

Knowledge, Practices and Barriers of Reflective Practice Among Undergraduate Nursing and Midwifery Students in Malawi

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Background: Reflective practice is widely recognized as an invaluable tool for improving the provision of nursing care, promoting professional and personal development, and ensuring ethical and effective practice. However, there is paucity of research regarding reflective practice in nursing education and practice in Malawi. This study lays the groundwork for future research, offering a foundation upon which subsequent studies can build to further explore and develop the practice of reflection in nursing and midwifery education in Malawi. Therefore, this study aimed to assess undergraduate nursing and midwifery students' knowledge, practices and barriers of reflection at Mzuzu and Daeyang Universities.

Methods: This study used a quantitative descriptive cross-sectional design employing a census approach. A self-administered questionnaire was used to collect data from 101 undergraduate nursing and midwifery students. Descriptive statistics and multivariate linear regression analyses were done using Statistical Package for Social Sciences (SPSS) version 25.

Results: Overall, 101 (100%) of the students had an understanding of the meaning of reflective practice. Majority, 99 (98%) of the students engaged in reflective practice. The results showed that better care outcomes negatively influenced the practice of reflection among the students (Coef = -0.11), (95% CI [-0.19, -0.03] P = 0.009). The study also revealed barriers to reflection, including unsupportive Clinical Learning Environment 53 (52.5%), unable to identify events to reflect upon 34 (33.6%), and time constraints 32 (31.7%). Further the results showed a significant difference between Mzuzu University students and Daeyang University students in terms of the support they received from nurses regarding reflective practice (Z = 12.3, P = 0.02).

Conclusion: The findings show a wide spread of knowledge and practice of reflection. More efforts are needed to put down the effects of the challenges observed such as structured reflection sessions and integration of a standardized reflection module in the curricula for nursing.

Keywords: reflection, reflective practice, nursing and midwifery students

Introduction

Nursing and midwifery education has embraced reflective practice as an invaluable tool to help nursing students learn from practice, as it is seen as the bedrock of professional identity.¹⁻³ Nursing and midwifery education deliberately uses practice-based learning to improve future actions in clinical practice by critically thinking and analyzing what is happening or has already happened.^{4,5} The nursing profession requires one to be responsive and reflective, instead of simply carrying out routine tasks or formalities of everyday practice.

Reflection has been defined in numerous ways by various scholars, organizations, and disciplines, highlighting its multifaceted nature and significance in personal and professional development.^{1,3,5} As quoted in Mjølstad and Getz (2023), the International Association for Medical Education (AMEE) characterizes reflection as “a metacognitive process



that occurs before, during, and after situations with the purpose of developing a greater understanding of both the self and the situation so that future encounters with the situation are informed from previous encounters". This definition emphasizes the dynamic and iterative nature of reflection, underlining its role in fostering deeper awareness and learning from experiences. The above definition is used in this study.

Reflection demands an attitude of open mindedness, responsibility and willingness to take on challenging issues and act on criticism.⁶⁻⁸ In practice, reflection can occur either during the moment of practice (also known as "reflection-in-action") or retrospectively (referred to as "reflection-on-action").⁹ Reflective practice requires one to have necessary skills such as self-awareness, description, critical analysis, synthesis and evaluation.^{10,11} Literature is evident that reflection is a vital component of clinical judgment, decision making, accountability and critical thinking.¹²⁻¹⁵ More over reflection is reported as an effective learning strategy that can assist nursing and midwifery students to become independent with sound clinical judgment.^{3,5,16} Literature also reveals the importance of reflective practice in plugging the theory-practice gap and improving personal and professional development.¹⁷⁻¹⁹ Therefore, nursing and midwifery students need to be able to reflect on the effectiveness of their decisions and practice as they progress towards becoming professionals. The more reflective practice is advocated, the more nursing and midwifery education and practice move towards "just Culture" which helps to improve care outcomes and decrease errors.

Many models of reflection have been developed over the years to guide the systematic, logical, and cyclical process of reflection.²⁰ Despite their development and effectiveness, the literature still reports on time constraints, difficulty in writing and understanding assignments, anxiety heightening, lack of supervision from clinical instructors and lecturers and unsupportive ward culture as barriers to its practice.^{6,16,18} Addressing these challenges requires systemic changes within educational programs, clinical environments, and support systems to create a culture that fosters and values reflection as an essential tool for professional growth.⁸

Nursing clinical instructors play a very significant role in helping students consolidate taught theories and practice through guided and regular reflection on professional experiences.^{21,22} Literature indicates that nursing and midwifery educational institutions in Malawi are dependent on qualified nurses to teach students because of a shortage of faculty.²³ However, these qualified nurses lack resources, feel exhausted, and fail to support students because of high workloads.²⁴⁻²⁶ Moreover, it is evident that the extent to which clinical learning takes place depends on the quality of the support the students receive from their clinical instructors.²⁷⁻²⁹ Therefore, nurse educators, including clinical instructors, need to be actively engaged in reflection to support students' learning needs.^{30,31}

The Nurses and Midwives Council of Malawi (NMCM) advocates reflective practice for its members.³² Therefore, nursing and midwifery teaching institutions are encouraged to incorporate a module on reflection into their curricula. However, there is no inclusion of a module on reflection in undergraduate nursing and midwifery curricula at Mzuzu and Daeyang Universities. Anecdotal evidence indicates that Mzuzu and Daeyang universities prepare their undergraduate nursing and midwifery students for reflective practice in the first year of the study program before they are attached to clinical areas for practice. Furthermore, no study has ever been conducted to assess the knowledge and practice of reflective practice among undergraduate nursing and midwifery students in Malawi.

Final-year undergraduate nursing and midwifery students' knowledge, practices and barriers of reflective practice are critical to their professional development, as these students are expected to have honed their reflective skills throughout their academic journey. By the final year, they should demonstrate a high level of competency in reflection, which is essential for continuous learning and self-improvement in their clinical roles. Evaluating their experiences not only provides insight into the effectiveness of their training but also serves as a form of exit assessment. This assessment is pivotal as it ensures that these soon-to-be qualified nurses and midwives possess the ability to critically analyze their actions, identify areas for improvement, and apply lessons learned to enhance the quality of patient care.

Assessing knowledge, practices and barriers of reflective practice among final-year undergraduate nursing and midwifery students contributes significantly to the body of knowledge on this subject. The findings provide invaluable insights that can enhance reflective practices among both practicing nurses and midwives as well as current students. The improved reflection facilitated by these insights is anticipated to lead to enhanced quality of patient care and better patient outcomes.

Moreover, the results of this study serve to inform and promote the inclusion of a dedicated module on reflection and reflective practice within nursing curricula. This provide administrators of nursing institutions with the evidence needed to advocate for curricular changes that emphasize the importance of reflection in nursing education. Additionally, the study has laid the groundwork for future research, offering a foundation upon which subsequent studies can build to further explore and develop the practice of reflection in nursing and midwifery education in Malawi.

Material and Methods

Study Design

This study employed a quantitative descriptive cross-sectional research design utilizing a census approach, in which the entire available population (101) was recruited.

Study Setting and Population

This study was conducted at Mzuzu University (Nursing and Midwifery Department) and Daeyang University College of Nursing and Midwifery. Mzuzu University is a public university while Daeyang University is a Christian institution under the Christian Health Association of Malawi (CHAM). The population comprised of 101 final-year undergraduate nursing and midwifery students at these two universities (50 for Mzuzu university and 51 for Daeyang university).

Data Collection and Management

Data was collected using a self-administered questionnaire adapted from previous studies, literature review, clinical and academic experience. To achieve face and content validity, the questionnaire was reviewed by an expert panel comprising of two associate professors, one with a doctorate degree and one with master's degree and necessary changes were made.

The questionnaire had 28 items encompassing four parts: demographic information (3 items), knowledge of reflective practice (6 items), practice (8 items) and Barriers (11 items).

The survey questionnaire was pretested at another university other than the study site before actual data collection to achieve reliability. Written informed consent was obtained prior to completing the pretest. 10 students were involved and they took an average of 15 minutes to complete the questionnaires. No changes were made.

Actual data collection was conducted between July and September 2023. The researchers planned for this period because they wanted to find the students during their learning sessions. Participants' privacy and confidentiality were protected at all stages of the study as a separate room for data collection process was provided at each site, participants' IDs were used for anonymity. Prior to the administration of the questionnaire, the researcher welcomed the participant, introduced self, explained the aim of the study, and outlined the data collection procedure to build a trusting relationship. Informed consent was also sought from all participants. Those who were willing to participate were given a chance to read the questionnaire in the presence of the researcher. Then they were allowed to ask where they did not understand for clarification. The students were accessed through the deans of faculty at both sites. The completed data collection tools were packed and sealed in envelopes and stored on a lockable drawer. The data entered into a computer were stored in password-protected files known by the investigator. Only the principal investigator had access to the data.

Exclusion criteria: Final year undergraduate nursing and midwifery students that are not generic at MZUNI and Daeyang University. This included students from other years of study, as well as those enrolled in other nursing programs such as Upgrading and postgraduate courses.

Procedure for Obtaining Informed Consent

The investigators developed an informed consent form which had two parts. The first part contained information regarding the study including; the purpose, type of research intervention, participants selection, voluntary participation and right to withdraw at any time, expected duration of the subject's participation, risks, benefits, who to contact for further information and sharing the results. The second part contained a certificate of consent where the participant voluntarily confirmed their willingness to participate in the study. To obtain the consent, the informed consent forms were distributed to the participants to read and understand the study aspects. The participants were encouraged to ask questions

where they did not understand, the investigator assessed participants' understanding and willingness and were given time to make a decision followed by confirmation of their voluntary participation. Name, signature and date of the participant and the one obtaining consent were indicated. This written consent was obtained from each participant prior to completing the questionnaire. The signed informed consents were kept in a separate envelope from the questionnaires.

Data Analysis

Data were statistically analysed using the IBM Statistical Package for the Social Sciences (SPSS) version 25.0. Descriptive and comparative statistical analyses were performed for the study variables. The significance level was set at $P < 0.05$. subsequently the χ^2 test was employed to discern the statistical significance of the differences in proportions pertaining to the practice of reflection. These analyses investigated the associations and distinctions within the study data, which yielded valuable insights into the dimensions of reflective practices across the two universities.

Ethical Considerations

Ethical approval was obtained from the Research Ethics Committee of Mzuzu University (MZUNIREC/DOR/23/57). Permission was obtained at each study sites. Written informed consent was obtained from respondents. They were informed that they had the option not to respond to the survey. Participation in this study was voluntary.

Results

This study aimed to assess knowledge, practices and barriers of reflective practice among undergraduate nursing and midwifery students at Mzuzu and Daeyang Universities.

Demographic Statistics

As shown in Table 1, a total of 101 final-year students (101) participated in this study. No one withdrew from the study representing 100% response rate. Of the 101 respondents, 70(69.3%) were female. The median age of the participants was 25 years, with an interquartile range of 5 years and mean age of 23.84. There was a significant difference in the age of the respondents from Daeyang and Mzuzu University ($P < 0.001$).

Table 1 Participants' Demographic Characteristics by Study Site

N=101			
	Daeyang University n(%)	Mzuzu University n(%)	P-values
Gender			
Male	15(29.4)	15(30.0)	0.5
Female	36(70.6)	34(68.0)	
Other	0	1(2.0)	
Age Group			
19–24yrs	36(70.6)	18(36.7)	0.001*
25–30yrs	13(25.5)	20(40.8)	
30+yrs	2(3.9)	11(22.6)	
Median (IQR) age			
Male	24(5)	30(8)	
Female	23(4)	24(5)	
Other	0	25(0)	

Notes: * Indicates a statistically significant result.

Table 2 Knowledge of Reflective Practice by Study Site

Variables	Categories	Daeyang University n (%)	Mzuzu University n (%)
Definition	Own Definition	8(15.7)	15(30.0)
	Looking back	12(23.5)	6(12.0)
	Reviewing Actions	25(49.0)	28(56.0)
	Critical thinking	6(11.8)	1(2.0)
Source of knowledge	Lecturer/Classroom	40(78.4)	46(92.0)
	Clinical area from colleagues	2(3.9)	4(8.0)
	Qualified nurse	5(9.8)	0
	Internet	2(3.9)	0
	Others	2(3.9)	0
Learning process of reflection	Normal	38(74.5)	41(82.0)
	Easy	5(9.8)	5(10.0)
	Difficult	8(15.7)	4(8.0)
Reflection helps in difficult situations	Yes	30(58.8)	37(74.0)
	No	21(41.2)	13(26.0)
Reflection influence on actions and reactions toward situations	Yes	51(100.0)	50(100.0)
	No	0	0
Reflection is useful	Yes	51(100.0)	50(100.0)
	No	0	0

Knowledge of Reflective Practice

The results in Table 2 have revealed that over half, 53 (52.5%) of all participants defined reflective practice as reviewing actions, 23 (22.8%) as own definition of a happened event, 18 (17.8%) as looking back, and seven (6.9%) said that reflective practice meant critical thinking. More participants 28(56%) from Mzuzu University defined reflective practice as reviewing actions than there were from Daeyang University, 25(49.0%). Of all participants, 6(5.9%) indicated that they learned reflection from the clinical area or colleagues, seven (9%) from qualified nurses and the Internet, and 86 (85.1%) learned reflection from their lecturer or classroom. All participants 101 (100%) agreed that reflective practice was useful and influenced their actions and reactions to situations as shown in Table 2.

Practice of Reflection

Almost all participants 99 (98%) reported that they were practicing reflection. Participants were asked to select multiple answers from a given list of factors that motivate them to practice reflection; 74 (73.3%) indicated that reflection practice shapes future actions/interventions in similar situations, 49 (48.5%) indicated that it provides a satisfactory outcome of learning/care, with those who chose emotional maturity and boosting confidence as the motivational factors at 33 (32.7%) and 34 (33.7%) respectively. Majority of the participants 85(84.2%) believed that those who practiced reflection had better healthcare delivery outcomes than those who did not practice reflection. Table 3 shows participants' views on practice of reflection.

Table 3 Participants' Views on Practicing Reflection

Variables	Categories	Daeyang University n(%)	Mzuzu University n(%)
Factors influencing reflective practice	Satisfactory outcome of learning/care	27(52.9%)	22(44.0)
	Emotional maturity as I reflect on negative events.	15(29.4)	18(36%)
	It boosts confidence	19(37.3)	15(30.0)
	It shapes future actions/ interventions in similar situations	32(62.8)	42(84.0)

(Continued)

Table 3 (Continued).

Variables	Categories	Daeyang University n(%)	Mzuzu University n(%)
Outcomes of reflection	Modification of future actions	36(70.6)	36(72.0)
	Satisfactory outcomes on similar events	13(25.5)	11(22.0)
	Enhanced emotional strengths	2(3.9)	3(6.0)
	Regretted practicing reflection	0	0
Reflective practice influence perception of situations	Yes	51(100)	49(98.0)
	No	0	1(2.0)
Observed difference between yourself and those who do not practice reflection	Yes	46(90.2)	44(88.0)
	No	5(9.8)	6(12.0)
Care outcomes better than those who do not practice reflection	Yes	42(82.4)	43(86.0)
	No	9(17.6)	7(14.0)

Multivariate Analysis on Practice of Reflection

Linear probability regression model analysis was used to identify factors associated with reflection practice while adjusting for covariates. “Do you practice reflection” was the dependent variable. The significant variables from the bivariate analysis with a P-value of less than 0.05 were included in the regression model as independent variables. Age, Gender, and College, though not significant during the bivariate analysis, were still included in the linear probability regression analysis because of the interest the researcher had in these variables. Associations are displayed as coefficients with 95% confidence intervals.

Multivariate linear regression analysis showed that better care outcomes negatively influenced the practice of reflection among the participants (Coef= -0.11), (95% CI [-0.19, -0.03] P =0.009) as shown in Table 4.

Table 4 Linear Probability Model Analysis Output

Variable	Coefficient	95.0% Confidence Interval	P-value
College			
Daeyang	Ref.		
Mzuni	-0.01	-0.06 0.06	0.92
Gender			
Male	Ref.		
Female	-0.05	-0.11 0.02	0.09
Others	-0.03	-0.30 0.24	0.83
Age Category			
19–24yrs	Ref.		
25–30yrs	-0.01	-0.07 0.05	0.708
30yrs+	0.01	-0.09 0.09	0.833
Will you recommend a reflection?			
Yes	Ref.		
No	-0.12	-0.25 0.02	0.08
Knowledge a barrier to Reflective practice			
Yes	Ref.		
No	0.04	-0.03 0.11	0.251
Ever failed to practice reflection			
Yes	-0.02	-0.12 0.07	0.616
No	Ref.		

(Continued)

Table 4 (Continued).

Variable	Coefficient	95.0% Confidence Interval	P-value
Care Outcomes better than those who do not practice reflection			
Yes	Ref		
No	-0.11	-0.19 -0.03	0.009*
Clinical learning environment a barrier to Reflective practice			
Yes	Ref		
No	0.02	-0.04 0.08	0.518

Notes: *Indicates a statistically significant result.

Table 5 Barriers to Reflective Practice

Variables	Categories	Daeyang University n(%)	Mzuzu University n(%)
Ever failed to reflect on some situations	Yes	46(90.2)	45(90.0)
	No	5(9.8)	5(10.0)
Barriers to practice reflection	Lack of knowledge about reflection	14(27.5)	13(26.0)
	Lack of time	19(37.3)	13(26.0)
	Emotional consequences	25(40.0)	7(14.0)
	Unsupportive Clinical Learning Environment	21(41.2)	32(64.0)
	Unable to identify events/situations to reflect upon	16(31.4)	18(36.0)
Consider recommending reflection	Yes	48(94.1)	48(96.0)
	No	3(5.9)	2(4.0)

Barriers to Reflective Practice

Participants were asked to select multiple answers from a given list of barriers to reflective practice, The results in [Table 5](#) demonstrated that over half, 53 (52.5%) of the participants cited the unsupportive clinical environment as the main barrier to practice reflection. Inability to identify events or situations to reflect upon was also mentioned by 34 (33.6%) of the Participants as a barrier to reflection, followed by lack of time and emotional consequences at 32 (31.7%), and a lack of knowledge at 27 (26.7%). [Table 5](#) shows the barriers to reflective practice.

Reflective Practice Support

As shown in [Table 6](#), the majority of Participants 63 (62.4%) reported having received support from qualified nurses regarding reflective practices. However, over half 27(54%) of Participants from Mzuzu University indicated they did not receive reflective practice support from qualified nurses whilst in the clinical area. Less than half 40 (39.7%) of the

Table 6 Support on Reflective Practices from Qualified Nurses

Variables	Categories	Daeyang University n(%)	Mzuzu University n(%)
Receive support from qualified nurses	Yes	40(78.6)	23(46.0)
	No	11(21.6)	27(54.0)
Support from qualified nurses is essential	Yes	46(90.2)	49(98.0)
	No	5(9.8)	1(2.0)
Need support and guidance from qualified nurses	Disagree	6(11.7)	4(8.0)
	Not Sure	9(17.6)	7(14.0)
	Agree	36(70.6)	39(78.0)

(Continued)

Table 6 (Continued).

Variables	Categories	Daeyang University n(%)	Mzuzu University n(%)
aliQualified nurses should be consistent	Disagree	5(9.8)	0
	Not Sure	8(15.7)	13(26.0)
	Agree	38(74.5)	37(74.0)
Qualified nurses are interested in supporting me	Yes	25(49.0)	15(30.0)
	No	26(50.9)	35(70.0)
Happy with qualified nurses' support	Yes	29(56.9)	17(34.0)
	No	22(43.1)	33(63.0)
Qualified nurses have knowledge of reflective practice	Disagree	6(11.8)	6(12.0)
	Not Sure	22(43.1)	29(58.0)
	Agree	23(45.1)	15(30.0)
Qualified nurses engage in reflective practice	Yes	33(64.7)	21(42.0)
	No	18(35.3)	29(58.0)

Participants reported that nurses were interested in supporting them, whereas 61 (60.4%) reported that nurses were not interested in supporting them. The majority of Daeyang students were satisfied with the support provided, while the majority of Mzuzu University students were not satisfied. Cumulatively, 46 (45.5%) students were happy with the support-qualified nurses, while 55 (54.5%) were unhappy. The cross-tabulation table shows that Mzuzu University students were more unhappy 33/50 (63%) than Daeyang University students who had 22/51 (43.1%). A Z-test showed significant differences in the responses at $Z = 12.3$, $P = 0.02$.

Discussion

The demographic analysis of the study population provides significant insights into the characteristics of final-year undergraduate Nursing and Midwifery students at Daeyang and Mzuzu Universities. These insights are crucial for understanding the context in which the study was conducted and interpreting the findings related to reflective practice. Similar studies have shown a larger proportion of female students in their reflective practice studies.^{16,33}

The demographic characteristics of the study population provide a foundational context for understanding the reflective practices of final-year undergraduate Nursing and Midwifery students at Daeyang and Mzuzu Universities. The gender and age distributions, along with the balanced representation from both universities, offer critical insights that will inform the interpretation of the study's findings. Future studies should consider these demographic factors to enhance the generalizability and applicability of research on reflective practice in nursing education.

The study results showed that more than 98% of the students were knowledgeable about reflective practices. Most students responded that reflective practice is a process of reviewing past actions, whether right or wrong, to learn and improve future practice. This aligns with Dewey's (1933) concept of reflection as "active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further conclusions to which it tends".³⁴ The responses also suggested that students perceived reflection as a means of critically analyzing clinical situations, which echoes Schön's (1983) notion of reflection-in-action and reflection-on-action in which professionals reflect during and after an event to improve practice.⁹

The variation in definitions among students indicates a lack of a unified understanding of reflective practice, which may stem from differences in how the concept is taught and reinforced in their respective colleges. Some students associated reflective practice with critical thinking, which is consistent with the literature that posits reflection as a tool for developing critical thinking skills.^{5,13,35} This suggests that, while students recognize the importance of reflection, there is a need for clearer and more consistent teaching approaches to ensure that all students have a comprehensive understanding of what reflective practice entails. The literature emphasizes the importance of integrating reflective practice into nursing and midwifery education to foster professional growth and improve clinical competence.^{6,8,19} This

supports the argument that the quality and depth of reflective practice are influenced by how well the concept is taught and integrated into clinical training.^{35,36}

The diverse definitions of reflective practice highlight the need for clear and consistent teaching of its concepts and benefits. Educators should ensure that students understand the various dimensions of reflective practice and how it can be applied to enhance their professional development. Reliance on formal education settings for learning about reflection suggests that educators play a crucial role in fostering reflective skills. Therefore, nursing programs should prioritize training educators in effective methods for teaching and facilitating reflective practice.

The students identified several benefits of reflective practice including improved patient care, enhanced critical thinking, and emotional maturity. These benefits are well supported by the literature. For instance, reflective practice is widely recognized for its role in improving clinical decision-making and patient outcomes.^{37–39} The students' responses also align with studies that highlight the role of reflection in fostering emotional resilience and professional identity formation in nursing.^{11,40,41} This suggests that reflective practice not only enhances students' technical skills but also contributes to their overall professional development. Educational institutions and healthcare organizations should prioritize reflective practice as a core component of their curricula and training programs to prepare competent, empathetic, and resilient healthcare professionals.⁴²

The study revealed that almost all respondents (98%, n=99) reported practicing reflection. This high engagement rate underscores the importance of reflective practice in nursing education and its perceived value among students. The results demonstrated that students were able to engage in reflective practice after learning the basic frameworks from the beginning of their studies. This study identified several factors that enable students to engage in reflective practice, including shaping future actions/interventions in similar situations, satisfactory learning and patient care outcomes, emotional maturity, and confidence boosting. These enablers are consistent with the existing literature that highlights the importance of situational triggers in prompting reflection.^{6,16,37} The findings also suggest that reflective practice is often initiated by the need to solve complex clinical problems or to understand and learn from significant events in their practice.^{7,8,17}

While reflective practice offers numerous benefits for healthcare professionals, the study findings showed that several barriers hinder effective practice. In assessing barriers to reflective practice, 90% of the students indicated having had challenges in practicing reflection in some situations. The most cited reason was an unsupportive clinical learning environment, followed by an inability to identify events to reflect upon, lack of time, and lack of knowledge about reflection. Reflective practice is widely acknowledged as a fundamental component of professional development in nursing and midwifery.^{1,3,6,7} Literature reveals similar barriers to reflective practice.^{6,16,37} The challenges reported by the students indicate a need for additional support and resources. Providing more opportunities for guided reflection, peer mentoring, and access to digital resources could help address these challenges and enhance students' reflective abilities.

Students from Mzuzu University reported less support from nurses than Daeyang University students. Nonetheless, most students expressed a lack of clinical support from the nurses. Most respondents alluded that qualified nurses had poor knowledge of reflective practice and did not engage in reflective practice. Negative experiences in clinical learning environments are prevalent in Malawi. The literature shows that nursing and midwifery students in Malawi receive inadequate support from nurse educators, clinical teachers, and staff regarding their clinical learning.^{25–28} Literature is evident that supportive clinical learning environments and guidance on effective reflection can enhance students' abilities.^{29–31} To address this issue, there should be a focus on fostering a culture of reflection within clinical settings, where all healthcare professionals are encouraged and supported to engage in reflective practice.

The findings of this study have several implications for nursing and midwifery education;

There is need to integrate a standardized module on reflective practice in nursing and midwifery programs for a more consistent and comprehensive approach to teaching reflective practices across nursing programs. This includes ensuring that all students receive adequate instruction on reflective models and have the opportunity to apply them in a clinical setting.

Nursing educators and clinical teachers should receive training on how to effectively support their students in reflective practice. This includes understanding the reflective process and providing constructive feedback.

Efforts should be made to align theoretical instruction on reflective practice with the realities of clinical practice in Malawi. This could involve incorporating practical examples and case studies of reflection into the curriculum.

Nursing institutions should foster a culture that values and supports reflective practice. This can be achieved by integrating reflection into routine clinical activities, encouraging open discussions on clinical experiences, and deliberate inclusion in Continuous Professional Development (CPD) activities.

Limitation

The study assessed knowledge, practices and barriers among final year undergraduate nursing and midwifery students only, therefore results cannot be generalized. Further studies should look into the perspectives of clinical staff and nurse educators.

Conclusion

To the best of our knowledge, this study is the first of its kind in Malawi to assess knowledge, practices and barriers among undergraduate nursing and midwifery students. This study showed that students had wide spread knowledge and practices of reflective practice. This shows the potential to develop and advance future practice. This study also highlighted various barriers to effective implementation of reflective practice. Addressing these barriers requires a multifaceted approach that includes improving the clinical learning environment, enhancing both students and qualified nurses' knowledge and skills, and fostering a culture of reflection in healthcare settings. This study revealed the need to advocate reflective practice as a valuable learning strategy in nursing and midwifery education. There is a need to integrate standardized structures and processes of reflective practice in curricula for nursing and midwifery programs in Malawi to produce a ready-reflective nursing and midwifery generation that will improve patient care provision and outcomes amid complex health care conditions and situations. Policy makers must consider to make reflective practice compulsory for all nursing and midwifery students as well as practicing nurses. Nurse leaders to incorporate reflective practice in Continuous Professional Development (CPD) activities to improve nurses' reflective practice.

Data Sharing Statement

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Ethical Considerations

The study complies with the Declaration of Helsinki and Ethical approval was obtained from the Research Ethics Committee of Mzuzu University (Ref. No: MZUNIREC/DOR/23/57). Clearance from the study sites was sought by the university authorities. All respondents provided written informed consent. The identity numbers were used to ensure anonymity.

Consent for Publication

No personal data was collected from the participants.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

The authors declare no competing interest in this work.

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