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Nursing and midwifery students' experiences and perception of their clinical learning environment in Malawi: A mixed method study

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Abstract

Background

The clinical learning environment is an important part of the nursing and midwifery training as it helps students to integrate theory into clinical practice. However, not all clinical learning environments foster positive learning. The aim of this study was to assess the experiences and perception of nursing and midwifery students of their clinical learning environment in Malawi.

Methods

A mixed-methods approach was used to collect data from nursing and midwifery students. Data were collected using a questionnaire and focus group discussions. Questionnaire data were collected using the Clinical Learning Environment Inventory (CLEI). Data from focus group discussions were collected using an interview guide which had questions about clinical learning, supervision, assessment, communication and resources. Quantitative data were analysed by independent t-test and multivariate linear regression while qualitative data were analysed by thematic analysis

Results

A total of 126 participants completed the questionnaire data while 30 students participated in the focus group discussions. Satisfaction subscale had the highest mean score (M = 26.93, SD = 4.82) while Individualisation had the lowest mean score (M = 18.01, SD =3.50). Multiple linear regression analysis showed statistically significant association between Satisfaction with clinical learning environment and Personalization (β = 0.50, p = < 0.001), and Task orientation (β =0.16 p= < 0.05). Teaching and learning resources, hostile environment, poor relationship with a qualified staff, absence of clinical supervisors, and lack of resources were some of the challenges faced by students in their clinical learning environment.

Conclusion

The findings of this study show that although satisfaction with clinical learning environment had the highest scores, students encountered multifaceted challenges in their clinical learning environment. A collaborative effort from training institutions and hospitals is needed to better support students with their clinical learning.

Introduction

There is a great deal of evidence that quality of the clinical learning environment for nursing and midwifery students has an impact on their learning behaviours and attainment of clinical competence [1, 2, 3]. The clinical leaning environment enables students to bridge the theory-practice gap and obtain critical skills necessary for clinical decision making [3]. Students spend approximately three times the amount of hours in clinical environments compared to the time they spend in the classroom [4, 5].

According to Flott and Linden [6], the clinical learning environment includes the following four aspects: the physical space; psychosocial and interaction factors; organizational culture; and teaching and learning components.

The physical space encompasses the physical environment and resources that impact on students' learning [7]. It includes equipment, facilities, learning tools and standard procedures [2]. Authors of a qualitative study conducted in Norway among undergraduate nursing students identified lack of equipment, and unfamiliar, old and outdated equipment as challenges faced by students related to the physical learning environment [2]. According to Haraldseid [2], the lack of resources forced students to improvise, which resulted in providing sub-optimal care to patients [2]. The clinical learning environment, therefore, should be well resourced and organized to enhance acquisition of knowledge, skills and attitudes.

The psychosocial and interaction factors entails communication, behaviours and attitudes displayed by qualified healthcare worker, clinical instructors and students that influence clinical learning [8]. Students have identified lack of clearly stated expectations of what is expected of them in clinical learning environment as one of the major challenges they face during their clinical practicum [2]. Furthermore, authors of study conducted in Iran reported that clinical instructors created an environment of fear that resulted in students loosing motivation to perform procedures in the ward [9]. Also, in the same study students reported that some clinical instructors were verbally abusing them that made it difficult for them to ask questions that were relevant to their clinical learning [9]. On the other hand, authors of another study conducted in Iran reported that nurses avoided yelling and harsh words to students in their clinical area which resulted in enhancing students learning experience [10].

Organization culture is another important component of clinical learning environment. It is related to the healthcare managers' perception of nursing education, organizational policies related to students scope of practice and emphasis on provision of quality care to students [8, 11]. Nursing managers have the responsibility to guide and give adequate time to qualified nurses to support students [12]. The nursing managers need to promote a culture of learning and teaching in their facilities through fostering a culture of supporting students in clinical area by training staff on how to better support students, rostering staff in such way that students are partnered with qualified staff, and allocating manageable workload so that qualified nurses have time to teach students [12].

The teaching and learning components involve the process and effectiveness of teaching, supervising and evaluating students in the clinical area by their clinical instructors. Literature shows that students acquire clinical competencies most effectively in clinical environments where they participate in care provision, and work alongside healthcare staff that support and encourage learning [13, 14]. The process of how the required competencies are acquired needs close monitoring to make sure that the clinical learning program fits the purpose. Nursing students are evaluated in clinical learning environments where skills and knowledge are applied to patient care [6]. Nonetheless, students in Norwegian study reported that although they wished they had frequent feedback from faculty on how to perform nursing

procedures, the faculty had limited time to give them feedback as such they relied on feedback from their peers [2].

Malawi has a critical shortage of nurses. For example, the ratio of nurses to the population is 3.4 per 10,000 [15]. The nurse to population ratio is only a third of what WHO recommends [15]. Nursing and midwifery institutions in Malawi have responded to the critical shortage of nursing by increasing the enrollment number of students. However, this has come at a cost of depleting the already limited resources in the teaching hospitals. Nurses in Malawi report lacking resources, feeling exhausted and failing to support students because of their high workloads [16]. However, despite the many challenges that hospitals are facing in Malawi, little is known about the experiences of the students' nurses and midwives on the quality of clinical learning environment. Therefore, this study was carried out to assess the quality of clinical learning environment for nursing and midwifery students in Malawi.

Methodology

This study used a mixed methods approach using a concurrent research design. Quantitative and qualitative data were collected concurrently, analysed separately, and then the results were compared [17] While on the one hand, the quantitative part of the study helped to establish the student nurses' levels of satisfaction with their clinical environment, on the other hand, the qualitative component provided a rich account of the students experiences with their clinical learning environment..

Study sites and study population

Study participants were recruited from three nursing institutions in the Northern part of Malawi, namely Mzuzu University, Ekwendeni College of Health Sciences and St John's College of Nursing and Midwifery. These institutions were selected because they were the only institutions in the Northern Region of Malawi training generic Nursing and Midwifery students at the time of data collection. Participants were recruited in the study if they:1) were within their 2nd to fourth year of study; 2) had a minimum of one clinical placement over the duration of their study; and 3) were from a nursing and midwifery institution from the Northern Region of Malawi. Nursing students in their first year of study were excluded because they had limited clinical experience. During the period of data collection students were doing their clinical placements in various hospitals in the Northern Region.

Sampling

Convenient sampling was used to recruit students to the study. All students from the three nursing and midwifery institutions who were doing their clinical practice in the hospitals where data collection took place were eligible to participate in both the survey and focus group discussion provided they met the recruitment criteria. A total of 126 students opted to participate in the survey questionnaire. Out of the 126 students, 30 students consented to take part in the focus group discussion. There were three focus groups, one from each of the three participating training institutions comprising of 10 students in each group.

Data collection

Study measures

Survey questionnaire

Data was collected using a self-administered questionnaires, which had two sections; sociodemographic characteristics of participants and the clinical learning environment inventory (CLEI).

Sociodemographic characteristics of patients

The sociodemographic characteristics of participants section of the questionnaire collected information such as age, year of study, programme of study, and duration of the clinical placement.

Clinical Learning Environment Inventory (CLEI)

A Clinical Learning Environment Inventory (CLEI) [18] was used to collect quantitative data. CLEI has two types of questionnaires: 'the actual form' and the 'preferred form'. The Actual Form is used to assess students' perception of the real clinical learning environment, while the 'Preferred form' is used to assess students' perception of the characteristics of the desired clinical learning environment. The Actual Form was used in our study. The questionnaire comprises of 42 items that are grouped into six subscales of seven items each. The subscales are: 1) Satisfaction- students enjoyment with the clinical placement; 2) Involvement- students involvement in hospital activities; 3) Individualisation- extent to which students are allowed to make decisions in the clinical area; 4) Innovation - clinical teacher innovative teaching strategies; 5) Task orientation - organisation and clarity of ward activities; and 6) Personalisation- students opportunities to interact with clinical teacher and concern for students welfare. The responses to each item are rated on the 4-point Likert scale: 1 = Strongly agree, 2 = Agree, 3 = Disagree, and 4 = Strongly disagree. The scale has been validated in Australia and has good reliability (Cronbach's alpha = 0.73–0.84) [11, 18, 19]. To calculate the total score, the scores for individual negative items are reversed before adding them. Higher scores indicate a high level of satisfaction with the clinical placement.

Focus group interview guide

An interview guide was used to collect qualitative data during the focus group interviews. Appendix 1 is attached which contains specific questions used as a guide during the interview discussion.

Pilot Study

The instruments for data collection were subjected to a pilot which was conducted in Malawi at Nkhotakota District Hospital to 10 students of Kamuzu College of Nursing. The piloted data was analysed and where necessary changes were made to some of the data collection tools for the main part of the study

Data analysis

Quantitative data were analysed using Independent t-test, ANOVA and multiple linear regression. P-value was significant at 0.05. The Statistical Package for the Social Sciences (SPSS) version 23 was used to analyse the data.

For qualitative data, all the focus group discussion data were conducted in English. All the interviews were captured using a digital voice recorder, transcribed and checked for accuracy. Field notes were taken immediately following each focus group discussion. Braun and Clark's six phases of thematic analysis were used to analyse the data [20]. The six phases are data familiarization, generation of initial codes and collating data according to the codes, searching for themes, reviewing themes, defining and naming themes, and producing a report. Two researchers independently read and the re-read the transcripts to identify the codes. The identified code were organized in a table. The research team verified the codes and grouped the codes according to their commonalities during their regular meetings. The Group of codes were then assessed further by the research team to identify themes. The emerging themes were then named and identified as main themes or subthemes. Credibility and trustworthiness were ensured through piloting the interview guide, member checks of the transcribed data, use of field notes.

Results

Survey

General characteristics of participants

Three-quarters of the participants were within the age group between 20–25 years old. The proportion of females was slightly higher than males (54% compared to 46%). More than three quarters of the participants were nurse-midwife technician students pursuing a college diploma in Nursing and Midwifery. More than half of the participants (57%) were in third year of study (see Table 1).

Table 1
General characteristics of the study participants (N = 126)

Variable	n (%)
Age ≤20 20–25 ≥25	4 (3) 96 (76) 26 (21)
Sex Female Male	68 (54) 58 (46)
Program of study BSc Nursing & Midwifery Nurse Midwife Technician	15 (12) 111 (88)
Year of study Second Third Fourth Missing	39 (31) 72 (57) 14 (11) 1 (1)
Clinical placement Central hospital District hospital Others Missing	44 (35) 54 (43) 25 (20) 3 (2)
Recent clinical Placement* Medical Surgical Labour and delivery Postnatal Antenatal Paediatric Family planning Under 5 clinic Theatre Missing	10 (8) 13 (10) 29 (23) 10 (8) 11 (9) 32 (25) 3 (2) 2 (2) 7(6) 9 (7)
Length of current clinical placement < 3weeks 3-8weeks > 8weeks Missing	14 (11) 77 (61) 31 (25) 4 (3)

The scores among the participants ranged from 97 to 164 (Mean [M] 131, Standard deviation [SD] = 13.28). Satisfaction subscale had the highest mean score (M = 26.93, SD = 4.82), followed by Personalisation (M = 23.27, SD = 4.02) while Individualisation had the lowest mean score (M = 18.01, SD = 3.50) (see Table 2). There was no significant difference between the total score of subscales score with age, gender, students study program and students' institution.

Table 2
Mean scores of Total and subscales of CLEI Actual form (N = 126)

CLEI Scale	Mean ± SD	Range	Minimum	Maximum
CLEI total scale	131.29 ± 13.28	67	97	164
Satisfaction	26.93 ± 4.82	25	9	34
Personalization	23.27 ± 4.02	20	12	32
Student involvement	22.67 ± 3.04	22	12	34
Task orientation	21.73 ± 3.52	18	13	31
Innovation	18.68 ± 2.89	16	12	28
Individualization	18.01 ± 3.50	20	7	27

We used Satisfaction subscale as the outcome measure, with the other subscales as explanatory variables. Students' satisfaction with the clinical learning environment was positively correlated with all the other subscales. Pearson correlation coefficient ranged from 0.20 (Individualisation subscale, p = < 0.05) to 0.54 (Personalisation subscale, p = < 0.001) See Table 3.

Table 3
Correlation between satisfaction subscale and other subscales of the CLEI Actual form

CLEI Subscales	R	p value
Personalization	0.54	0.000
Student involvement	0.23	0.005
Task orientation	0.30	0.000
Innovation	0.27	0.001
Individualization	0.20	0.014

Multiple linear regression analysis showed statistically significant association between Satisfaction with clinical learning environment and Personalization (β = 0.50, p = < 0.001) and Task orientation (β = 0.16 p = < 0.05). The two variables retained in the model explain 31% of the variability of the student satisfaction with their clinical learning environment (See Table 4).

Table 4
Multiple linear regression with Satisfaction as a dependent variable and other subscales of the Actual CLEI scale as independent variables

Independent variables	Beta (95% confidence interval)	p Value	R^2	F
Personalization	0.50 (0.41–0.78)	0.000	0.31	28.35
Task orientation	0.16 (0.12–0.43)	0.038		

Focus group discussion

Three focus groups were conducted with 30 nursing students (one focus group per training institution). Each focus group had 10 participants. Participants in the focus group discussion were conveniently drawn from those who responded to the survey questionnaire. Three main themes emerged for the data. These included: 1) Clinical teaching and supervision; 2) Working relationship and support; and 3) Teaching and learning resources.

Clinical teaching and supervision

There was a great discussion related to lack of clinical teaching and supervision among participants. This discussion mainly focused on the following areas 1) student accompaniment in clinical area, 2) assessment and feedback, and 3) integration of theory into practice.

Student accompaniment in the clinical area

Students in this study indicated that they were left alone in the clinical area most of the times without any guidance and supervision. Many participants in all the three focus groups reported that they wished their lecturers and their clinical instructors accompanied them to the clinical area and stay with them for the first week to orient them to the ward routines. One student reported:

> *"I think teachers must be there for a week when we are just beginning the clinical allocation to orient us. Let's say we are doing labour and delivery for 4 weeks, if they can come twice during the allocation that can be better unlike just leaving us not even coming"*

Some students indicated that the presence of a clinical instructor or lecturer facilitated their learning as they were free to ask question and learn different skills, which was not the case when they were with unfamiliar nurses in the ward. One student narrated:

> *"My expectation is that the lecturers should be visiting us frequently…. we are so open to the lecturers to ask questions because usually you are new in the ward and you don't know how the qualified staff will react if you ask them questions."*

Although many students preferred their lecturers to accompany them to the clinical area, some students reported that in certain clinical placements, staff were adequately prepared and welcoming to students despite having a huge workload. This is illustrated in the following comment:

> *"Qualified staff working in the ward were willing to help us to learn through these conditions. But though trying, they had a lot of work to do but were committed to teach us and help us with some problems but because of the workload, sometimes they could not manage"*

While some students reported having support from the qualified nurses, there were others who experienced an unwelcoming and unattractive learning environment, where ward staff expected them to do the work of a qualified nurse in the ward.

> *"The qualified staff in the ward, most of the time thought that if students are in second, third or fourth year, then they know everything forgetting that we are there not actually to do their work but at least to learn….they just leave us to work on our own"*

Students had expectations in the ward and one of them was that qualified nurses would supervise and give them feedback whenever they were doing any procedure on a patient. Some students reported that the District Health Officer and the District medical officer were helpful to them as they were teaching them how to manage patients of different conditions.

Clinical Assessment and feedback

There was also a great deal of discussion around clinical assessment and feedback in clinical area. Majority of students complained that clinical assessments were not done in time and feedback was most of the times not given to students. Some students gave account of their experience of how the clinical assessment which was supposed to be conducted in the first year was carried over to third year:

> *You find that most of the clinical assessments in first year are not done and are carried over to third year, which puts pressure on us as we have to do so many clinical assessments within a short period of time*.

A few students complained that sometimes clinical assessment was not done until they finished their clinical placement, and arrangements were made for them to have the assessment at a different hospital where they were often assessed different things from what they had learnt in their clinical placement.

Integration of theory into practice

Students reported that it was difficult for them to integrate theory into practice in the clinical area because majority of the qualified staff were using short cuts to perform procedures. Students stated that the only time they practiced what they learnt in class was when their clinical supervisor was with them. This is illustrated in the following comments:

"It becomes a problem for us to integrate what we learnt in class and what we meet in the ward. During theory, it's like a comprehensive sort of something but when you are in the ward, there are shortcuts unless there is a clinical supervisor with you'

Students narrated that the first weeks of their clinical placement, they tried to do what they learnt in class but with passage of time, they also joined the qualified nurses in using shortcuts to perform procedures. Most of the students reported that huge workload was the reason behind qualified nurses' use of shortcuts during procedures in the clinical area. One student reported:

"When a lecturer is there, you do a comprehensive sort of history taking of which you learn, but when you are with qualified nurses may be with high workload they can do shortcuts so you cannot learn anything"

Working relationship and support

Several students reported that their clinical experiences was negatively impacted by the poor relationship with some clinical staff. Students recalled some experiences when qualified clinical staff shouted at them in the presence of patients and fellow students. One student reported:

"When a student is wrong, the qualified nurse would shout at you in the presence of patients and in front of everyone else. It was making my day bad and contributed to not meeting your objectives because I was stressed up or pissed off, so it wasn't okay"

Students stated that they would have loved if qualified staff would politely correct them when they make mistakes when conducting procedures. Moreover, some students narrated that as a result of qualified staff's poor communication skills, they were uncomfortable to perform procedures in the presence of clinical staff because they were afraid that they will be shouted at if they make any mistake.

"Sometimes it happens that you are doing a procedure in the ward and as a student you have problems in accomplishing it, then you find they blame you right there that you were not supposed to do that. This put us down and we are not comfortable doing procedures with them. We would love to be told in private if there is a problem and tell you not in the presence of all patients because they lose trust in you"

Additionally, while some students reported good relationship with students from different institutions, several students reported that an increase number of students from different institutions in the ward resulted in misunderstandings among students as they were fighting for the few patients in the ward. One student explained:

"In the ward you have students from Mzuzu University,, Ekwendeni College of Nursing and, St Johns college of Nursing, so when you want to do a case study, they [students] from other schools also want to use the same patient to do their case study…we end up fighting for clients instead of focusing on helping the client"

Teaching and learning resources

Many students reported a lack of adequate number of qualified staff in the clinical area was affecting their clinical learning and experience. Many students explained that as a result of shortage of staff in the ward, most of them found themselves working without supervision to cover shortage in the ward rather than learning to gain clinical skills.; One student reported: "*We have shortage of resources….we are failing to achieve things because of shortage of mentors in the clinical area"* Another student reported:

> *"I expect to have enough resources in each and every department and adequate staff…we have observed that they are trying to cover shortage with us students, they forget that students are there to learn"*

Material resources

Apart from human resources, students also reported lacking of material resources to help them achieve their clinical competence. Students reported that they lacked clinical equipment and protective gear. One participant said: *"When it comes to real practice you find that most of the equipment or accessories that you learned in class are not there in the ward*"

Students reported that most of the procedure they learned in class were developed in Western Countries, and the challenge of implementing the procedures in the clinical area in Malawi was related to lack of equipment. As a result, students reported improvising which affected the quality of their clinical learning.

> *"I said sometimes it is difficult because what you learn is from Western Countries and here in Malawi we do not have the resources I the ward, so we end up improvising, which is a challenge."*

Discussion

The aim of this study was to assess nursing students' perception of their clinical learning environment. The results of the survey shows that satisfaction followed by personalization subscales had the highest mean scores. While innovation and individualization had the lowest scores. In addition, scores on the subscale Satisfaction were significantly higher in students who valued Personalization and Task orientation. With regard to the qualitative findings, students reported that their clinical supervisors were most of the time not available to accompany or teach them in the clinical area. Assessments and feedback to students were also not done in time. Students had also difficulties to integrate theory into practice because of lack of resources as well as qualified staff not following protocols when performing procedures. Majority of students reported that they wished healthcare workers communicated to them properly but that was not the case, as most of the times they were shouted at for not doing procedures properly. Furthermore, lack of human and material resources affected students to achieve their clinical competencies.

This study has demonstrated that satisfaction of the clinical learning environment by the nursing students had the highest mean score. These findings agree with those of a study conducted in New

South Wales in Australia, where respondents demonstrated satisfaction with clinical placements [21]. Contrary to the findings of our study, authors of a Norwegian study found that Personalisation sub-scale had the highest mean score [22]. The findings of our study also demonstrated that students' satisfaction with the clinical learning environment was positively correlated with all the other subscales. This demonstrates that satisfaction with clinical learning environment is dependent on multiple factors. These findings are in agreement with a study conducted in Greece and Norway [22, 23]. Moreover, Personalization and Task involvement were the main subscales, which contributed to Satisfaction with the clinical learning environment in multiple linear regression. There is a great deal of literature that shows that students enjoy their clinical placement if they have opportunities to interact with clinical instructor and have their concerns for their welfare considered in the clinical practice [23]. The Nursing and Midwifery education standards in Malawian context mandates students to spend 60% in clinical setting and 40% in theory [24]. Despite the differences in setting of this study (developing country) and studies conducted in developed countries, the main findings are similar [21, 22, 23].

Although the results of the survey showed that the majority of students were satisfied with their clinical learning environment. Most students in the focus groups were dissatisfied with the level of support in clinical teaching and supervision. They indicated that most of the times they were left alone in the clinical area without any guidance and supervision from their lecturers and qualified members of staff. Similar results were reported in study by Castledine [25], in which, level of support student nurse/midwives received from clinical staff and teaching institutions was inadequate. Lack of support in clinical teaching and supervision affects students' learning experience in the clinical setting because students value familiarity, acceptance, trust, support, respect and recognition of their contribution to patient care in the clinical area [25]. Support from the lecturers and tutors during clinical practice helps to allay fears and anxieties, provide guidance and encouragement to acquire the requisite knowledge, skills and attitudes fit for practice which in turn helps the students to provide high quality patient care. During first clinical placement, students are very anxious due to unfamiliarity of caring for patients and fear of making mistakes.

Additionally, the study results have also demonstrated the challenges that students face in integrating theory into practice due to inadequate support from the lecturers and qualified members of staff which in turn affects their clinical assessments. Evidence from the literature indicates that there is indeed a gap in integrating theory to practice, which has been of concern for a long time in nursing education [26]. Conflicting practices between the ideal nursing taught in classroom and that of the clinical setting result in students being confused, stressed and anxious if they are not well taught and supervised [27, 28].

The results of our study also show that students were not happy with the clinical assessments and feedback from the lecturers and qualified staff during clinical practice. Learning in clinical practice takes place if students know whether what they are doing is right or wrong. Clinical nurse educator's role is to enhance learning through provision of opportunities for learning, supporting, guiding and conducting fair and timely evaluations. Similar results were also reported by Sharif & Masoumi [28] in which students felt that the role of conducting assessments and evaluations during clinical placements was not fulfilled

since it was mainly done by nursing staff who lacked knowledge and experience in assessments and feedback. Feedback helps the students to gain confidence by knowing their strengths and weaknesses in terms of progress [29]. Several studies have illustrated measures to try and close the theory-practice gap through reflection and problem based learning under the guidance and support of lecturers and clinical staff that help them to develop their critical thinking and problem solving skills in clinical practice. Students therefore need to be adequately taught and supervised in order to link theory learnt in class with the realities of nursing practice [30].

Results of this study also revealed that students experienced negative working relationship between themselves and clinical staff. These results conquer with a study by Papastarouu and colleagues [23] who reported perceived serious deficits by students in practice settings where they anticipated hostility and difficulties communicating with staff. Good interpersonal relationship, communication and support between staff and students create a conducive environment which is essential for student learning in the clinical setting. Such behaviors reduce anxiety and foster socialization process, confidence and self-esteem thus promoting clinical learning [29].

Some students reported that they were doing routine tasks and sometimes non nursing duties while others reported a variety of learning opportunities which facilitated their learning. These learning opportunities were compromised by work load and overcrowding of students. Heller and colleagues [32] suggested that students have to be given opportunities to practice different tasks to gain confidence, become perfect and learn from the mistakes. As much as this suggestion is ideal, the number of students in nursing colleges has increased such that the students are not given adequate opportunities to learn. The overcrowding of students in the clinical setting affects peer support which could lead to conflicts, tension, competitions for opportunities and lack of fulfillment of some requisite competencies which in turn compromise the care given to patients during clinical practice [33].

The study results revealed that both human and material resources were inadequate for the clinical learning experience of the nursing/midwifery students. Teaching and learning resources are critical in nursing and midwifery education. In order, to provide high-quality nursing care to patients, student nurses need to learn theoretical knowledge as well as practical skills. Lack of both time and material resources to facilitate learning can lead to students feeling unsupported. Literature suggests that nurse educators are expected to accompany student nurses but shortage of staff limits them to lectures in the classroom resulting in minimal clinical teaching and supervision. This shortage makes it difficult for the lecturers to spend enough time with the students and this compromises the level of support given to students [34]. Lack of guidance and supervision may lead to nursing students learning incorrect procedures and become incompetent and lose interest in the nursing profession as they feel frustrated [35].

Quinn [36] states that professional nurses are responsible for teaching, supervising, guiding, counselling, assessing and evaluating student nurses in the clinical area. The results of this study revealed that professional nurses in the clinical setting were busy with their administrative roles and that of patient care unlike the teaching role of students. Similar results were reported by Troskie colleagues [37] where

multidimensional roles of unit managers especially staff shortages caused patient care to take priority over clinical teaching of student nurses. The nurse midwife institutions in partnership with the clinical practice facilities are responsible for preparation of student nurse midwives to cope with the complexity and nature of clinical practice by ensuring that both human and material resources are available and adequate for the clinical learning experience of student nurses in order to become competent practitioners [38].

Limitations

This study was conducted in three training institutions in the Northern Malawi only. As such, it may not be representative of the experiences of all the nursing and midwifery students in Malawi. Also, the small sample size in this study may affect the generalizability of the findings. Therefore, the findings of the study should be interpreted with caution. Future studies with a large sample size is therefore warranted to confirm the findings of this study.

Conclusion

The findings of this study show that although students described their clinical learning environment as satisfactory, they had many challenges that impacted their clinical learning. Hostile environment, poor relationship with qualified staff, absence of lecturers and lack of resources were some of the factors that affected students' clinical learning experience. Therefore, training institutions need to have a clear plan of clinical supervision of students in the clinical area to ensure that a clinical supervisor is available to teach and assess students. Qualified staff also need training on how they can better support students in clinical area despite their high workload. Hospitals and training institutions also need to plan for the availability of essential equipment in the clinical area to help students gain the required clinical skills

Declarations

Data and material availability

The data and all supporting materials used in our manuscript are freely available to any scientist wishing to use them without breaching.

Ethical approval

Ethical clearance to conduct the study was obtained from the Malawi National Health Research Committee (NHSRC). Permission was sought from all institutions where the study was conducted. All participants granted a written informed consent to participate in the study.

Consent for publication

Consent to publish was obtained from the National Sciences Research Committee (NHSRC) and the institutions where the students were learning.

Competing interest

No conflict of interest has been declared by the authors.

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Author contribution

Proposal writing: BCM, FWK, MZ, AK & FL

Data collection: BCM, FWK, MZ, AK & FL

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Manuscript writing: BCM, FWK, MZ & AK

Mentorship & supervision of the entire work: TB, BT, AK, & MS

All the authors contributed adequately towards the completion of this study. Their carrier background played important roles.

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