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A Model to Strengthen the Quality of Midwifery Education: A Grounded Theory Approach

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Abstract: A well-educated midwifery workforce is critical to providing quality health services. However, the quality of midwifery education in Nigeria is identified as a factor contributing to the country's poor maternal and neonatal health outcomes and inability to meet global development goals. This study aimed to analyse the process used to strengthen the quality of midwifery education with the aim of generating a middle-range model to prepare competent and confident midwifery graduates. The Strauss and Corbin version of the Grounded Theory approach that is underpinned by the Social Constructivism Paradigm was adopted for this qualitative study. Strengthening the quality of midwifery education (SQME) emerged as the model's core phenomenon. Major concepts, including the midwifery education context, nature of the curriculum, SQME process, pillars, and outcomes, supported the core phenomenon. Strengthening the quality of midwifery education can be achieved over a long time provided the pillars of SQME are deep-rooted to sustain the process of strengthening the quality of midwifery education. The model can be used to strengthen the quality of midwifery education and may be adapted to nursing/allied health programmes in Nigeria and other developing countries.

Keywords: grounded theory; midwifery education; model; strengthen; quality

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1. Introduction

Improving maternal and newborn health worldwide is dependent on the provision of high-quality healthcare by midwives and others [1,2]; however, quality care is best provided by midwives who have received high-quality education regulated in accordance with international standards and are integrated into well-functioning health systems. Recently, midwives have been recognised to deliver nearly 90 per cent of the necessary sexual and reproductive health services [3]. Their critical role in ensuring the safety and well-being of mothers and newborns is recognised in achieving the Sustainable Development Goals (SDGs) [4]. SDG 3.1 aims to reduce the global MMR (Maternal Mortality Ratio) to less than 70 per 100,000 live births by 2030 [5,6]. Unfortunately, Nigeria is not making progress in meeting SDGs with an alarming MMR, which currently stands at 814 per 100,000 live births—more than three times the global average of 211 per 100,000 live births [7]. Addressing the quality of midwifery education in Nigeria is critical to improving maternal health outcomes and accelerating progress towards the SDG 3.1 target [8].

The midwifery education premise of equipping students with the necessary clinical skills required for their future roles as professional midwives is founded on competency-based education [9,10]. Competency-based education (CBE) is an outcome-based pedagogical approach to teaching, learning, and assessment, where outcome refers to the expected competencies of an individual who has undergone an educational programme and should be able to practise the roles and duties as required by the discipline [10]. The concept of competence in midwifery practice is the technical skill and professional ability of midwives to ensure safe and quality maternal and neonatal health care are provided

to women and families satisfactorily, as expected according to Essential Competencies for Basic Midwifery Practice [11,12]. Essential Competencies for Basic Midwifery Practice is the outcome of the competency-based education midwifery programme, while competency-based education is the basis for the provision of quality midwifery education [10,13,14]. However, the core features of competency-based education are adult learning theories and student-centred learning, where educators act as facilitators and role models and adult learners are actively involved and responsible for their learning [10]. Therefore, midwifery educators, that is, the academic and clinical teachers/preceptors referred to as faculty, are required to apply competency-based approaches in the teaching and clinical facilitation of midwifery students to guarantee the competence of graduating midwives [15]. These approaches are outlined in the document 'Core competencies' for midwifery educators. They are provided to serve as guidelines for nations to prepare midwifery educators with core competencies through quality educators programmes [16]. However, countries are to review and adapt the document to strengthen the existing midwifery programme or prepare a new midwifery programme for educators [17,18]. Despite these efforts, multiple methods and approaches are followed by different countries to prepare midwife teachers [19]. In many low- and middle-income countries (LMICs), just 6.6 per cent of their faculty had formal preparation in education to be a qualified educator to continue in the education path [16]. Yet midwifery educators, including clinical preceptors, are expected to be theoretically and clinically sound to effectively apply the pedagogy of CBE using various teaching methodologies to prepare competent and confident midwives [20]. Unfortunately, in most African countries, especially Nigeria, the midwifery educator-to-student ratio is usually high compared to developed countries as it is coupled with the policy to increase student quota in educational institutions to boost the dwindling health workforce [21]. Furthermore, there is a pandemic of brain drain, where experienced midwives, including clinical preceptors and midwifery educators, leave for high-resource countries [22,23]. The resulting impact is that inexperienced educators and clinical preceptors who themselves would benefit enormously from the expertise of an experienced midwife or educator are saddled with the responsibility of training students at an immature stage. This affects the quality of midwifery education [24,25]. Without enough competent educators, it is almost impossible to prepare additional midwives who are sufficiently competent to render quality maternity care to women and families [26,27]. Apart from addressing the quantity of midwifery educators and student quota, it is equally important to strengthen the quality of midwifery education turning out the future midwifery workforce [28]. In meeting these deficiencies, the available resources and capacity of the training institution should be given utmost consideration because challenges relating to resources and infrastructure adversely affect students' learning experiences and limit opportunities to gain practical experience [19]. However, the literature reports that the quality of midwifery education varies significantly globally in length and content [29]. In Nigeria, there are multiple routes to becoming professional midwives. Students may undergo a three-year basic midwifery programme or complete an eighteen-month midwifery course after basic nursing training or an integrated nursing and midwifery programme through a four-year higher national diploma programme or five-year university programme. To date, there are 111 schools of basic/post-basic midwifery and forty-three universities approved by the Nursing and Midwifery Council of Nigeria (NMCN) to train midwives [30]. The NMCN data repository reported 1204 midwifery educators, which is inadequate for the 154 training institutions across the country, of which the institutions can produce an average of fifty to 150 midwives yearly [31]. However, the number of midwives that institutions can turn out annually is determined by the approved quota by NMCN and student enrolment for a particular institution. The quality of midwifery education in Nigeria is identified as a factor contributing to the country's poor maternal and neonatal health outcomes and inability to meet global development goals, despite the benefits associated with investing in high-quality midwifery education [32]. A well-educated midwifery workforce is critical to the provision of quality health services [9]. This study aimed to analyse the process used to strengthen

the quality of midwifery education with the aim of generating a middle-range model to prepare competent and confident midwifery graduates.

2. Material and Methods

2.1. Study Setting and Context

This research was conducted at one college of nursing, two schools of midwifery and four universities (three public and one private) across four states in Southwest Nigeria. This study was also conducted in hospitals to recruit newly graduated midwives and clinical preceptors in the health facilities where the students had their midwifery clinical experiences. To keep in line with GT, the researchers used multiple settings to recruit information-rich participants on the phenomenon under investigation.

2.2. Methodology

The Strauss and Corbin version of the Grounded Theory (GT) approach that is underpinned by the social constructivism paradigm was adopted for this qualitative study [33,34]. The Grounded Theory approach was used to gain in-depth new knowledge to develop a model to strengthen the quality of midwifery education in Nigeria, of which little was known.

2.3. Study Population and Sampling

The study population included midwifery educators, clinical preceptors, newly graduated midwives, and students of selected training institutions and hospitals. Purposive and theoretical sampling were used to recruit the participants for the study of interest. Purposive sampling guided the selection of participants based on their involvement with teaching and clinical facilitation of students, midwives who recently graduated, and final-year midwifery students. Theoretical sampling and data saturation (informed the decision to stop recruiting when no new concept emerged) guided the recruitment of participants to conclude the sample size. The final sample size was made up of twenty-two midwifery educators, eighteen clinical preceptors, eighteen newly graduated midwives, and twelve focused group discussions with students. The collection and analysis of data were performed concurrently, as recommended in GT.

2.4. Data Collection and Analysis

Data were collected using multiple methods such as in-depth interviews, focus group discussions, and document analyses over a period of twelve months. The participants comprised 22 midwifery educators,18 clinical preceptors, 18 newly graduated midwives, and 72 final students. The participants had the option to decide freely whether to participate in this research, and consent was obtained before the interviews began. They were informed of their right to withdraw from this study anytime they so wished without prejudice. To ensure that data were not traceable to the participants, the researcher anonymised the transcripts. Rich informants were recruited by being a midwifery teacher with a minimum of one year experience, clinical preceptors in hospitals where students had clinical postings, and newly employed midwives who graduated within a year and final year students.

The focused group discussions (FGDs) were conducted in students' classrooms, and for the individual interviews, in quiet offices within the institution. The interviews lasted forty-five to ninety minutes and were all audio recorded for ease of analysis of qualitative data. The interview guide included questions on the participant's midwifery education experiences; the participant's roles and responsibilities in training, and clinical facilitation of students; the conceptualisation of the quality of midwifery education facilitating and enabling factors of quality midwifery education; and strategies to strengthen the quality of midwifery education. From these main questions asked, the researcher further probed to gain more insight and clarity on the topic of discussion. The researcher started observations and conducted the interviews concurrently with document analysis. The data from the observations, document analysis, and interview guides informed the development of the

model. Data analysis was performed simultaneously with data collection through a coding process based on the Grounded Theory approach [35]. The coding process involved developing concept and category saturation through three stages of open coding, axial coding, and selective coding. Open coding was performed by microanalysis of the fragmented data such that the researcher asked questions to make comparisons between concepts in terms of similarities and differences to make meanings of the data until saturation was reached [36]. Axial coding was employed by linking categories depending on their properties, and dimensions were merged to fit into a defined category to understand and ascertain the relationships among them. A logical model was constructed to describe the linkages and relationships among categories using the Strauss and Corbin (1998) coding paradigm framework [33]. The findings were discussed following the component for developing a model, as illustrated by Chinn and Kramer (2013) [37].

2.5. Trustworthiness

The Trustworthiness of the findings of this GT study was ensured by credibility, transferability, dependability, and confirmability [38,39]. Credibility was assured through data and method triangulation, as data were collected through interviews, focus group discussion, observation, and document analysis to clarify and validate the meaning of the phenomenon leading to the development of a middle-range theory. Dependability was ensured through quality data checks, peer review of data, and peer examination performed with research team members who are familiar with the Grounded Theory methodology to discuss the research process to ascertain dependability. Confirmability was established by the audio recording of interviews, field-taking memos and verbatim transcription of data, and memoing. The transferability criterion was ensured through a 'thick and dense' description of the research process, data collection method, and final reports of this study and purposive sampling employed by choosing the key informants and the study settings [39,40].

2.6. Ethical Consideration

Ethical clearance was obtained from the University of KwaZulu-Natal Human and Social Sciences Ethics Committee (HSSREC/00005092/2022) and gatekeeper permission from respective educational institutions and health facilities. Ethical principles guided the conduct of this study—the ethical principles, as described by Lincoln and Guba (1985), of credibility, transferability, dependability, confirmability, and triangulation were observed and strictly adhered to throughout this study [41].

3. Findings

The model was developed from the findings from open coding, selective coding, and axial coding [33,34]. This article provides a summary of the findings presented in two other manuscripts (exploring the conceptualisation of SQME and strengthening the quality of midwifery education—both unpublished). These other manuscripts served as the starting point and formed the basis of the model illustrated in this article. The schematic diagram of the elements of the model following Strauss and Corbin's paradigm [33] is presented in Figure 1. These elements include the antecedents, the contextual conditions, the core phenomenon, the actions and interaction strategies, the intervening conditions, and the outcomes. Tables 1–3 summarise the extracts from the multiple data sources, which informed the development of the model.

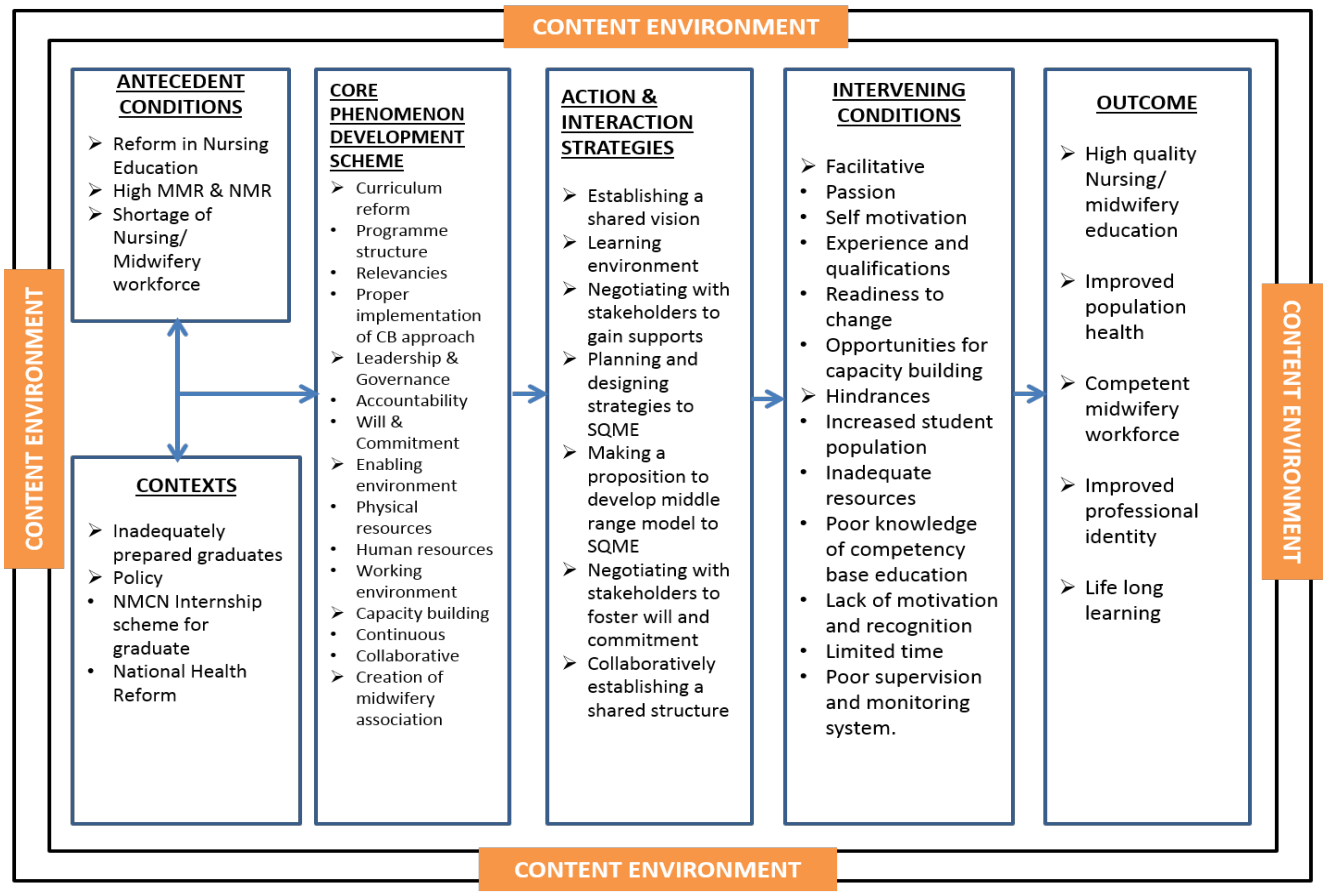

Figure 1. Visual representation of the summary of findings in line with Stauss and Corbin's paradigm.

Table 1. Extracts of the contextual conditions forming the basis for developing the model.

Context	Extracts
Inadequately prepared graduates	*I will not mention the name, the students wrote the last general nursing examination and the school had 100 per cent, so they are all RNs, they are posted for the midwifery exam, and the lecturer was saying they should be in the labour ward only, I asked her why she said it was catching of baby only or whatever, no these students are leaving they are finalist, they don't know where the antenatal clinic is? They do not know what they are doing in the antenatal ward. Let us see in a few months, we will call them qualified midwives. They will go for exams and pass because it's OSCE. (ME5)*
Policy: Internship scheme for nurse graduates	*The Nursing and Midwifery Council of Nigeria as part of the Nursing education reforms is working with all stakeholders to ensure that internship scheme for fresh Nurse graduates is commenced in Nigeria. This is necessary to improve the competence of these new nurse practitioners thereby contributing to excellent Nursing care. This is necessary because in university-based education there is demand for liberal knowledge acquisition from undergraduates and they are usually under intense learning pressure with inadequate time for integration of theory and practical knowledge. The period of internship will therefore help to strengthen the skills of the practitioner leading to quality service. (N&MCN: 2021)*
National health reform	*The institution should reduce the admission quota because of the shortage of staff. (CP14)*

Table 2. Extracts of the core phenomenon forming the basis for developing the model.

Core Phenomenon	Extracts
Curriculum reform	*The NMCN should review its curriculum to set its standards such that we can perform at international standards (CP12)* *the nurses should allow the students to practice especially the interns, and the number of lecturers taking one course should be reduced not one lecturer to 5 courses, try to expose us to midwifery from 200L, more clinical posting. (NGM11)*
Leadership and governance	*some of the colleagues do not know that being a preceptor doesn't have any special benefit attached to it so if anything, happen to the student they just send them to me but some are very cooperative they help us with teaching the student. Some students are lazy they are not ready to learn we make extra effort (CP14)*
Capacity building	*going to seminars and workshop to learn new practices and conduct research to discover new methods. Even the use of oxytocin someone was telling me that is too much but not enough research (CP10)*
Enabling environment	*the administrator should provide an enabling environment, the environment that they can call us, we call rapport together, they can feel our pulse, they can feel our needs and they provide for us even if they are not ready to, let them provide explanation so that we will not look neglected (ME7)*
Creation of a midwifery association	*The remuneration is not there. And then we don't have an association. Every other specialty in nursing has associations, when it comes to midwifery, no association is unique to us and that draws us back. If the peri-operative nurses want to do something now, they go as a body to fight who is fighting for midwifery. There should be a distinction between midwifery and general nursing. Midwifery is distinct and should be treated as such (ME13)*

Table 3. Extracts of the outcomes forming the basis for developing the model.

Outcome	Extracts
Improved quality of midwifery education	*what we can do to strengthen it is if institutions can sponsor staff for further education, like conferences, workshops, PhD, both locally and internationally, if you are exposed, more knowledge is added to you, it is not for you, it is for the students, you come to class, demonstrate it, when you are exposed to new things, you know how to, you know the updated things, if these can be done, let encourage ourselves to do more, to know more, to attend conferences, it is not a waste of time, it is not a waste of resources, it will still count and it boosts the individual's pattern of teaching and at the same time improve the quality of midwifery education (ME7)*
Improved population health	*to strengthen midwifery education is for our leaders to be focused, on either nursing or midwifery education, you have 100 doctors and you don't have qualified midwives in the clinical areas, you're just wasting your time if you have many lectures without being qualified midwifery educators which means gong for nursing tutor programme or PGDE to become registered as an educator, it will amount to nothing (ME2)* *strengthening the quality of midwifery education is very important, to be able to give them quality knowledge, because if you give them poor knowledge. They will give back to you, with poor care. And our goal is that we want midwives that will provide quality care to mothers and their children. (ME15)*
Competent midwifery workforce	*but imagine all of us now 'japa' means the new set that is coming will also start all over again they will do their own, trial and error, is this going to work because no, we carry our experience to wherever we are going we are not going to leave it behind, but if we are working with a lot of newly employed, new graduate, with our experience and expertise we can pass it on, this is how to do it, this is how you will do it, get it done better and faster, so if the government can help us in this area, it will strengthen the workforce (ME6)*

Table 3. *Cont.*

Outcome	Extracts
Improved professional identity	*midwifery education to me it's a good one but I'm afraid in Nigeria you know we have, jack of all trades, masters of none, you will be the one that will be a registered nurse, registered midwife registered public health and so many things there is no continuity, it will help to focus on midwifery (ME1)* *Strengthening the quality of midwifery education will improve the public image of the profession and may encourage students to have an interest in specializing in midwifery and not for certification as it is nowadays, and those that have left for other well-recognised specialties may want to retrace their steps back to midwifery because it will evolve to an enviable position (CP10)*
Lifelong learning	*like I told you, I came into academics as a clinical instructor having BNSc alone so I pursued my master's degree I want to get to the peak of my career, but I have not, I am not there yet, I am aiming at getting there one day because I can't make any change if I'm not actively involved. I keep on improving on how to help the student better. because one thing I understand is that you can change things if you are not there, it is when you are there you are part of the managerial people that you can make your own, you can give your opinion and it may be taken and you cause a change, so I've gone through my master's program, in quest of knowing more about those students and how to teach them, that was what made me go for my PGDE, that let me know them as an individual, let me see how I can help them, I pursued my PhD and I'm not resting (ME7)*

4. Discussion

This section followed the six components of development by Chinn and Kramer (2013), which are (a) purposes of the model, (b) concepts, (c) definition of concepts, (d) relationship statements, (e) structure of the model, and (f) assumption(s) of the model [37].

4.1. Purpose of the Model

According to Chinn and Kramer (2013), the purpose of the model explains the context and situation within which the model applies [37]. Therefore, the main purpose of developing this model was to explain the process of strengthening the quality of midwifery education with the following aims:

a. To provide a framework that may be used as a guide for SQME for pre-service and in-service education.
b. To be used by midwifery educators, curriculum developers, and policymakers as a guide for SQME and to provide a guide.
c. To answer the WHO's call for more data on strengthening the quality of midwifery education in developing countries [9]. Hence, the model will contribute to the limited body of knowledge in this area.

4.2. The Concepts of the Model for SQME

Concepts are defined as complex mental formulations of experience, the entirety of what is perceived of the phenomenon [37]. Strengthening the quality of midwifery education is the core concept in this middle-range model. Supporting this core concept are the following concepts, (a) context/environment, (b) nature of the curriculum, (c) action and interaction strategies, (d) pillars, and (e) outcomes. The core concept was systematically linked to several sub-concepts according to Strauss and Corbin's paradigm.

Core Concept

In this study, the core concept of strengthening the quality of midwifery education is conceptualised within the midwifery education context and is process- and product-driven. The process illustrates the planning and designing of SQME and the process of agreement and adoption of SQME by relevant stakeholders. The product result of social interaction and collaboration at every stage of trial and reconstructing strategies strengthens the quality of midwifery education. The core concepts of SQME by the participants are (a) curriculum

reform, (b) leadership and governance, (c) enabling environment, (d) capacity building, and (e) the creation of a midwifery association.

Curriculum reform

It emerged from the data that the curriculum needs to be reformed to competency-based education that is responsive and well-structured to students' educational needs. From the various data sources, it was apparent that the curriculum is content-overloaded and lacks the structure of a competency-based curriculum. The data further implied that the competency-based approach should be properly implemented to be effective in preparing competent and confident graduates. The participants suggested that content should be reviewed or the midwifery programme extended to accommodate the proper integration of CBC to ensure graduates acquire the relevant knowledge and skills to become competent and able to adapt to a changing healthcare system nationally and globally. A further finding revealed that a competency-based curriculum is responsive to meeting the student learning needs even with the increased population as learners with this approach are encouraged to become actively involved.

Leadership and governance

It emerged from the various data sources that strengthening the quality of midwifery education was interpreted as having transformative and visionary leadership within the midwifery education context. A transformative leader, according to some participants, will inspire, motivate, and secure stakeholders/administrators' commitment and political support through creative collaboration and other strategies to work toward a shared goal. A transformative leader was described as an accountable leader who ensures quality assurance protocol is strictly adhered to by all faculty members to achieve the organisation's vision through teamwork.

Enabling environment

The data revealed that SQME was conceptualised as the provision of an enabling environment, which is far from the current reality. The enabling environment was stressed as being critical to SQME. The midwifery educator defined an enabling environment as a good working environment where all the needed resources (physical, human, and material) are provided and are functional, and where they are motivated, encouraged, and acknowledged. The students reported a conducive, safe, and welcoming learning environment where the necessary facilities and equipment and competent educators were sufficient to facilitate learning. They further described an enabling environment as a welcoming and safe environment where they are supervised and guided to competency level in practicum and mastery of subject matter with love and respect.

Capacity building

It merged from this study that faculties will benefit from collective collaboration to align theory and practice, research, teaching methodology and integration of a competency-based approach to student-centred learning.

Creation of a midwifery association

The need for a midwifery association that is separate from the umbrella body—NANNM (National Association of Nigeria Nurses and Midwives)—emerged from the findings. The creation of the association will empower the association to function in its capacity to discuss and negotiate better welfare packages and tackle other challenges peculiar to midwifery practice in Nigeria.

Midwifery education context

Context refers to the environment in which core concepts are developed. According to this middle-range model, the process of developing SQME within the Nigerian context takes place within certain situations. Therefore, the antecedent conditions for SQME will be considered. These include high MMR and Neonatal Mortality Rates (NMRs), an increased

demand for health services, shortages of healthcare workforce, and inadequately prepared graduates. Nigeria is among the countries in the Africa region with the highest MMR and NMRs. Placing such demand on the health system is an enormous challenge to the system. Meeting this demand has been a great challenge over the years as population growth increases with changing health conditions, which in turn requires modern and evidence-based management systems to be in place. The World Health Organisation calls for countries to create initiatives to make up for the shortage of workforces, such as training the lower cadre of health workers and increasing student intake into health professional education. Several factors have been identified that contribute to poor population health. Some of these factors include a severe shortage of the healthcare workforce, especially midwives, and incompetent midwives providing maternity services that are of low quality.

Nature of the curriculum

The curriculum is a systematic and organised planned experience where students are taught and trained to become competent. The curriculum guides the educator in teaching and engaging the students actively to participate in the learning process. The curriculum's nature is described as engaging, where teachers facilitate teaching and learning to prepare competent midwifery graduates. This type of curriculum is described as competent-based, relevant, and responsive to the student's and the country's needs. The curriculum, according to the participants, should be well-structured to include content like after theoretical learning, the student proceeds to practical learning sites, allowing smooth transitioning and aligning the practice with theory. The curriculum should have learning objectives for clinical experience that will guide their clinical postings. The participants reported that they were always confused about what they would learn at each posting and that the midwives assumed they must have mastered all the procedures because of their level. Clear objectives would guide the midwives to facilitate their training more effectively. It emerged from the data sources that the student instruction, such as students' logbooks, should be reviewed to contain tools for proper assessment of competency at the end of each posting.

Action and interactional strategies

Strengthening midwifery education quality is referred to as action and interactional strategies.

Establishing a shared vision—Establishing a shared vision is the immediate strategy in which the participant reflectively justifies the need to strengthen the quality of midwifery education.

The learning environment: The data sources identified the learning environment as the classroom and the clinical setting. The participants expressed collaborative synchrony between the learning environments to maximise the learning experience or else the wide gap between learning and practice will continue to widen and may not be reconcilable.

Negotiating with stakeholders. Negotiating with the stakeholders is important to gain and build trust. During the negotiation process, the participants communicate and deliberate on ways to achieve the shared vision.

The planning and designing strategies followed negotiations with stakeholders. The idea to develop a model was conceived to serve as a local guide for SQME. Negotiating with stakeholders should continue to sustain will and commitment to SQME.

Collaboratively establishing a shared vision was achieved after several debriefings with the stakeholders, and an agreement was reached that informed the need to involve all relevant stakeholders to align the vision of SQME with the organisational faculty, students, and other health professionals. This should be quality-driven and be accountable for delivering and ensuring other quality midwifery education. A quality assurance team agreed to assist in achieving the shared goal. The team was constituted by each stakeholder being represented. The team's activities are committing to regular monitoring and evaluation to ensure quality, ensuring compliance, and establishing a culture of quality in theory and practice with time. The essence of a transparent and effective quality assurance system

from NMCN (Nursing and Midwifery Council of Nigeria) to educational institutions is key to strengthening the quality of midwifery education. It will increase public confidence and promote recognition of the profession as being efficient and able to provide quality services. The data sources showed that the accreditation system of NMCN was weak. The suggestion of unscheduled visits for monitoring and evaluation was reported. The educational institution would be in check and serious about keeping up the expected standard.

Pillars

The pillars for strengthening the quality of midwifery education are identified as follows:

Quality assurance system

The quality assurance system is designed to support the faculty in delivering high-quality midwifery education to promote trust and confidence in the services of midwives. All staff must be involved in the quality assurance system to promote quality culture in the faculty. The quality assurance vision and policy statement must align with the national quality policy and implementation strategies by NMCN. The quality assurance team comprises the management, administrators, faculty, students, women, and other relevant stakeholders. One of the aims of the quality assurance system is to promote collaboration within the faculty necessary to bridge the gap between theory and practice relevant to SQME. The team drafts a document describing members' roles and responsibilities. The team is responsible for setting and maintaining standards, executing plans, allocating funds, delegating tasks, and maintaining accountability. The quality assurance team must be committed to the job description to achieve success.

The nature of leadership

Motivating, inspiring, and directing people and groups towards shared objectives are all characteristics of effective leadership. A transformative and charismatic leader who has a vision of sustaining SQME and who is able to collaborate with administrators, policymakers, and other relevant stakeholders to gain their support and commitment to SQME is critical for strengthening the system. A transformative leader will promote an enabling environment for staff to be motivated to do more for everyone and for staff to be responsible and accountable for achieving this shared vision.

Enabling environment

With the provision of an enabling environment, the faculty is guaranteed that the goal is close to being achieved. Currently, the lack of all the necessary equipment and infrastructures to work and discharge duties effectively is a common feature in all the research settings. This is a barrier to SQME and demotivating to a dedicated faculty. The inadequate provision of resources makes work slow and ineffective, and the quality of graduates prepared is not competent enough to make a formidable midwifery workforce to alleviate women's and family's health issues.

Implementation of a competency-based curriculum

The proper implementation of a competency-based curriculum will be effective in an enabling environment. Educators should be educated on the various teaching methodologies for competency-based education and the integration of student-centred learning into a competency-based curriculum. The curriculum development process should be followed to develop a competency-based curriculum. Educators should be educated on the implementation of CBC to allow for uniformity in the training and practice according to the ICM global standard of midwifery education, which emphasises the essential competency of basic midwifery practice and the WHO's prototype for midwifery education in the African region.

Committed and motivated actors

A committed and motivated faculty dedicated to teaching students using a competency-based approach should be the goal. The faculty responsible for student supervision and training to competency in midwifery practice should ensure students are committed to their education and actively participate in their learning activities. Teachers should be motivated to update their knowledge and skills.

Collaboration and partnership

Intra- and interprofessional collaboration and partnership are critical for the growth and strengthening of midwifery education. Interprofessional collaboration and partnerships to breach the gaps in areas of deficiency, such as aligning theory with practice, research, and grant partnerships with local and international organizations for support, are important to SQME.

Continuous support for faculty

The continuous and regular training and retraining of faculty cannot be over-emphasized. The faculty must be supported with opportunities for further education, workshops, and seminars, to stay motivated and encouraged to do more.

Midwifery association

The challenges facing the midwifery profession make it unattractive. Many complete the course for a certificate or a route to become a nurse. Forming a midwifery association will give them recognition, and many who have left midwifery can be recovered. This pillar will strengthen midwifery education and allow the midwifery speciality to be recognised as one and able to exercise the full scope of practice.

Outcome

Faculty educators who are experienced, well-educated, and familiar with the use of the competency-based curriculum used for teaching and clinical facilitation of students will sustain the quality of midwifery students. CBC enables students to participate actively and be responsible for their learning, thus promoting self-directed learning where students become critical thinkers and competent graduates. Competency-based education. being the global standard for midwifery education, ensures competency as the outcome of a training programme. High-quality and competency-based midwifery education will birth competent and confident midwifery graduates. A collection of competent graduates will make up a competent midwifery workforce that is able to meet the population's health. Educated midwives are empowered to champion the cause of the profession to recover its identity. The regular and continuous opportunities for capacity building for faculty make them relevant and responsive to the changing world, technology, and lifelong learners.

4.3. Concepts and Definitions

Core concepts and conceptual relationship

Concepts are described as intricate mental formulations of experiences that make up the entire phenomenon [37]. Concepts can be defined as either relatively associative (by how they are used within a theory) or relatively specific (by what they mean). In this middle-range model (Figure 2), concepts and sub-concepts were defined in a relatively associative manner. SQME is the core concept from which other concepts emerged. The emerging concepts in this article that support the core concept of 'SQME' are the (a) midwifery education context, (b) nature of the curriculum, (c) SQME process, (d) pillars, and (e) outcomes.

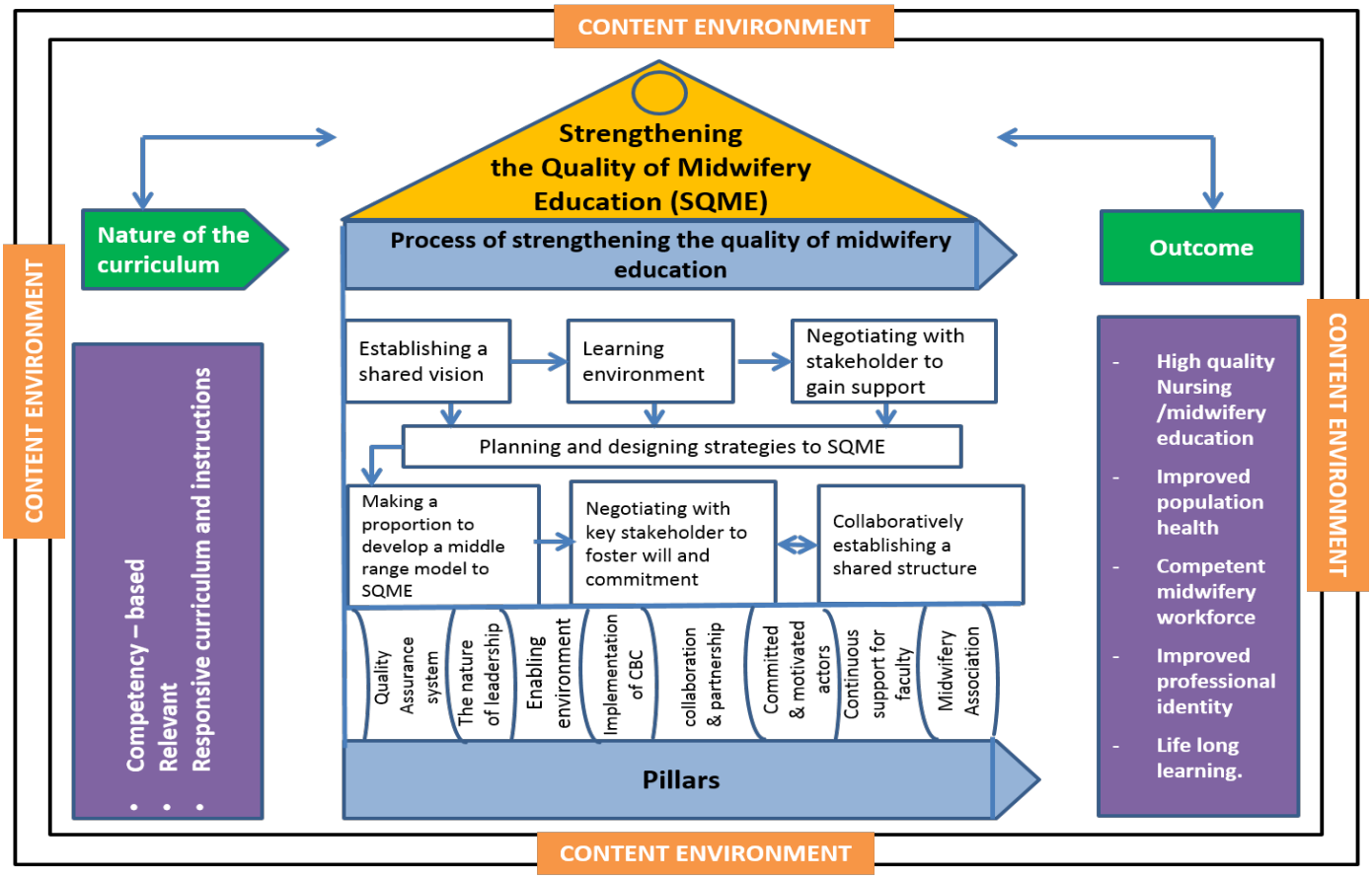

Figure 2. A model to strengthen the quality of midwifery education.

4.4. Description of the Model

The middle-range model presented in this article (Figure 2) is aimed to serve as a guide for SQME in Nigeria. This model aims to guide implementers to understand the dynamic strategies that have evolved during the process of SQME and guide. This model was developed to counter the common practice of 'one size fits all'. Although the model was developed within the Nigerian context and midwifery education, it can be used in any country with a similar midwifery education context and in a variety of nursing and other allied health professionals' education.

4.5. Assumptions of the Model

The model for SQME was developed on the assumption of the WHO's advocacy for SQME. Therefore, the assumptions that formed the basis of this SQME model are outlined as follows:

1. SQME is expected to respond to meeting the SRMNAH needs of the population.
2. The education and training are expected to prepare competent and confident midwives who are expected to provide quality SRMNAH services to women and families anywhere they live.
3. SQME is expected to build a strong health system and education system.
4. SQME should improve midwives' recognition and professional identity.

5. Evaluation of the Model

The model was assessed using the standards for model evaluation put forward by Fawcett and colleagues [42]. These standards covered issues with the model's relevance, testability, internal consistency, parsimony, empirical adequacy, and pragmatic adequacy. Significance emphasises the context and ensures the theory's significance. This study's

internal consistency was guaranteed by the concepts' consistent definitions, which provided semantic consistency and clarity. By providing precise and succinct explanations of ideas, parsimony was attained. Testability and empirical sufficiency of the SQME model were determined through a series of qualitative studies conducted on faculty perspectives and experiences with its implementation. The pragmatic suitability of many frameworks used to direct the creation of a model to improve the quality of midwifery education was assessed.

6. Limitations of This Study

This study was conducted to guide the implementation and evaluation of strengthening the quality of midwifery education within the Nigerian context. The framework provided by reputable stakeholders like the World Health Organisation remain relevant to the implementation and evaluation of the model. For midwifery education, the model was developed to provide a framework for implementers, policymakers, and stakeholders to guide the implementation and evaluation of strategies to strengthen the quality of midwifery education. Further studies should consider investigating the impact of the model to strengthen the quality of midwifery education in Nigeria and other developing countries.

7. Conclusions

Strengthening the quality of midwifery education can be achieved over a long time provided the pillars of SQME are deep-rooted to sustain the process of strengthening the quality of midwifery education. The model can be used to strengthen the quality of midwifery education and may be adapted to nursing/allied health programmes in Nigeria and in other developing countries.

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Abbreviations

The following abbreviations are used in this manuscript:

PGDE	Post-Graduate Diploma in Education
NNR	Neonatal Mortality Ratio
MMR	Maternal Mortality Ratio
NANNM	National Association of Nigeria Nurses and Midwives
NMCN	Nursing and Midwifery Council of Nigeria
SQME	strengthening the quality of midwifery education
WHO	World Health Organisation

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