

# Factors Influencing A Conducive Environment For Bscn Students During Clinical Placement At Selected Teaching And Referral Hospitals In Kenya.

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## ABSTRACT

**Aim:** To determine factors influencing a conducive environment for BscN students during clinical placement at selected Teaching and Referral Hospitals in Kenya.

**Background:** Clinical environment competence skills are of paramount importance in developing a critical analytical thinker and hands-on nurse, who can make decisions and take appropriate action immediately. However, the ability of the current learning and clinical structures possess gaps that can be reviewed to improve the level of competency among BscN students. The information and abilities pertaining to midwifery are transferable with the BscN expecting students to exhibit a higher degree of competency. In order to assist BScN students in bridging the gap between theory and practice, the clinical experience component of the BScN program requires instructors and mentors who can serve as role models, are well-informed, and are competently prepared.

**Methodology:** This was an analytical cross-sectional study using both qualitative and quantitative methods. The study was conducted among nursing instructors, mentors, third- and fourth-year BScN students during midwifery clinical practice in both Kenyatta National Hospital (KNH) and Moi Teaching and Referral Hospital in Kenya. The study was carried out in Kenya (MTRH). The selection of these 307 midwifery students on clinical placement at the research regions was accomplished through the use of systematic random sampling technique. Purposive sampling strategy was employed to recruit nine mentors into the study. For the purpose of gathering quantitative data, a self-administered, semi-structured, and previously tested questionnaire was employed. A qualitative observations and field notes taking was done with details of what was noticed. Interviews were conducted with the respondents, and the results were recorded and transcribed verbatim. Data analysis was done using descriptive and inferential analysis approaches. Chi-square test was used to determine factors associated with competency among BScN students and intervention of danger signs, obstetric emergencies. Cross tabulation was done to find association between independent and dependent variables. Unadjusted odds ratio (OR), p-values (p) as well as 95% confidence intervals (CI) was reported. A P-value of < 0.05 was regarded as statistically significant. Thematic analysis approach was used to analyze qualitative data using NVivo 11.

**Results:** The average age of the respondents was 23(SD±1.5) years with more than half, 51.5% (171) were aged less than 23 years. The overall competency was 69.7%. The findings showed that tutoring services, 79.5% (244), student counseling, 76.9%(236), tutoring services, support in placement area, 57.3% (176), student health services, 53.1% (163) and peer support groups, 50.2% (154) were the most available support services to respondents in the placement facilities. Further, 11.7%(36) of the respondents stated that the number of hours spent at clinical practice sites is not enough, 41.4% (127) of the respondents stated that the number of preceptors or supervisors available at clinical practice sites at the time you need them is not enough. The findings also showed that 44.6%(137) of the respondents stated that the opportunities to practice under supervision were not enough, 45%(138) stated that the number of qualified midwives is not enough. The findings revealed that having student counselling (OR =4.63, 95%CI:2.64 – 8.13, p<0.001), student health services (OR =3.1, 95%CI:1.81 – 5.3, p<0.001), having tutoring services (OR =2.51, 95%CI:1.39 – 4.53, p=0.004) and having peer support group (OR =2.4, 95%CI:1.44 -4.0, p =0.001) were significantly associated with high level of competency among students on clinical placement. Lectures with discussion (OR =5.0, 95%CI:2.57 – 9.98, p<0.001), discussions (OR =1.87, 95%CI:1.02 – 3.41, p=0.042), group work (OR =7.47, 95%CI: 3.86 -14.45, p<0.001) and problem-based learning (OR =3.89, 95%CI:1.98 -5.80), p<0.001) were significantly associated with increased likelihood of having adequate competency.

**Conclusion and recommendation:** The findings have showed that there is a higher gap in competency among midwifery students. Thus, integration of lectures with discussion, discussions, group work and availability of services within clinical environment is fundamental in achieving higher level of competency.

**Keywords:** *Clinical environment, competency in nursing care, Competency skills, conducive environment.*

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## **I. Background**

Clinical environment competence skills are of paramount importance in developing a critical analytical thinker and hands-on nurse, who can make decisions and take appropriate action immediately. Majority of the nurses acquire the most important competencies required for high quality practice today and for future practice. Their clinical learning is focused on real problems of the patient and management in the context of professional practice. Hence, clinical-based education for nursing/midwifery is a major component that comprises of 50% of the nursing curriculum (Azugbeneet al., 2017). Studies done globally, regionally and locally have shown emerging gaps in BScN-Direct Entry clinical training. Concerns raised touch on the level of competence of newly graduated BScN-Direct Entry nurses regarding translation of classroom knowledge into clinical practice (Hasan et al., 2013). On the same line a study by Wolf et al., (2017) Kenya on the competence of newly qualified BScN nurses, identified gaps in clinical judgment abilities (competence). The study found out that BScN nurses required support on "hands on" training. A training gap is evident in the Kenyan health institutions having nurses deficient in practical skills needed in patient care as cited by (Ameh&Shikuku, 2020). The training of Bachelor of Science Nursing (BScN) students entails clinical nurse instructors to help students translate theoretical knowledge into clinical skills and attitudes needed in the nursing profession. Over the decade's employers have raised concerns about BScN nurses lacking adequate clinical skills and behavioral abilities required for safe patient care. According to Song and McCreary, (2020) USA newly graduate nurses are often equipped with theoretical knowledge and lack practical skills referred to as "soft skills" which are key in job retention. This implies that there is a major gap between theory and practice and yet Nursing is hands on profession. Mentors play a critical role in giving learners the needed medical or nursing experiences to support their professional development. Moreover, the students are introduced to specific concepts and theories of learning before moving on to practice.

## **II. Methods**

### **Study design and target population**

This was an analytical cross-sectional study conducted to investigate the competency of midwifery students and understand the underlying association. The study was conducted among midwifery students, nursing instructors and mentors placed on clinical rotation at Kenyatta National Hospital and Moi Teaching and Referral hospital which are leading teaching and training hospitals in Kenya.

The target study population was 3<sup>rd</sup> and 4<sup>th</sup> years BScN (Direct Entry) students, mentors/clinical instructors who were in the KNH and MTRH midwifery departments at the time of the study. The two referral hospitals, KNH and MTRH were selected to cover both Eastern and Western regions among others and the two were taken as a national representation. The Focus group discussion were key informants 8-12 who are nursing managers, instructors/ mentors from the midwifery departments. Interview were conducted from prenatal clinic and postnatal departments of KNH and MTRH and the key informants allocated to those departments at the time of the study.

### **Sample size and sampling**

Sample size of the students who took part in the research were calculated by use of Fischer's formula where 307 students were enrolled into the study. Systematic sampling technique was used to sample midwifery students in the study area while purposive sampling technique was used to sample nursing instructors and mentors.

### **Validity and reliability of study tools**

The tools were pretested with 2 qualified nurse midwives from Thika level five hospital who are not designated mentors by institution, and 28 4<sup>th</sup> years nursing students in teaching practice. This assisted in modifying the tool to give research assistants chance to observe on how they collected data prior to the real study. Pretesting helped in checking the validity of the questionnaire, the extent to which the scores from a measure represent the variable they are intended. Validity established using a panel of experts.

Instrument validity refers to how accurately a method measures what is intended to measure. The validity avoids ambiguity to ensure that all respondents understand the questions and respond in accuracy. All variables as contained in the study objectives were adequately covered by the instruments by actually using them to guide the design of the instruments. The accuracy of the instrument enabled the researcher to make final modifications.

**Data assurance**

There was tight control and monitoring by the principal investigator of the research during the actual data collection to guarantee value of information.

The research assistants were trained on filling out the questionnaires correctly to enhance accuracy and validity. At the end of each day, the principal investigator checked the questionnaires oversight and likely mistakes entered to make sure that all questions were tackled evidently and properly documented.

**Data management and analysis**

The data was organized, screened and checked for completeness. It was then coded and entered into the computer, and cross checked with the original data for accuracy. The descriptive and inferential statistics was generated and reported appropriately. Specifically, data was descriptively analyzed into proportions and summarized in frequency tables. Chi-square test was used to determine associations between midwifery theory and clinical practice among BScN students and intervention of danger signs, obstetric emergencies. Student t-tests was used to analyze associations between current midwifery theory into practice against identifying causes of maternal mortality and management of causes. Cross tabulation was done to find association between independent and dependent variables. Statistical significance was assessed using chi-square test for categorical data. Unadjusted odds ratio (OR), p-values (p) as well as 95% confidence intervals (CI) was reported. A P-value of < 0.05 was regarded as statistically significant thus assisting in the development of the innovative midwifery practice training model for Bachelor of Science in nursing students during clinical placement in identification and management of maternal mortality causes at KNH and MTRH. Quantitative data was analyzed using SPSS Scientists software Version 28 whereas; inferential analysis using Chi-square tests was done to establish relationship between midwifery application of theory to practice and student preparedness in managing the causes of MM during practice.

Qualitative data was analyzed using NVivo program version 11 where themes and sub- themes that constitute narrative based on research objectives was be summarized in graphs and matrices. The results were shared with the stake holders of the selected referral and teaching hospital, and Ministry of Health. Ethical approval was obtained from MKU ethics committee, KNH-UoN ethics review committee and IREC Review committee. Permission was also obtained from NACOSTI.

**III. RESULTS**

**Demographic characteristics of the study respondents**

The findings revealed that 51.5% (158) of the respondents were female. The average age was 23(SD±1.5) years with more than half, 51.5% (171) were aged less than 23 years. Almost all of the respondents,99% (n =304) had attended skills training as shown in Table 1.

**Table 1:** Demographic characteristics of the study participants

	Frequency	Percent
Gender		
Male	149	48.5
Female	158	51.5
Age (Mean	23+1.5	
<23 years	171	55.7
>=23 years	136	44.3
Year of study		
3	95	30.9
4	212	69.1
Attended skills training		
Yes	304	99.0
No	3	1.0

**Support are available at the practical site to promote skills in Midwifery**

The findings showed that tutoring services, 79.5% (244), student counseling, 76.9% (236), tutoring services, support in placement area, 57.3% (176), student health services, 53.1% (163) and peer support groups, 50.2% (154) were the most available support services to respondents in the placement facilities as shown in Figure 1.

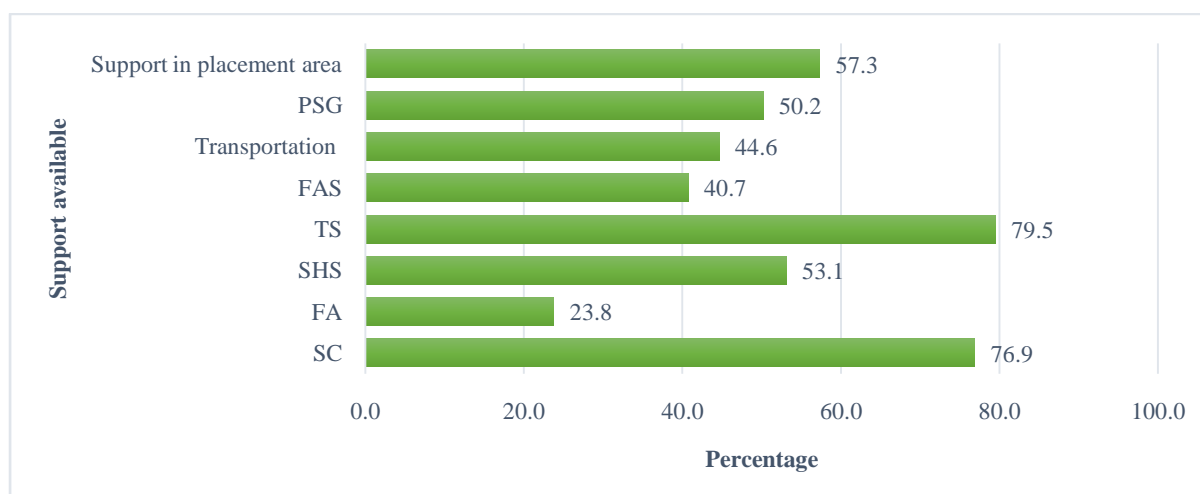


Figure 1: Support are available at the practical site to promote skills in Midwifery

### Clinical environmental factors associated with competency among midwifery students on clinical placement

Clinical environmental factors were also investigated in this study as shown in Table 2. The findings revealed that having student counselling (OR =4.63, 95%CI:2.64 – 8.13, p<0.001), student health services (OR =3.1, 95%CI:1.81 – 5.3, p<0.001), having tutoring services (OR =2.51, 95%CI:1.39 – 4.53, p=0.004) and having peer support group (OR =2.4, 95%CI:1.44 -4.0, p =0.001) were significantly associated with high level of competency among students on clinical placement.

Table 2: Clinical environmental factors associated with competency among midwifery students on clinical placement

	Adequate	Inadequate	OR(95%CI)	P-value
Student counselling				
Yes	184(86)	53(57)	4.63(2.64 - 8.13)	p<0.001
No	30(14)	40(43)	Ref	
Financial assistance				
Yes	50(23.4)	23(24.7)	0.93(0.53 - 1.64)	0.884
No	164(76.6)	70(75.3)	Ref	
Student health services				
Yes	111(51.9)	24(25.8)	3.1(1.81 - 5.3)	p<0.001
No	103(48.1)	69(74.2)	Ref	
Tutoring services				
Yes	184(86)	66(71)	2.51(1.39 - 4.53)	0.004
No	30(14)	27(29)	Ref	
Flexibles academic schedule				
Yes	83(38.8)	42(45.2)	0.77(0.47 -1.26)	0.314
No	131(61.2)	51(54.8)	Ref	
Transport				
Yes	93(43.5)	44(47.3)	0.87(0.53 -1.42)	0.535
No	121(56.5)	49(52.7)	Ref	
Peer support group				
Yes	114(53.3)	30(32.3)	2.4(1.44 - 4.0)	0.001
No	100(46.7)	63(67.7)	Ref	
Support in the placement area				
Yes	135(63.1)	41(44.1)	0.84(0.51 - 1.38)	0.532
No	79(36.9)	52(55.9)	Ref	

### Perception on aspects of clinical practice facilities among midwifery students

The findings revealed that 11.7%(36) of the respondents stated that the number of hours spent at clinical practice sites is not enough, 41.4% (127) of the respondents stated that the number of preceptors or supervisors available at clinical practice sites at the time you need them is not enough. The findings also showed that 44.6%(137) of the respondents stated that the opportunities to practice under supervision were not enough, 45%(138) stated that the number of qualified midwives is not enough. More than half of the respondents, 57.3%(176) stated that resuscitation equipment /delivery room infrastructure /essential supplies are not enough as shown in Table 3.

Table 3: Perception on aspects of clinical practice facilities among midwifery students

Perception on aspects of clinical practice	Not enough	Enough	Too many
Number of students assigned to a health facility at one time	12(3.9)	231(75.2)	64(20.8)
Average number or volume of patients at practice sites	42(13.7)	229(74.6)	36(11.7)
Number of hours spent at clinical practice sites	36(11.7)	261(85)	10(3.3)
Number of preceptors or supervisors available at clinical practice sites at the time you need them	127(41.4)	164(53.4)	16(5.2)
Opportunities to practice under supervision	137(44.6)	170(55.4)	0
Clinical instructors			
Qualified Midwives	138(45)	159(51.8)	10(3.3)
Qualified Nurses	136(44.3)	160(52.1)	11(3.6)
Obstetricians	171(55.7)	136(44.3)	0
Paediatricians	166(54.1)	141(45.9)	0
EOC/ and Equipment/sterilization/infection control	143(46.6)	149(48.5)	15(4.9)
Oxytocin.	20(6.5)	287(93.5)	0
Resuscitation equipment /delivery room infrastructure. /essential supplies.	176(57.3)	131(42.7)	0

**Ability of classroom and clinical instructors to use effective teaching methods that facilitate and support student in midwifery learning**

The ability of the classroom and clinical instructors using effective teaching methods were assessed as shown in Figure 2. The findings showed that 84.7% (260) of the respondents stated that classroom teachers/instructors had adequate ability, 69.4% (213) of the respondents affirmed that demonstration room instructors had adequate ability while 65.5% (201) of the respondents rated the clinical preceptor/supervisor’s ability was adequate.

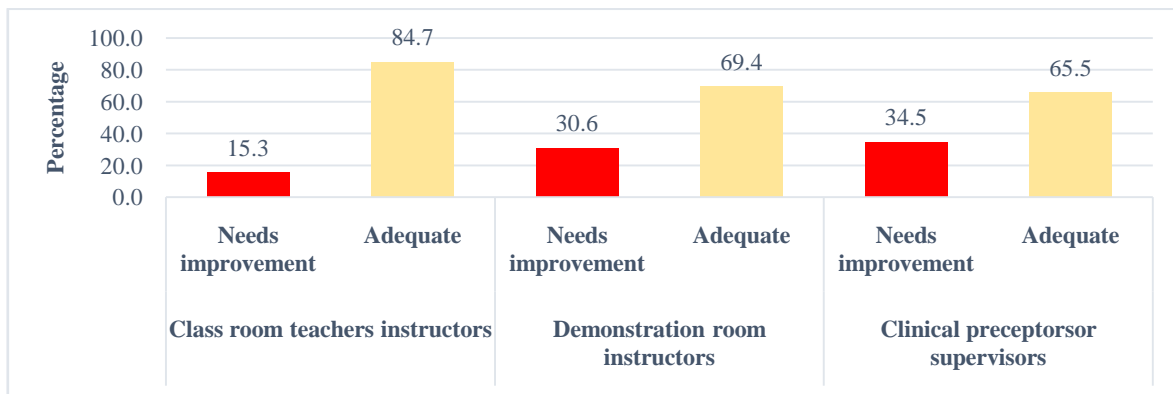


Figure 2. Ability of classroom/clinical instructors to use effective teaching methods

**The availability of teachers to assist you and respond to your questions both during and in between midwifery classes**

**Availability of classroom teachers/instructors**

Majority of the respondents, 72.6% (223) stated that classroom teachers/instructors were sometimes available with 20.2% (62) stating that they are always available as shown in Figure 3.

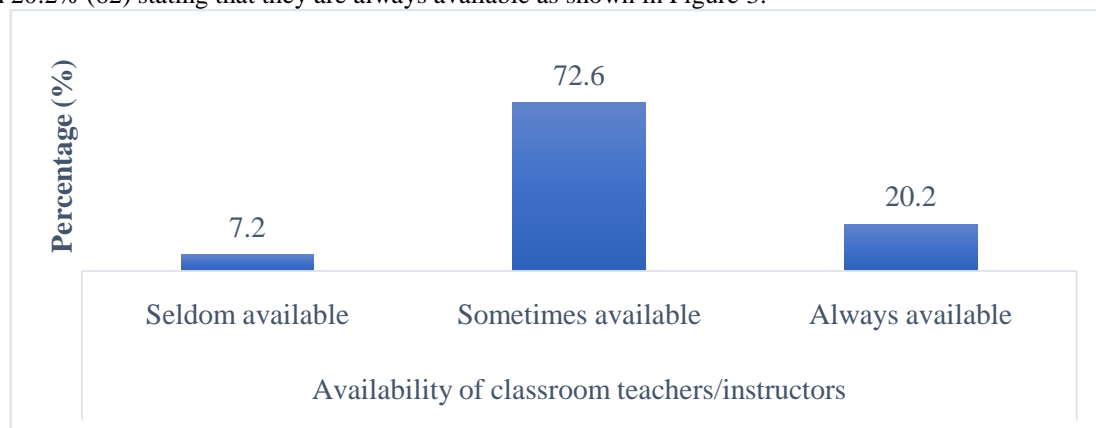
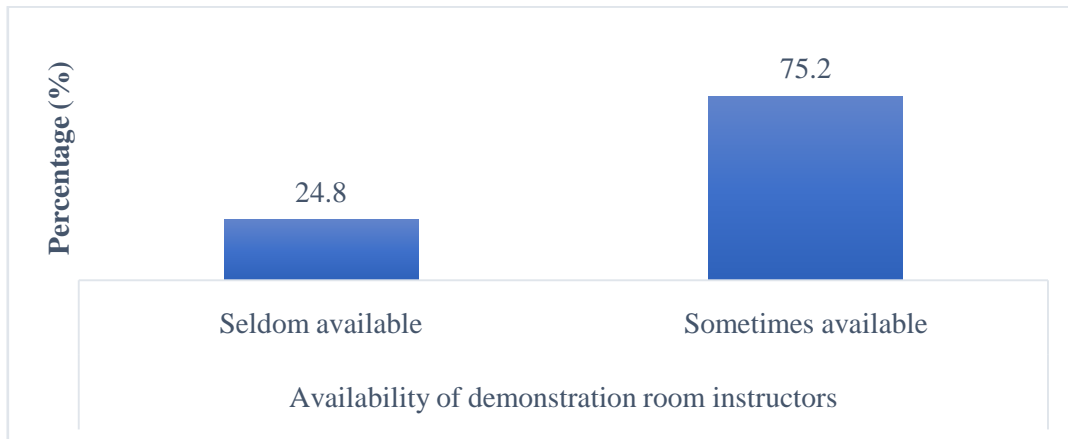


Figure 3: Availability of classroom teachers/instructors

**Availability of demonstration room instructors**

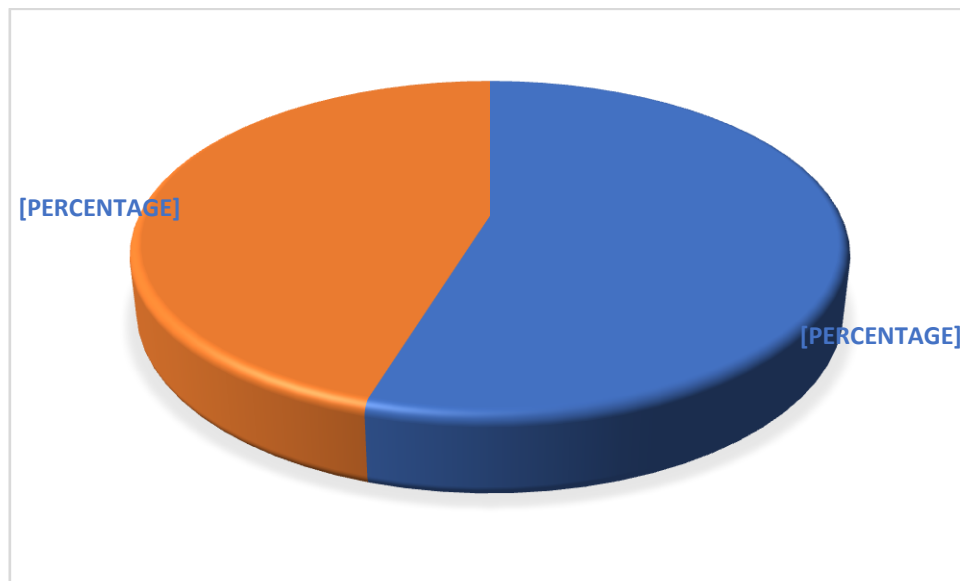
The findings showed that 75.2%(231) of the respondents affirmed that demonstration room instructors are sometimes available while 24.8% (77) stated that they are seldom available. (Figure 4).



*Figure 4:Availability of demonstration room instructors*

**Availability of clinical preceptors or supervisors**

More than half of the respondents, 55% (169) stated that clinical preceptors/supervisors are seldom available as shown in Figure 5.



*Figure 5:Availability of clinical preceptors or supervisors*

**Availability of counselors**

Availability of supervisors was also investigated as shown in Figure 6. The findings established that 31.9% (98) stated that they are sometimes available, 29.6% (91) said that they are seldom available while 28% (86) affirmed that they are always available.

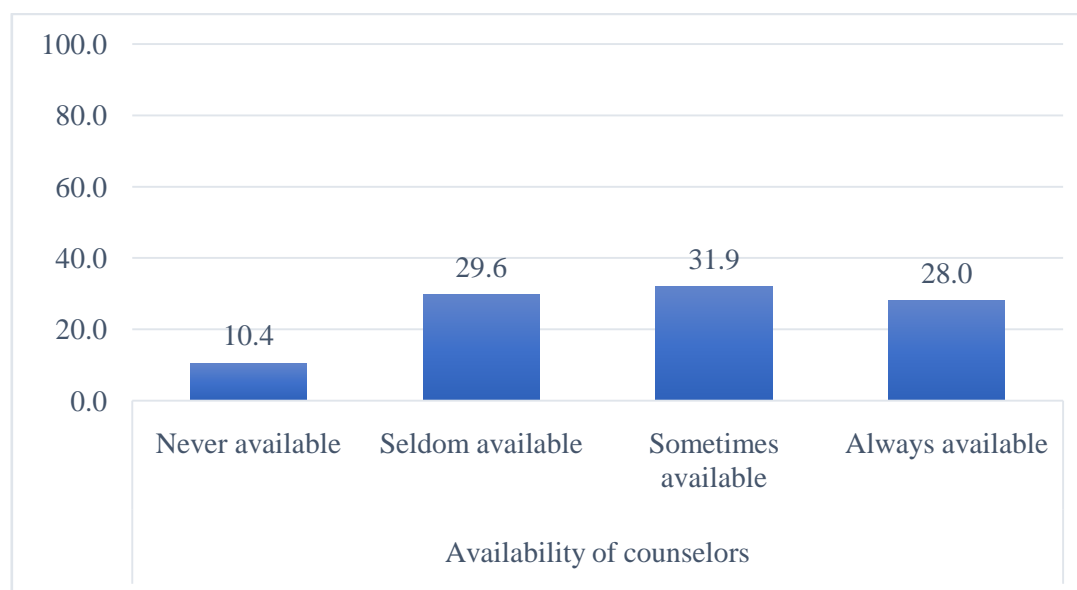


Figure 6: Availability of counselors

**Teaching/ learning methods used by the instructors/lecturers in the midwifery classroom/clinical area that facilitate critical thinking**

The respondents were asked about the teaching/learning methods used by the instructors as shown in Table 4. The commonly used methods included lectures 90.2% (277), lectures with discussion, 89.6% (275) and groupwork, 85.3% (262).

Table 4: Teaching/ learning methods used by the instructors/lecturers in the midwifery classroom/clinical area that facilitate critical thinking

Teaching/learning methods	Never	Rarely	Always
Lectures with discussion	0	32(10.4)	275(89.6)
Lectures	0	30(9.8)	277(90.2)
Demonstrations and return demonstrations	0	12(3.9)	144(46.9)
Discussions	0	55(17.9)	252(82.1)
Reflection	71(23.1)	161(52.4)	75(24.4)
Roleplays	100(32.6)	156(50.8)	51(16.6)
Videos	57(18.6)	202(65.8)	48(15.6)
Groupwork	0	45(14.7)	262(85.3)
Case presentation	14(4.6)	68(22.1)	225(73.3)
Problem Based Learning	17(5.5)	64(20.8)	226(73.6)

**Association between learning materials and competency among students on clinical practice**

The findings established that lectures with discussion (OR =5.0, 95%CI:2.57 – 9.98, p<0.001), discussions (OR =1.87, 95%CI:1.02 – 3.41, p=0.042), group work (OR =7.47, 95%CI: 3.86 -14.45, p<0.001) and problem-based learning (OR =3.89, 95%CI:1.98 -5.80), p<0.001) were significantly associated with increased likelihood of having adequate competency as shown in Table 5.

Table 5: Association between learning materials and competency among students on clinical practice

	Adequate	Inadequate	OR(95%CI)	P-value
Lectures with discussion				
Always	198(92.5)	66(71)	5.0(2.57 – 9.98)	<0.001
Rarely	16(7.5)	27(29)	Ref	
Lectures				
Always	196(91.6)	81(87.1)	1.61(0.74 – 3.5)	0.314
Rarely	18(8.4)	12(12.9)	Ref	
Demonstrations and return demonstrations				

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Always	98(45.8)	53(57)	1.57(0.96 -2.56)	0.082
Rarely	116(54.2)	40(43)	Ref	
<b>Discussions</b>				
Always	182(85)	70(75.3)	1.87(1.02 - 3.41)	0.042
Rarely	32(15)	23(24.7)	Ref	
<b>Reflection</b>				
Always	50(23.4)	25(26.9)	1.21(0.69 - 2.11)	0.564
Rarely	164(76.6)	68(73.1)	Ref	
<b>Roleplays</b>				
Always	34(15.9)	17(18.3)	1.18(0.62 - 2.25)	0.619
Rarely	180(84.1)	76(81.7)	Ref	
<b>Videos</b>				
Always	28(13.1)	20(21.5)	1.82 0.97 - 3.43)	0.086
Rarely	186(86.9)	73(78.5)	Ref	
<b>Groupwork</b>				
Always	198(92.5)	58(62.4)	7.47(3.86 - 14.45)	<0.001
Rarely	16(7.5)	35(37.6)	Ref	
<b>Case presentation</b>				
Always	153(71.5)	72(77.4)	1.37(0.77 - 2.42)	0.327
Rarely	61(28.5)	21(22.6)	Ref	
<b>Problem Based Learning</b>				
Always	175(81.8)	53(57)	3.89(1.98 - 5.80)	<0.001
Rarely	39(18.2)	40(43)	Ref	

**Most effective teaching/learning methods that facilitate and support learning and identification of causes of maternal mortality in the clinical midwifery placement**

Most effective learning methods were investigated as shown in Figure 7. The respondents stated that groupwork, 72% (221), lectures with discussion, 70.7% (217), case presentation 64.2% (197) and discussions were considered the most effective among the respondents in facilitating and supporting learning as well as identification of causes of maternal mortality in clinical midwifery.

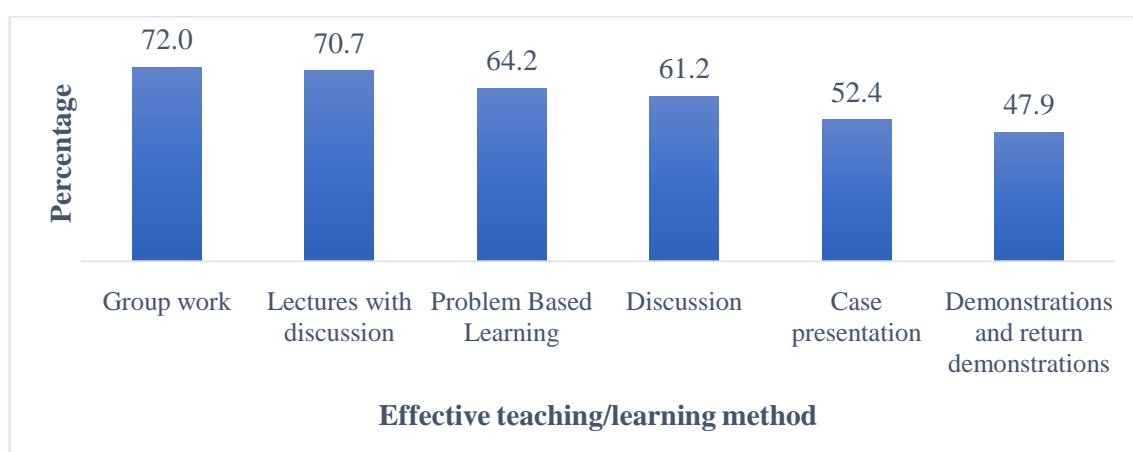


Figure 7: Most effective learning/teaching methods

**The quality of the clinical skills of classroom and clinical instructors in ensuring midwifery content is applied in the clinical area**

The respondents were asked to rate the quality of clinical skills of classroom and clinical instructors in ensuring that midwifery content is applied in the clinical area as shown in Figure 8. The findings revealed that 8.8% (27) rated the classroom/instructors as needing improvement, 46.9% (144) rated demonstration room



instructors as needing improvement while 30% (92) stated that clinical preceptors or supervisors as in need of improvement.

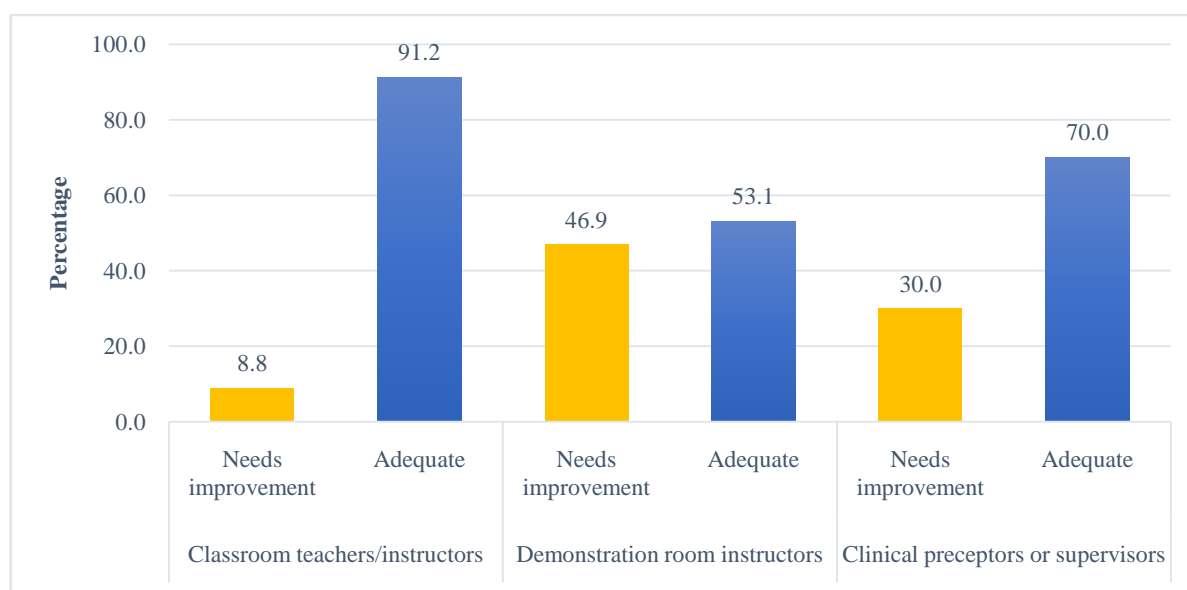


Figure 8: The quality of the clinical skills of classroom and clinical instructors

### Health facility factors that describe readiness for provision of antenatal and postnatal care

#### Quality of clinical practice facilities

The readiness for provision of antenatal and postnatal care was also assessed as shown in Table 5. The findings showed that the major areas in need of improvement as stated by respondents were availability of medical equipment and materials 53.7% (165), transportation to and from facilities 37.5% (115), quality of supervision at clinical practice facilities 33.2% (102) and alignment between classroom teaching and clinical training 33.6% (103).

Table 5: Quality of clinical practice facilities

Quality of clinical practice facilities	Good	Needs improvement
Variety of clinical practice facilities used (e.g., community clinics, district hospitals, reference hospitals)	227(73.9)	80(26.1)
Distance to practice facilities	220(71.7)	87(28.3)
Transportation to and from facilities	192(62.5)	115(37.5)
Variety of patients at practice facilities	263(85.7)	44(14.3)
Safety and security at clinical sites	257(83.7)	50(16.3)
Quality of supervision at clinical practice facilities	205(66.8)	102(33.2)
Quality of teaching at practice sites	207(67.4)	100(32.6)
Quality of student assessment	234(76.2)	73(23.8)
Alignment between classroom teaching and clinical training	204(66.4)	103(33.6)
Availability of medical equipment and materials	142(46.3)	165(53.7)

#### 4.6.3. Sufficient registered nurses/midwives are available to facilitate and support

The findings showed that registered nurses/midwives were highly committed to orientation to the placement setting in the first week 96.7%(297), ensuring that the learner is accepted, encouraged to ask questions in contributing to patient care 95.4%(293), Registered nurses/midwives work effectively within the interdisciplinary team, providing a friendly and supportive working atmosphere in which I am able to learn 94.5%(290) and ensuring student learning 88.9%(273) as shown in Table 6.

*Table 6: Sufficient registered nurses/midwives are available to facilitate and support*

	Yes	No
Student learning	273(88.9)	34(11.1)
I was orientated to the placement setting in my first week	297(96.7)	10(3.3)
I was familiarized with relevant emergency procedures	262(85.3)	45(14.7)
I have access to written information about the placement and its philosophy of care or mission statement	263(85.7)	44(14.3)
Copies of relevant information relating to the BScN/midwifery content programme are available in the practice area to preceptors and students	249(81.1)	58(18.9)
I have access to, and adhere to the current practice placement documents (e.g. Disciplinary Code, Practice Placement Guidelines, Practice Placement Agreement)	269(87.6)	38(12.4)
Policies are in place to address complaints/concerns of students	251(81.8)	56(18.2)
Registered nurses/midwives work effectively within the interdisciplinary team, providing a friendly and supportive working atmosphere in which I am able to learn	290(94.5)	17(5.5)
I am accepted as a learner, encouraged to ask questions in contributing to patient/client care	293(95.4)	14(4.6)
Members of the multidisciplinary team contribute to my learning experience	278(90.6)	29(9.4)
Relevant text books/journals/articles/IT resources/library are available	253(82.4)	54(17.6)
A study area is available to me in the practice placement area	151(49.2)	156(50.8)
Interviews with my preceptor were conducted in a quiet, private area	164(53.4)	143(46.6)

**Processes of learning are in place to support, supervise and develop the student’s skills, attitudes and knowledge**

The processes that have been put in place to support, supervise and develop student’s skills attitude and knowledge as investigated as shown in Table 7. The less utilized processes across the placement area included receiving written feedback from preceptor 54.4% (167), evaluation of clinical learning opportunities 68.7% (11) and reflective practice facilitation during placement 71.7% (220).

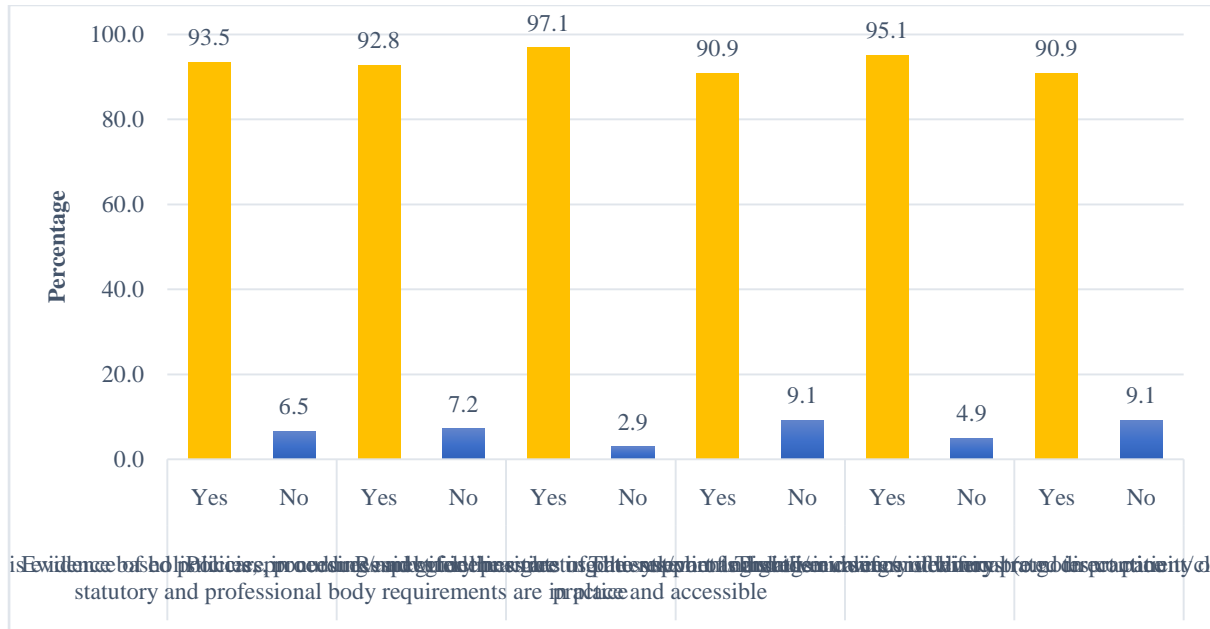
*Table 7: Processes of learning are in place to support, supervise and develop the student’s skills, attitudes and knowledge*

	Yes	No
I am allocated a named preceptor who is responsible for coordinating and supervising my learning	234(76.2)	73(23.8)
The preceptor and I have agreed a plan of learning to facilitate the achievement of learning outcomes/competencies	239(77.9)	68(22.1)
I have the opportunity to work alongside my preceptor(s)	237(77.2)	70(22.8)
I receive written feedback from my preceptor	167(54.4)	140(45.6)
Registered nurses/midwives use a variety of methods to provide me with opportunities to achieve my learning outcomes/competencies	256(83.4)	51(16.6)
Protected reflective time for rostered students is facilitated (if allocated to the area)	217(70.7)	90(29.3)
Reflective practice is facilitated during my placement	220(71.7)	87(28.3)
The preceptor and I evaluate my clinical learning opportunities	211(68.7)	96(31.3)
Throughout the placement Clinical Placement Coordinators (CPCs)/Clinical Development Coordinators	203(66.1)	104(33.9)
The clinical placement area has contact details for the link lecturer who provides support to students and preceptor(s) in the clinical learning environment?	253(82.4)	54(17.6)

**Evidence of high-quality nursing/midwifery practice that enhances innovative learning in midwifery among the BSN student.**

Majority of the respondents agreed that there is evidence of high-quality nursing/midwifery practice that enhances innovative learning in midwifery. The practices that were highly rated include evidence of policies,

procedures and guidelines are used to support and guide nursing/midwifery practice 97.1%(298), evidence that the system of nursing/midwifery delivery promotes continuity of care 95.1%(292), there is evidence of holistic care in nursing/midwifery practice 93.5%(287) and that there is evidence based policies, procedures and guidelines meeting the relevant legislative statutory and professional body requirements are in place and accessible 92.8%(285) as shown in Figure 9.



*Figure 9: Evidence of high-quality nursing/midwifery practice*

**Observation on the curriculum**

The findings established that majority of the respondents 99% (304) stated that equipment’s/supplies/infrastructure were absent in the curriculum, 16.9% (52) of the respondents stated that reproductive Health report manuals were absent in the curriculum, 15% (46) stated that policies/services/audit reports are unavailable in the curriculum as showed in Table 8.

*Table 8: Observation on the curriculum*

	Available	Absent
CE	273(88.9)	34(11.1)
Availability of accredited curriculum/reviewed	288(93.8)	19(6.2)
Reproductive Health report manuals.	255(83.1)	52(16.9)
Policies/services/audit reports	261(85)	46(15)
National Obstetric Manual/MOH guidelines/maternal and new born care practice.	289(94.1)	18(5.9)
Procedure manuals	290(94.5)	17(5.5)
Equipment’s/supplies/infrastructure.	3(1.0)	304(99)
Decision makers/program administrators	269(87.6)	38(12.4)
Knowledgeable persons of the program	289(94.1)	18(5.9)

**Qualitative analysis of the findings on readiness to provide pre and postnatal care**

Qualitative analysis was conducted from the focus group discussions conducted among nursing managers, instructors/ mentors from the midwifery departments. Interview will be conducted from prenatal clinic and postnatal departments of KNH and MTRH. In investigating the readiness of clinical facilities two major subthemes was identified. These include adequate and inadequate. The participants had mixed where some of the participants felt that he clinical facilities had adequate physical as well as human resource in readiness for pre and postnatal care.

### **Adequate**

Some of the respondents identified that the facilities had adequate physical and human resource in readiness for prenatal and postnatal care.

*“The human resource is adequate, there is readiness and promptness in antenatal and postnatal care. There could be inadequate communication coordination among various departments.”* FGD13.

They are fairly adequate since at times the bed capacity and staff-patient ratio may be wanting.

*“We have competent midwives and doctors who are available at all times. We have consultants on call 24/7. We also have an ICU with a 4-bed capacity for mothers that come in very sick and it is manned by a specialised team.”* FGD15.

### **Inadequate**

Some of the participants stated that the facilities and human resources in the clinical settings were not ready to provide prenatal and postnatal care. majority of them stated that the major challenge is human resource which present a major gap in delivery of quality care:

*“No, the facility should increase human resources.”* FGD 12

*“ We face challenges due to shortages of staff, affecting close mentorship with the students. We also have too many students from other colleges.”* FGD21.

*“Limited human resources but enough physical facilities. This makes it difficult to deliver skills to the learners. they should be given proper orientation on how to use the physical facilities.”* FGD22.

## **IV. DISCUSSION**

The findings from current study showed that majority of the respondents (79.5 percent) had tutoring services in their placement areas, 76.9 percent had student counselling. Thus, presence of student counselling, student health services, tutoring services and peer support group were significantly associated with individual competency. Students who had student counselling in their clinical placement areas were five times were more likely to be competent. These findings are comparable to Ericsson et al. (2007) who stated that students who had active engagement and support through services such as counselling streamlined their commitment to improved competency and clinical practice. Presence of student health services was associated with increased competency among respondents. Student health services offer a strong emphasis on commitment among students because their health needs are taken care of and improve clinical practice. Kauchak and Eggen (2003) affirmed that the learning environment must be comfortable and stimulating places for learning to take place. The health of care providers should be always considered to improve efficiency. Students on placement are learning while they provide care hence it is crucial to protect them through establishment of programs such as student health services. A student midwife must be able to put into practice what she has learned in theory, to apply the knowledge obtained in the classroom to exercise educated judgement and make skilled observations throughout the giving of patient care. This correlation of theory and practice and the building of meaningful experience must take place in the field of clinical practice under supervision by qualified personnel. A study conducted in Zambia revealed that concerning learning environment, most respondents (61%) described the learning environment as being poor (Bweupe et al., 2018). This is because the environment did not exhibit key supportive practices to midwifery students on placement limiting their skill acquisition.

Perception of respondents in the present study were assessed regarding aspects of clinical practice in placement facilities, 11.7 percent of the respondents held that the number of hours spent at the clinical practice is not enough. This sentiment was echoed by most of the instructors in interview conducted where they affirmed that limited number of hours in clinical practice impact their competency. Similarly, our study established that almost half of the respondents, 44.6 percent did not have enough opportunities to practice under supervision. The interaction within care environment between students and preceptors improve the level of competency since it improves on efficiency through demonstration and tutoring. Wells and McLaughlin (2014) also affirmed that enough supervision improve the level of commitment among student’s clinical placement. Their study also stated that majority of BScN learners are struggling in real patient care. This is attributed to inadequate supervision. Further, presence of qualified preceptors to train and tutor clinical placement BScN learners is a major challenge. In our study, 45 percent of the respondents stated that there are no enough qualified midwives, 55.7 percent asserted that there no enough obstetricians and 44.3 percent in their areas of practice. This could be due to the high ratio of supervisors to learners making it difficult for the appointed supervisors to manage all learners. Having a good number of trained Clinical Preceptors and Registered Midwives in a clinical site promote good and effective training of students. Shortage of staff in most of the clinical sites and increased population of students has contributed to limited supervision as per guidelines. These findings compare with other studies (Nielsen et al., 2013, Reid and Catchpole, 2011; Saiafnet et al., 2015). According to Saifanet et al. (2015) students asserted that lack of qualifications of the clinical instructors formed a major influence on the increasing the gap between theory and practice. Further, Bvumbwe and Mtshali, (2018) also stated that the gap

between theory and application in clinical area can be bridged by sharing expertise. There was also complexity in clinical learning environment and theoretical environment which was dictated by real application of theory. These findings also compare with those from a study conducted in Zambia which established that majority of clinical supervisors were not trained in clinical supervision which meant that they were unsure of what to expect from the learners. Majority of the respondents (63%) exhibited inadequate supervision skills (Bweupe et al., 2018).

The current findings established that 71% of the respondents asserted having enough clinical supervisors. These findings are comparable to a mixed methods study conducted in Malawi which revealed that 72% of the BSc nursing students received clinical supervision (Kaphagawani & Useh, 2018). Similarly, another study in Malawi identified that most of the learners were not satisfied with clinical supervision and support during clinical learning (Kamphinda & Chilemba, 2019). Clinical supervision limits the degree of error among learners. Midwifery students who are not supervised are at increased risk of causing adverse complication among patients. Expectant women are vulnerable hence there is need to ensure effective and supervised care is delivered especially when care providers are students on clinical practice. A review conducted by Stolic et al. (2022) revealed that the prevalence of medication errors by students on clinical practice was 6.1% with main causes being student and level of education.

In the current study, it was established that commonly applied teaching/learning methods included 90.2 percent, 89.6 percent used lectures with discussion, 85.3 percent used group work while 46.9 percent always used demonstrations and return demonstrations. Demonstrations and return demonstrations are fundamental in midwifery while less than half of the respondents asserted that they were being used always. However, in a study conducted in Lusaka, Zambia, most instructors (66%) used group sessions as a mode of supervision of students. Group sessions were preferred because of the large numbers of students being enrolled in the programs. Although one to one method supervision is the most effective method this may not be feasible due to shortage of clinical supervisors. The most common method of meeting clinical learning needs of students as reported by the respondents was demonstration of midwifery procedure before practice (32%). Demonstration of procedures before practice was the most common method of meeting students' clinical needs because they believed when a student observed something they were likely to remember (Bweupe et al., 2018). However, the emphasis on learning on clinical setting should be mixed approaches which significantly improve the level of competency among learners.

## **V. Conclusion And Recommendation**

These findings have revealed that clinical placement settings have not employed effective policies and programs that focus on the needs and wellbeing of all students in clinical placement. Learners on clinical placement are still learning and their competency especially in applying theory to practice needs to be supervised. Further, there are no/few preceptors who are qualified to offer supervision on learners on clinical placement which create a major gap in skill acquisition among learners in their practice. There is need to develop a more enhanced assessment tool which can help integrate quality assessment and improved integration of theory to practice.

### **Conflict of interest**

There was no conflict of interest in this study.

## **REFERENCES**

- [1]. Bweupe, N., Ngoma, C. M., & Sianchapa, B. (2018). Clinical Supervision of Midwifery Students at the University Teaching Hospital School of Nursing and Midwifery in Lusaka, Zambia. *Open Journal of Nursing*. <https://doi.org/10.4236/ojn.2018.86030>
- [2]. Kamphinda, S., & Chilemba, E. B. (2019). Clinical supervision and support: Perspectives of undergraduate nursing students on their clinical learning environment in Malawi. *Curationis*. <https://doi.org/10.4102/curationis.v42i1.1812>
- [3]. Kaphagawani, N. C., & Useh, U. (2018). Clinical supervision and support: Exploring pre-registration nursing students' clinical practice in Malawi. *Annals of Global Health*. <https://doi.org/10.29024/aogh.16>
- [4]. Stolic, S., Ng, L., Southern, J., & Sheridan, G. (2022). Medication errors by nursing students on clinical practice: An integrative review. In *Nurse Education Today*. <https://doi.org/10.1016/j.nedt.2022.105325>