic training institution factors, Trainers factors, Training hospital factors and curriculum implementation were greater than 0.7. From these results it can be concluded that the constructs measured had the adequate reliability for the subsequent stages of analysis since all the Cronbach Alpha values were greater than 0.7.

Appendix 8: KeMU Ethical approval



KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya

Fax: 254-64-30162

Tel: 254-064-30301/31229/30367/31171

Email: deanrd@kemu.ac.ke

DIRECTORATE OF POSTGRADUATE STUDIES

January 22, 2024

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

Dear Sir/Madam,

RE: MIRRIAM MUENDI KIVUVA – (REG. NO. MSN-3-1337-3/2019)

This is to confirm that the above named person is a bona fide student of Kenya Methodist University, in the School of Medicine and Health Sciences, Department of Nursing undertaking a Master's Degree in Nursing Education. She is conducting research on: **"An Investigation of Factors Influencing Curriculum Implementation on Emergency Obstetrics and Neonatal Care for Faith-Based Diploma Nursing Students in Meru"**.

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

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

Any assistance accorded to her will be appreciated.

Yours sincerely,

 JAN 2024

Dr. John M. Muchiri (PhD)
Dean, Postgraduate Studies

Cc: Dean SMHS
CoD, HSM
Program Coordinator -HSM
Student Supervisors

Appendix 9: NACOSTI license

 REPUBLIC OF KENYA Ref No: 105486	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION Date of Issue: 07/February/2024
RESEARCH LICENSE	
	
This is to Certify that Ms. Mirriam Muendi Kivuya of Kenya Methodist University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Meru on the topic: AN INVESTIGATION OF FACTORS INFLUENCING CURRICULUM IMPLEMENTATION ON EMERGENCY OBSTETRICS AND NEONATAL CARE FOR FAITH-BASED DIPLOMA NURSING STUDENTS IN MERU for the period ending : 07/February/2025.	
License No: NACOSTI/P/24/32707	
105486 Applicant Identification Number	<i>Walter Muriuki</i> Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Verification QR Code 	
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	
See overleaf for conditions	

Appendix 10: Permission from faith-based colleges



P.C.E.A CHOGORIA HOSPITAL
P.O. Box 35-60401 Chogoria, Kenya.
Tel: 0717 138 452, 0734 192 208, (020)5146700
Email: cic@pceachogoriahospital.org Website- www.pceachogoriahospital.org

CLIVE IRVINE COLLEGE OF HEALTH SCIENCES

Miriam Muendi Kivuva
Kenya Methodist University

29th March 2024

Dear Miriam,

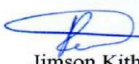
RE: ACCEPTANCE TO CONDUCT RESEARCH STUDY

I am writing to formally acknowledge receipt of your request to conduct research at Clive Irvine College of Health Sciences, as per your email dated March 24th. We are pleased to inform you that your proposal to investigate the actors influencing the implementation of curriculum on Emergency Obstetric and Newborn Care (EmONC) in faith-based colleges has been approved.

In granting you permission to collect data on our premises, we emphasize the importance of adhering strictly to the guidelines outlined in your NACOSTI permit. Specifically, we expect that data collection will be conducted without including personal identifier information to protect the privacy and confidentiality of participants.

Once again, congratulations on receiving approval for your research project. We look forward to seeing the outcomes of your work and its potential impact on the field of EmONC education.

Yours Sincerely,



Jimson Kithinji
Principal Tutor
Clive Irvine College of Health Sciences



Caring with love

1st Corinthians 13:13- these three remains faith, hope & love. But the greatest is love.



MAUA METHODIST HOSPITAL

P.O. Box 63-60600, Maua

Telephone: 064-21003 Mobile: 0724697053

Email: mmhinfo@mckmauahospital.org

www.mckmauahospital.org

February 26th, 2024

Approval letter to conduct a research study in MMH entitled: "An Investigation of Factors Influencing Curriculum Implementation on Emergency Obstetrics and Neonatal Care for Faith Based Diploma Nursing Students in Meru.

Dear, Mirriam Muendi Kivuva

Greetings to you from the Medical Director's office of Maua Methodist Hospital.

After carefully reading your proposal and after examining the relevant documents pertaining to research and modalities on how research is conducted in Kenya, after presenting the NACOSTI approval for your research, License No: NACOSTI/P/24/32707,

given the fact that your research does not touch directly on patients but seeks to assess health care givers (nurses for the purpose of this study), given the fact that the ethical board of the Kenya Methodist University sat and reviewed your proposal as it is proven with the approval letter issued to you on the 22nd of January, 2024, approval number: KeMU/ISERC/MSN/01/2024, the office of the Medical Director on behalf of MMH wishes to grant you access to the facility to conduct your research.

You will be requested at the end of your research to provide a copy to the Hospital of your research and major findings of your research.

You are required to observe ethical considerations as stipulated by the University you are affiliated to.

Kind regards

Dr. Gad IGIRANEZA,

Family Medicine Consultant

Medical Director, Maua Methodist Hospital

