

Experience of Nurse Educators on the Implementation of the Competency-Based Curriculum for Nursing and Midwifery Programmes in Tanzania: A mixed method study.

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Abstract

Background: In Tanzania, the competency based curriculum was introduced in 2008. Despite the government efforts to ensure its effective implementation, there has been a public concern on graduate nurse's and midwives' competencies in providing quality nursing care in the country. This concern has influenced people to question the process of the implementation of competency based curriculum for nursing and midwifery programmes. This study describes experience of the nurse educators in implementing the competency based curriculum for nursing and midwifery programmes in Tanzania.

Methods: Convergent parallel mixed method approach was used to explore the experience of nurse educators implementing competency based curriculum. To enhance the validity of the findings, 240 nurse educators, out of 264, answered a questionnaire while the remaining 24 were interviewed. Further, a retrospective observation was done to triangulate the information obtained from the questionnaire and interviews.

Results: The study found out that nurse educators struggle implementing the competency based curriculum and 92% of the participants could not clearly explain the concept of the approach itself. 234 of them used lecture discussion (97%) while simulation was used by 128 (53%). Challenges associated with employing participatory teaching and learning methods reported by most participants included time constraints (61; 25%), some method require special skills to teach(33; 13% and tutors needed training on the competency based curriculum to implement it (13; 5%).

Conclusion: The results conclude that an understanding of the competency based curriculum is limited among educators. Furthermore, they revealed challenges in employing the participatory teaching and learning methods, hence, underscoring the need to put in place a sustainable strategy for continuous personal development and mentorship. **Keywords:** Competency based curriculum, implementation fidelity, nurse educators' experience, nursing and midwifery training programmes.

Background

Competency-Based Education and Training (CBET) approach has received much attention worldwide due to its perceived potential in producing competent graduates required by the labour market (1). CBET can be traced back to the education of primary and vocational teachers in the USA in the 1970s (2).

Poor learning in vocational education programmes was the reason for applying new principles for teacher education (3). In South Africa, the competency-based curriculum was adopted for the first time in 1998, as a response to the acute shortage of competent professionals, including engineers, technicians and artists but also to cope with the challenging issues in the 21st century (4).

In 2005, Tanzania introduced CBET in primary and secondary schools. In 2008, the Ministry of Health Community Development, Gender, Elderly and Children (MoHCDGEC), introduced a CBET for health professionals.

The shift from the Knowledge-Based Education and Training (KBET) to CBET system was influenced by the Tanzania Vision 2025, the National Health Policy of 2007 and the Sustainable Development Goal (SDG) no. 4, which emphasises the quality of education (5).

Vision 2025 advocates the production of a reasonable quantity and quality people, equipped sufficiently with knowledge, skills and attitudes required to meet the challenges of development at local and international levels (6).

The National Health Policy emphasises on quality, accessible, affordable and equitable health services (7). Furthermore, SDG no.4 advocates for an equitable quality education and promotes lifelong learning opportunity for all (6).

The adaptation of the CBET system was expected to improve the quality of nursing and midwifery services by enabling learners to develop the required competencies relevant to the health-related needs of the country and beyond.

According to standards laid down by the National Council for Technical Education (NACTE), Act (8) policy URT (9), the curriculum can be used for a maximum period of 5 years to accommodate changes and updates. The competency-based curriculum for nursing and midwifery was first developed in 2008 and revised in 2017 to align with the NACTE standards.

The government of Tanzania has carried out various interventions to ensure that the CBET curriculum for nursing and midwifery is implemented effectively, including training nurse educators in the CBET curriculum. Furthermore, the MoHCDGEC prepared standardised training materials to complement the implementation of the curriculum.

Skills laboratories were established to ensure students acquire the required nursing and midwifery competencies. Nurse educators were oriented on training materials for effective implementation.

Moreover, infrastructures were refurbished to provide a conducive learning and teaching environment. Despite these interventions, there has been no assessment to ascertain whether the CBET curriculum for nursing and midwifery was implemented as it was intended (10). In the nursing and midwifery curriculum, nurse educators are the main curriculum implementers, while students, parents and clinical instructors are directly or indirectly involved in the process.

Nurse educators are instrumental in preparing competent nurses and midwives to meet the healthcare needs of the society. Their characteristics and experience in competency-based approach influences their practices in implementing CBET curriculum (11). The implementation needs a paradigm shift (12). Content/knowledge-based curriculum indicates the quantity of materials to cover in a course, while with the CBET curricula, educators must determine the behaviours which students should be able to demonstrate during and at the end of a course (13). A key conclusion of the extensive literature on school success is that achieving better learning outcomes depends on enhancements in the implementation

process of the curriculum (14). Nurse educators' experience plays a very crucial role in the success or a failure of the curriculum implementation with fidelity.

Although there are many other factors which affect the learning outcomes, the implementation is the main school-level determinant of the students' performance (11). Therefore, ways to explore nurse educators' experiences and opinions on the implementation of the competency-based curriculum for nursing and midwifery programmes are central to any systematic attempt to improve the teaching and learning outcomes (14).

While it has now been more than ten years since the competency-based curriculum for nursing and midwifery programmes was adapted in Tanzania, available literature has no clear evidence of the implementation fidelity of the curriculum. This lack of evidence on the implementation fidelity greatly limits the interpretation of its effectiveness. A study conducted by Lewis (15) reveals significant gaps in the clinical performance among the newly graduated, raising concerns about models of training.

Rutayuga (2014) affirms that in Tanzania, more emphasis was put in designing and re-designing CBET curriculum rather than assessing the implementation fidelity. In its recommendation, Rutayuga asserts that there was a need to follow-up on the curriculum implementation and assessment to ascertain the CBET pedagogical engagement both in theory and clinical settings.

Asebiomo (17) argues that no matter how well the curriculum is designed and developed, assessing its implementation fidelity is very crucial. Therefore, the need for this study has emerged from the desire to explore the experience and opinions of the nurse educators on the implementation of the competency-based curriculum.

A Conceptual Framework of Implementation Fidelity

Figure 1 summarises the key elements of the conceptual framework of this study. Carroll et al. (18) proposed implementation fidelity conceptual framework with five elements: adherence, dosage/exposure, quality of delivery, participant's responsiveness and programme differentiation.

However, the modified implementation fidelity framework was used to investigate the implementation of the nursing and midwifery CBET curriculum. The modified framework that was used in this study has three elements: adherence, dosage and quality of delivery.

Adherence: Focuses on how nurse educators abide by the procedures and protocols of implementing competency-based curriculum for nursing and midwifery programmes.

Dosage: Looks at the amount, duration and frequency of the educator–students contact for achieving what was intended.

Quality of delivery: Refers to the type and relevance of participatory teaching and learning methods used during the session delivery.

Nurse educators' characteristics and experience play a key role in adherence, dosage and quality of delivery of the competency-based curriculum for nursing and midwifery programmes (11). This study explored the experiences of the nurse educators in the implementation of the competency-based curriculum on both quantitative and qualitative data.

It specifically focuses on the understanding of the concept of competency-based curriculum, preparation of a lesson plan and usage of participatory teaching methods in delivering competency-based sessions. The exploration of this experience will provide evidence-based information to MoHCDGEC, Tanzania Nurses and Midwifery Council (TNMC), NACTE, policymakers and implementers about whether the curriculum is being implemented effectively or not, thus helping the formulation of strategies to implement as was intended (11). Figure 1 below is the conceptual framework that summarises the three elements of this study.

Source: Carroll et al. (2007), modified by researcher (2019)

Figure 1: Conceptual framework for implementation fidelity of competency-based curriculum for nursing and midwifery programmes in Tanzania.

Methods

Study design and approach

As explained by Creswell (19), there is no single study design that suffices the collection of reliable and validity data. Therefore, both qualitative and quantitative data collection was done at approximately the same time, from different samples and the integration occurred during the interpretation phase (20,21).

The mixed data was important to understand and explore the experiences of the nurse educators on the implementation of the competency-based curriculum. Thus, it increased the validity and reliability of the findings (19,20). Findings from the qualitative data triangulated with those of the quantitative data and hence broaden the understanding of the nurse educators' experience on the implementation of competency-based curriculum for nursing and midwifery programmes.

Study setting

This study was carried out in nursing and midwifery training schools across Tanzania. There are 94 such schools, out of which 29 are private, 34 run by faith-based organisations and 31 are government-owned. All schools implement the nursing and midwifery competency-based curriculum approved by TNMC and NACTE.

In each nursing school, there are 10 nurse educators on an average. According to World Health Organization (WHO), a person qualifies to be a nurse educator after completing a nursing training programme and attaining a license to practise nursing, with a minimum of two years' full-time clinical experience and a formal teaching preparation either before or soon after employment as an educator (22).

Study participants

The participants in this study included nurse educators from the selected nursing and midwifery schools. To establish trust, participants of the quantitative study were chosen to be the ones who had an experience of 3 years or more of implementing nursing and midwifery competency-based curriculum, whereas those recruited in the qualitative study had to have a teaching experience of 5 years or more (23).

Experienced nurse educators are usually expected to provide in-depth information (23).

Sample size and sampling procedure

Quantitative study

A simple random sampling strategy (24,25) was used to select 240 nurse educators using a random number generator software. The schools involved in the study were identified after the random selection of the nurse educators. Then, the nurse educators were followed up at their schools, where they taught for the completion of the questionnaire. The school heads assisted the research assistants' team in identifying nurse educators who were randomly selected to answer the questionnaire.

Qualitative study

To ensure that participants with rich experience were included (26), a purposeful non-probability sampling technique was used to recruit 24 nurse educators for the qualitative study (27,28). However, the principle of saturation guided the sampling process (19). The school heads were asked to identify nurse educators who had an experience of 5 years or more in implementing the CBET curriculum.

Thereafter, the researcher met the identified nurse educators, explained the aim, objectives and the study procedures to them and those who agreed to take part in the study were requested to provide written consent. This was followed by scheduling interviews.

Research instruments and data collection

Self-administered questionnaire

A modified questionnaire from the US, which was used to assess the proficiencies of learners in the field of Science, Technology, Engineering and Mathematics (STEM), was used in the study (29). The questions were modified to suit the nursing and midwifery programmes in the context of Tanzania and were based on educators' characteristics, understanding of the concept of competency-based curriculum, preparation and usage of a lesson plan.

Four research assistants experienced in education and health research were trained to collect data. Soon after receiving the ethical clearance (Ref: UDOM/GR/209/Vol II/59) and the permission letter (Ref: MP 70933/78), a pilot test for the questionnaire was carried out for consistency and data collection time estimate, thereafter, data collection began.

Document observation fidelity checklist

Document audit fidelity checklist (30) was used to review documents retrospectively; such as CUM master rotation plan, lesson plans, skills laboratory and clinical rotation schedules. The observation focused on the availability and adherence of the teaching and learning activity plans and their alignment with the designed competency-based curriculum for the nursing and midwifery programme.

Observations

The observation data is generally considered more precise than the self-report as the former provides a more objective data (31). Observations of the implementation were important for measuring the alignment between the designed and the implemented curriculum. The observation focused on the adherence, dosage/exposure and quality of delivery as described below.

The observation on adherence focused on the availability of CUM master rotation plan and whether nurse educators were able to abide by it. Further, prepared classroom session plans, skills laboratory teaching plans and clinical rotation plans were also audited.

The aim was to validate the availability of the advance plan and the way students were placed and rotated in the whole programme. Moreover, to see the systematic records of educators thought about what was covered during classroom, skills lab and clinical teaching.

A sample of constructed question papers for a formative assessment was evaluated to see whether the constructed questions and the action verbs captured all three domains of knowledge, skills and attitude (32).

The dosage was focused on the number of sessions covered in the classroom, skills lab and clinical teaching compared to what was prescribed in the competency-based curriculum for the programmes. Further, the number of practical sessions, written assessments and assignments given to students were also audited. This was key in measuring the coverage of the sessions in comparison to what has been prescribed in the competency-based curriculum for nursing and midwifery programmes.

The quality of delivery focused on the types, relevance and frequency of the usage of teaching and learning methods/techniques. For instance, the usage of participatory teaching methods that facilitate students' understanding and develop skills in various aspects of learning (32) and using simulation to enable a learner develop clinical skills and reduce the shock of entering clinical practice (33).

These factors made teaching techniques important to be observed in order to appreciate the type of instructions the nurse educators used and answer questions such as what tasks were the students doing; the type of interaction used during teaching and why.

The observation for implementation fidelity was important to generate evidence-based practice to quantify the implementation of competency-based curriculum for the programmes among nurse educators.

The CUM master rotation plan, lesson plans, skills lab plan, clinical rotation plan, curriculum and the assessment plan were the documents required to make a reference for authentication. In addition, the skills laboratory teaching activities were also observed at the schools, after an appointment was made through e-mail/phone with the school head. On arrival, self-introduction was done and the purpose of the visit was explained. Introduction, permission and ethical clearance letters were also provided to the head. They in turn provided all the necessary support, including the required documents, as mentioned above, for validation.

The implementation fidelity checklist was used to gather the retrospective information (30). Thereafter, a visit was made to observe the availability of CUM master rotation plan, clinical rotation plan, skills lab plan, time table and equipment for teaching as well as learning purposes.

Semi-structured interview guide

A semi-structured interview guide was used to collect data from the nurse educators (34); the questions were based on a pre-decided topic which guided the data collection (27). The interview guide was translated to Kiswahili—Tanzania's national language.

The interview guide consisted of demographic information, preparation of lesson plan, usage of scheme of study in preparing the lesson plan, experience in employing participatory teaching and learning on the implementation of the competency-based curriculum for nursing and midwifery programmes.

Conducting interviews

Semi-structured interviews were conducted in a quiet room at school premises. An experienced nurse educator and a senior nurse midwife identified participants who met the inclusion criteria and clarified the aims of the study and issues around confidentiality (35). Furthermore, she conducted all 24 interviews in Kiswahili to ease participation.

The interviews were conducted until data saturation had been reached in terms of no new information and themes being procured (36). To ensure dependability of data, the interviews were audio-recorded (28). The audio-recorded interviews' duration varied from 60 to 120 minutes per session.

Data Analysis

Quantitative study

The data from the questionnaire were analysed using IBM SPSS Statistics, version 24 for Microsoft Windows. Descriptive analysis, frequency, proportion and mode were used to summarise the data. The Chi-square statistic was used to test the associations between variables (37). The quantitative data were triangulated with the semi-structured interview to complement the data (38).

Qualitative study

The thematic analysis method, as described by Braun and Clark (39), was used for qualitative data analysis and the NVivo 10 software was used to generate a coding system. Prior to starting the analysis, the audio-recorded interviews were transcribed verbatim, where non-verbal cues were also captured. The interviews were read and re-read to get an understanding of the data (36,40). The data were organised in a meaningful way and were coded to reduce the data volume. The codes were developed and reviewed throughout the coding process and were then organised under descriptive themes. Finally, four themes were generated (40).

Confirmability refers to the degree to which the results could be confirmed or corroborated by others (35). Since the experiences of the researchers could have influenced the interpretation of the results, this was avoided by ensuring that the research team belonged to a mix of various professional backgrounds, including nursing and midwifery, nurse education, curriculum developer and a professor of education. The mixed professional background of the team promoted the interpretation and understanding of results that required an analytical reflection on each researcher's own preconceptions. This also strengthened the results through constructive deliberations and broadened the understanding of the implementation fidelity of the competency-based curriculum for nursing and midwifery programmes in Tanzania.

Ethical Considerations

Ethical approval (Ref: UDOM/GR/209/Vol II/59) was obtained from the Research and Publication Committee of the University of Dodoma (UDOM). Permission to conduct the study in nursing and midwifery schools and review of documents was obtained from MoHCDGEC (Ref: MP 70933/78). Further, an informed consent was obtained from the participants beforehand.

Participants were briefed about the objectives and procedures of the study and were informed about their right to agree or disagree to participate or withdraw from the study at any point in time. Special permission was obtained from informants for audio-recorded information they provided during the interview.

Participants were made clear that the information they provided, whether orally or in writing, would be treated with strict confidentiality and they were assured that the data analysis and report findings will not identify them in any way. Participants' names were not used and the designated numbers as well as the material collected (including hand written notes, transcripts, checklist and tapes) were locked in a cabinet that only the research team could access. A consent to adapt the tools was granted by the authors.

Results

Results have been presented on the basis of the nurse educators' experience in implementing competency-based curriculum for nursing and midwifery programmes. Moreover, the results focus on the understanding of the concept of competency-based curriculum, preparation of the lesson plan, usage of scheme of the study in preparing the lesson plan and the use of participatory teaching and learning methods in the implementation of the competency-based curriculum.

Characteristics of the Participants

Figure 2: Characteristics of the Participants

A majority of the participants had 6 to 10 years of experience (107; 45%) in teaching using nursing and midwifery CBET curriculum, 94 (39%) had 3 to 5 years, whereas 27 (11%) had 11 years and above. Mean years for the same was 6 years.

Understanding of the concept of competency-based approach

When asked about the understanding of the concept, 214 (89%) responded with 'Yes', but when they were tasked with explaining what it comprised, 192 (92%) were not able to explain it correctly. Table 1 and 2 display the results:

Table 1: Understanding the concept of CBET approach

Variable	Frequency	Percentage
Understanding the concept of CBET approach		
Yes	214	89.17
No	26	10.83

Table 2: Ability to explain the concept of CBET approach

Variable	Frequency	Percentage
Yes; Explained correctly	14	6.70
Yes; Not explained correctly	192	91.87
Yes; Didn't remember	3	1.44

Using the scheme of the study

The scheme is the central part of the study in competency-based curriculum for nursing and midwifery which determines the number of sessions to be delivered in a classroom, skills laboratory and duration of assignment and clinical teaching session. It is also the key guide to the preparation of CUM master rotation plan and lesson plans.

Since most nurse educators had more than 6 years of teaching experience using competency-based curriculum, they were expected to demonstrate their understanding of the usage of the scheme of study. It was found that they were not able to explain the usage of the same. During the interview, they were asked to explain how they use the scheme of the study when preparing a lesson plan, to which some of them replied that they did not know what the scheme is and where it is located in the curriculum.

Below are some of the respondents' quotes:

".... Scheme of study in the curriculum? Am not sure if I know it" Any other name? (Participant no. 19, with 16 years of teaching experience)

".... Scheme...? Scheme of study is like ... We don't have scheme of study. (Participant no. 20, with 42 years of teaching experience)

".... Inside curriculum ... When you look ... I only know in general. When you look at all the curriculum, there is a place indicating how many hours am supposed to teach. (Participant no. 23, with 13 years teaching experience)

Preparation and using lesson plan for teaching

In self-reporting, 87% of the participants reported to have a lesson plan and were able to abide by it. Through observation, however, it was noted that only 12% had lesson plans which did not match the competency-based lesson plan as there was no indication of the session learning tasks to be achieved, duration, method of teaching/learning or teaching/learning resources.

These findings further indicate the inability of the nurse educators to translate the competency-based curriculum into action, especially to prepare a lesson plan from the competency-based curriculum for nursing and midwifery programmes.

Table 3 summarises the results as follows:

Responses	Frequency	Percentage	Valid Percentage
No	53	88.3	88.3
Yes	7	11.7	11.7
Total	60	100.0	100.0

Table 3: Possession of lesson plans

Use of participatory teaching and learning methods

Majority of the participants used lecture discussions (234; 97%) whereas simulation was the lesser used method (128; 53%). Challenges associated with employing the participatory teaching methods reported by most of the participants included shortage of teaching equipment in the class/clinic (73; 30%), time constraints (61; 25%), some teaching methods needed special skills (33; 13%), large numbers of students (24; 10%), some participatory teaching methods needed more time (23; 9%), teachers needed to be well-trained in the CBET curriculum (13; 5%) and difficult terminology in the CBET curriculum (4; 2%). Results matched with the findings from the interview. Nurse educators interviewed on the usage of participatory teaching and learning had the following responses:

“.... To say the truth, the demonstration method becomes problematic once you have a big class; meaning a big number of students. In terms of simulation, majority of us do not clearly understand how to use it as a method of teaching.” (Participant no. 1 with 24 years of teaching experience)

“.... shortage of instruments, or even if they were present, but there was no similar situation with a real patient.” (Participant no.5 with 23 years of teaching experience)

“.... the number of students is so big, it becomes difficult to get that ratio of 1 teacher to 5 students, in order for them to have a chance to do a return demonstration and achieve the required competencies. A

large number of students leads to a situation which I only prepare two demonstration activities in order to fit for the available time (Participant no. 6 with 22 year of teaching experience)

From the above findings, it is clearly that demonstration and simulation are not being applied properly. This limits the interaction between the nurse educators and students and their acquisition of the competencies as was required by the competency-based curriculum implementation approach. Therefore, it might not be surprising to find that some students and graduates had a skill gap in their clinical performance.

Discussion

The aim of this study was to explore the experience of the nurse educators on the implementation of the competency-based curriculum. The results of interviews and observations are considered to be reliable as the self-reporting questions from the questionnaire tended to have had a bias (41).

Understanding the concept of competency-based curriculum

For the effective implementation of competency-based curriculum, nurse educators need to understand its concept. In this study, the question regarding the same was included. The results of the same show that the nurse educators (92%) were limited in their understanding of the concept of competency-based approach.

This is a major issue in the nursing and midwifery training and education field where nurse educators are the bedrock of implementing the competency-based curriculum. Our findings are similar to a research conducted by Komba (12) on the reflection of the implementation of the competency-based curriculum. Komba found out that 86% participants did not have a proper understanding of the same concept. Another study, conducted by Kafyulilo (42), was done on the implementation of competency-based approach on pre-service teachers in Morogoro. The results indicated that only a few participants could define competency-based approach while the majority failed at it.

Preparation of lesson plan

A lesson plan is a written description of how learners will move towards attaining specific learning objectives (42). A lesson plan for competency-based curriculum for nursing and midwifery indicates a list of competencies to be achieved in the classroom and skills laboratory. For an effective teaching and learning experience, nurse educators need to focus on the lesson plan (43).

The findings from this study have shown that a majority (88%) of nurse educators had no lesson plan as compared to the 12% who did. However, even the lesson plans that were available did not meet the standard for competency-based approach. Results of this study are similar to the findings of Komba's (12) study on the reflection of the implementation of competency-based curriculum; it was found that a majority of the reviewed lesson plans did not have the quality of competency-based lesson plan. Further, in the study conducted by Kafyulilo (42) on the implementation of the competency-based teaching

approach in Tanzania, participants were asked to prepare a lesson plan for any subject of their interest and 19% of them were not able to write a lesson plan despite ample time being given.

When the competency-based curriculum was introduced in Tanzania, nurse educators were trained in its usage and in lesson planning. This study suggests that nurse educators had a limited knowledge of competency-based approach thus have been unable to translate it into practice.

Notably, the limitation on the understanding of the concept of competency-based approach may hinder their ability to prepare a lesson plan from the competency-based curriculum for nursing and midwifery programme.

Use of the scheme of study

This study's findings indicate that the mean years for the teaching experience using a competency-based curriculum for nursing and midwifery programmes among nurse educators was 6 years. According to Benner's theory (44) 'From Novice to Expert,' six years' experience can be considered under expert category. An expert nurse educator would be expected to operate from a deep understanding of the competency-based curriculum in its entirety.

The nurse educator's performance with 6 years of experience is expected to become fluid, flexible and highly skilful (10). In contrast, from the interview it was clear that they did not demonstrate the understanding of the scheme of the study.

This further suggests that nurse educators are likely to have insignificant understanding of the competency-based curriculum thus being unable to use the scheme of study for the preparation of lesson plans. Thus, questioning the realisation of SDG no. 4, according to which nurse educators must ensure all learners acquire the knowledge and skills needed to promote sustainable development. Although policymakers, implementers and other stakeholders believe that nursing and midwifery education in Tanzania is implementing the competency-based approach, findings of this study are not convincing of the same.

Usage of participatory teaching and learning methods

Facilitation in nursing and midwifery education is an important initiative that aims to encourage learning and teaching. For the effective implementation of the competency-based curriculum for nursing and midwifery programmes, the usage of participatory teaching and learning methods is highly emphasised because these methods give an opportunity to the learner to improve their confidence and skills.

This study confirms that in order to ensure learner's acquisition of competencies, participatory teaching and learning methods such as demonstration and simulation must be applied (43). The findings, however, reveal that a majority of the participants were found to use lecture discussions (97%) than the simulation method (53%).

The experiential learning model of Kolb (33), is the theory that fits the competency-based training well. The demonstration and simulation teaching methods provide learners an opportunity to cultivate the clinical competencies prior to their placement in a real clinical setting. For learners to acquire clinical competencies, skills laboratories should mimic the clinical setting.

According to Kolb, the experiential learning model says learners must be exposed to the reality and that throughout the learning cycle/process, they must be given an appropriate comment for improvement (33). When demonstration and simulation methods are effectively applied, they enable the learner to gain the required competencies and become confident in real-time practice.

Conclusions

For the effectiveness of the intended/achieved competency-based curriculum for the nursing and midwifery to come about, policymakers and implementers need to be able to understand whether nurse educators are implementing the competency-based curriculum for the nursing and midwifery programmes as it was intended or not.

The study findings conclude that despite the fact that the competency-based curriculum for nursing and midwifery programmes is being implemented since ten years, nurse educators are still struggling to translate it into their real teaching. Frequently and continuously, nurse educators must get on-the-job training, which is imperative in broadening their understanding of the competency-based curriculum for nursing and midwifery programmes.

Recommendations

Policymakers and implementers

- Develop nurse educators' competencies which are necessary in a broader perspective to implement the competency-based curriculum while teaching nursing and midwifery programmes.
- Develop a mentorship programme to build capacity for nurse educators.
- Put in place a sustainable strategy for the nurse educators, such as Continuous Personal Professional Development (CPPD).

Declarations

Ethical approval and consent to participate – Not applicable

Consent for publication – Not applicable

Availability of data and materials – Not applicable

Competing interest – The authors declare that they have no competing interests

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Authors' Contribution

Vumilia initiated the idea of the study and had a major role in preparing the first draft of the manuscript. Lilian, Kibusi and Kalafunja participated in study design, data collection, analysis and writing throughout the study. All authors read and approved the final version of the manuscript.

Declaration

This work is based on a dissertation that will be submitted to a degree of the University of Dodoma, Tanzania.

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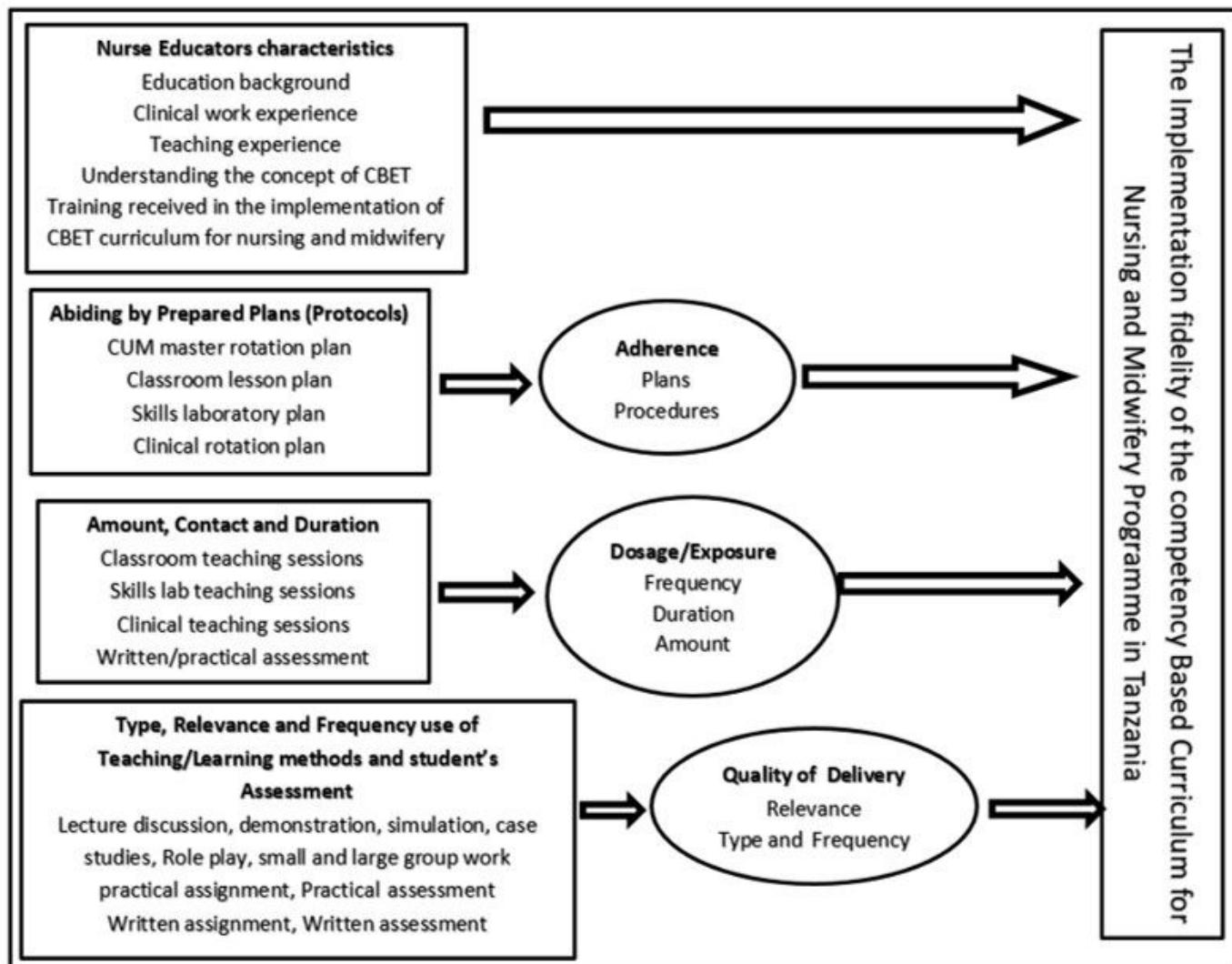
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Figures



Source: Carrol et al. (2007), modified by researcher (2019)

Figure 1

Source: Carrol et al. (2007), modified by researcher (2019) Conceptual framework for implementation fidelity of competency-based curriculum for nursing and midwifery programmes in Tanzania.

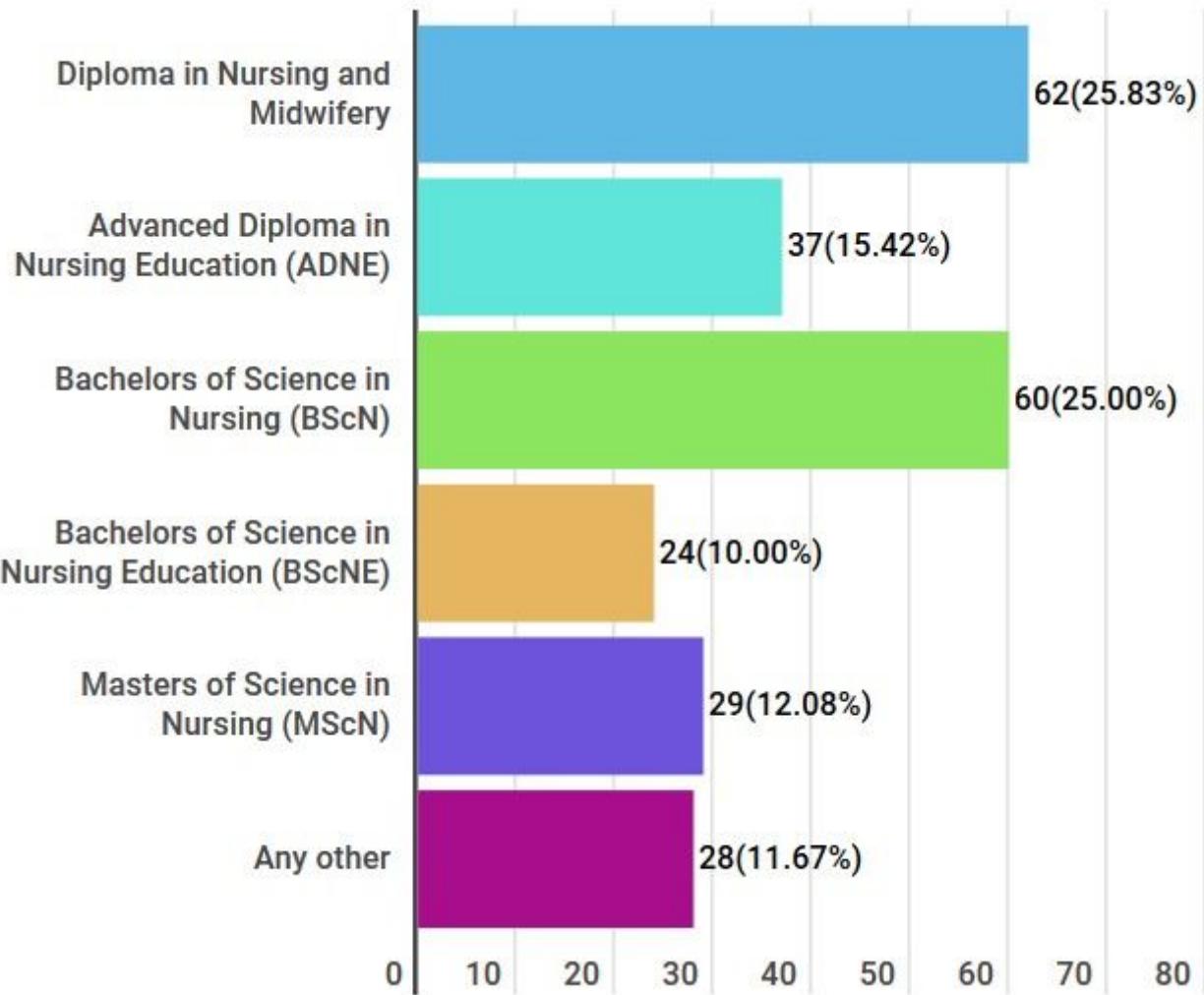


Figure 2

Characteristics of the Participants