Institutional Factors Influencing Student Performance in Management of Second Stage of Labour in Kakamega County Hospitals, Kenya

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Received July 20, 2024, accepted September 23, 2024, Published January 1, 2025.

ABSTRACT

Context: The second stage of labour is a critical phase of childbirth, during which the mother is required to push the baby through the birth canal. Institutions have a key role in supporting student learning. Institutional factors encompass all factors that affect the performance of nursing students both at the training institution and at the clinical site. Information derived from data will be used to decide how to improve clinical learning in labour wards.

Aim: The study's precise goal was to assess institutional factors influencing student performance in managing the second stage of labour in Kakamega County hospitals, Kenya.

Methods: The study employed an analytical cross-sectional research design using a quantitative data collection approach. The study area was limited to labour wards of hospitals in Kakamega County that receive student nurses for clinical placement. The study population comprised 175 nursing students. Systematic sampling was used to select study participants. Data collection included interviewer-administered questionnaires and a student performance observation checklist to assess the student performance in managing the second stage of labor. Quantitative data analysis techniques included descriptive and inferential statistics.

Results: Multiple regression was applied for inferential statistics, with a p-value of ≤0.05 considered statistically significant. Students in placement sites who reported having an easy time working with patients were 2.5 more likely to have had outstanding performance (OR: 2.5; 95% CI: 1.0–6.0; p=0.04), the association being statistically significant. Equally, those in placement sites with equipment in good condition were 2.3 times more likely to have reported outstanding performance (OR: 2.3; 95% CI: 1.1–4.7; p=0.02). In the same way, students who agreed that they could use the equipment with ease revealed statistically significant results compared to those who disagreed (OR: 2.3; 95% CI: 1.1–4.9; p=0.03). On support and guidance, students who agreed that they were guided by qualified staff when performing practical procedures were likely to have done better (OR: 0.4; 95% CI: 0.1–0.9; p=0.02).

Conclusion: Institutional factors play a bigger role in successful student performance, particularly time spent working with patients, an equipped placement site, the ability to easily use equipment, and guidance by qualified staff. The study recommends training institutions and placement sites to provide adequate resources, including staff and clinical instructors.

Keywords: Institutional factors, labour, second stage, student performance

Citation: *Lipesa, G. W., Okath, J. M., & Ochanda, D. A. (2025).* Institutional factors influencing student performance in management of second stage of labour in Kakamega County Hospitals, Kenya. *Evidence-Based Nursing Research*, *7*(2), 12-21. http://doi.org/10.47104/ebnrojs3.v7i2.382

1. Introduction

Globally, there is a shortage of competent midwives, and the number is projected to decrease further by 2030. New graduate midwives with less competence have been employed to curb the shortage. Reducing maternal mortality is a priority in the third goal of the 2030 sustainable development goals. Nurse training combines theory and practical learning experiences, enabling the learner to acquire knowledge, skills, and attitudes to improve performance *(Abdulrahman, 2023)*.

Institutions have a key role in supporting student learning. Institutional factors encompass all factors that affect the performance of nursing students both at the training institution and at the clinical site. Without good student performance, no achievement will be noted for both the teacher and the training institution *(Nurdiana et al., 2023)*.

Based on many literature surveys, factors range from environmental, economic, social, and psychological. Clinical skills laboratories are very important for students to learn clinical skills and polish their performance *(Ulhaq et al., 2023)*. A study by *Houghton et al. (2013)* in Ireland on nursing students found that skills laboratories are important to provide a clear pathway to clinical practice. Students can use the skills laboratory in class, before they go to the clinical area, when in the clinical area, and even during their free time. Clinical skills laboratories allow students to learn and

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practice their clinical skills, improving clinical performance *(Fadana & Vember, 2021).*

Learning equipment is key in the clinical education of nursing students. Students should be given enough effective learning equipment to help them achieve the expected learning outcomes in the clinical area. The equipment assists the student nurse in translating whatever has been learned in theory into real-life experience. Some training institutions create unfavorable learning experiences due to insufficient equipment *(Gause et al., 2022). Tettey (2020)* found that while some training colleges in the Ashanti region of Ghana had adequate teaching equipment, many faced challenges such as outdated equipment and lack of maintenance and recommended regular maintenance to ensure quality learning. *Msokwa (2023)* in Malawi identified a shortage of teaching equipment in the clinical areas that hindered effective skills training for students. Inadequate equipment in the skills lab may encourage students to use 'shortcuts' during procedures because they were not exposed to those procedures before going to the clinical area or may not have had enough practice *(Jamshidi et al., 2016).*

Students require enough time in the clinical area to practice clinical procedures. Sometimes, the time the student is exposed to patients may not be enough for that student to acquire enough clinical practice *(Amoo et al., 2022). Adjei et al. (2018)* found that the limited length of clinical attachment interferes with learning opportunities. Students may experience competition with students from other institutions, hence scrambling for patients, leading to less exposure and eventually hampering learning *(Ulenaers et al., 2021).*

In their study in Kenya, *Serah (2020)* concluded that a longer duration of clinical attachment allows students to develop a deeper understanding of clinical practice, enhance their clinical skills, and improve their confidence in patient care. *Negm (2024)* found that student nurses could not practice clinical procedures because of limited clinical time during clinical attachment. Short clinical attachment limits the opportunity for the student to have enough exposure to practice with patients.

A placement site is an area where nursing students go for clinical practice. Since nursing is a performance-based profession, clinical learning environments play an important role in acquiring professional abilities and training nursing students to enter the nursing profession and become registered nurses *(Jamshidi et al., 2016).*

Berhe and Gebretensaye (2021) emphasized the key role clinical instructors play in students' performance at the placement site. *Chen et al. (2023)* noted that the support students receive from clinical instructors enables them to meet the demands of an ever-changing clinical environment.

Additionally, *Jack et al. (2017)* identified that qualified nurses act as role models, and students imitate most of what they see them do when handling patients in the clinical area, thus having a greater influence on how the students behave in the future. The institution policy should allow students to practice on patients because clinical practice on patients prepares nursing students for the professional role *(Susmarini et al., 2022).*

Practicing on patients improves the quality of clinical experience, resulting in competency. Patients provide an opportunity for students to practice clinical skills. Practicing on patients allows nursing students to learn how to apply theory learned in class in a clinical setting *(McHugh & Lake, 2010).* In examining clinical practice in Sweden, *Lofmark et al. (2012)* identified a lack of opportunity for nursing students to practice on patients in the clinical areas as a problem that affects the conversion of theory to practice. *Kim et al. (2021)* in Korea explored how limited chances to practice on patients during clinical placements negatively affect students' learning preparedness for professional practice.

Pop et al. (2022) addressed the importance of supervision in guiding and mentoring student nurses during clinical placements, increasing student competency. Monitoring students' clinical performance, understanding their perception of skills and abilities, and encouraging them are essential to identifying their educational needs and ways to help them professionally.

Abdel Rahiem et al. (2020) concluded that while clinical supervision practices in Kenya have strengths, there are areas for improvement, such as standardized supervision guidelines, increased mentorship opportunities, and better integration of theoretical knowledge with clinical practice. If well organized, mentorship is an important aspect of clinical learning *(Hagrass et al., 2023). Wang et al. (2024)* noted that students consider mentorship the most important factor in clinical performance.

Brown et al. (2020) noted that positive staff-student relationships, particularly supportive and respectful mentorship, are crucial for fostering a sense of belongingness among nursing students and enhancing their learning experience. *Kilcullen (2007)* found that nursing students who had more contact with their mentors during clinical practice showed a significantly higher level of clinical competence and learning satisfaction than those with less contact. *Alshahrani et al. (2018)* stated that clinical objectives contribute to students' confidence levels and ability to achieve learning outcomes during clinical placements.

In a study on nursing and midwifery students' experiences and perception of their clinical learning environment in Malawi by *Mbakaya et al. (2020),* the students identified a lack of clearly stated expectations of what was expected of them in the clinical learning environment as one of the major challenges they face during their clinical practice, hence affecting their performance.

2. Significance of the study

Several nursing training institutions place their students for clinical attachment at the maternity unit (labour ward) of Kakamega County Hospitals. In the labor ward, the students are supervised by clinical instructors, nurse managers, qualified nurses, and other medical team members. A public concern is how students are prepared to conduct nursing procedures competently when they qualify *(Morrell-Scott, 2023).*

According to the Nursing Council of Kenya (NCK) syllabus 2019, student nurses are expected to perform twenty-eight (28) normal and three (3) abnormal deliveries before being allowed to qualify for the NCK record of practical instruction and clinical experience-2019, they are also supposed to undergo mastery skills assessment in the second stage of labour as well as mandatory management of mother in labour to measure their level of competence.

Reports from assessors after the second stage of labour assessment have indicated a gap between the objective expectation of student nurses' performance during the second stage of labour and the reality at the placement site *(Mchidi, 2016).*

Students' performance in mastery skills assessments for managing a mother in the second stage of labour has also been low. Statistics obtained from the labor ward students' assessment register indicate that out of a pass mark of 70%, only 41% of the students managed to display the expected competence during the last five (5) consecutive assessments *(Croke et al., 2022).*

In Kenya, studies on student nurses' performance in the clinical area have only focused on general performance in clinical practices *(Serah et al., 2020).* Studies on student nurses' performance in the second stage of labour management have yet to be documented. This study, therefore, sought to assess nursing students' performance in managing the second stage of labour at the maternity units of Kakamega County hospitals.

The study will provide greater insight into factors that facilitate the development of an effective clinical teaching strategy. The hospital and relevant colleges will use the study findings to enhance their strengths and improve on their weaknesses regarding clinical experience for nursing students. Information derived from data will be used to make decisions on action to improve clinical learning in the labour ward. The study's results may shed some light on the problems experienced by nursing students during their clinical placement in the labour ward. The study's results will be used to improve clinical performance by providing information to relevant institutions about the challenges students face at the clinical site.

3. Aim of the study

This study aims to assess institutional factors influencing student performance in managing the second stage of labour in Kakamega County Hospitals Kenya.

4. Subjects & Methods

4.1. Research Design

A cross-sectional analytic study design was used in this study. In a cross-sectional study, the investigator measures the outcome and the study participants' exposures simultaneously *(Setia, 2016).*

4.2. Study setting

Pre-service nursing students from Kakamega, Kapenguria, Fafa, Kaptumo, and Webuye Medical training colleges on labour ward attachment at the maternity unit of Kakamega County hospitals. The hospitals were chosen because they accept nursing students for placement in their labour wards and are high-volume facilities.

4.3. Subjects

A total of 175 students were recruited. The number of students in these facilities is 97 per four-week placement, namely Malava 30 students, Butere 27 students, and Kakamega County General Hospital (KCGH) 40 students.

A systematic sampling technique was utilized in this study. This sampling method is where every K^{th} case in the population frame is selected for inclusion in the sample, e.g., every 3^{rd}. A student on a student roster placed in selected health facilities from the identified institutions was sampled. The student's attachment duty rosta was applied in sampling the students who participated in the study. Student nurses selected had been exposed to the clinical learning environment before.

Table (1): Health facility sample distribution.

Health Facility	No. of students	Percentage
Butere	53	30.3
KCGH	76	43.4
Malava	46	26.3
Total	175	100

Sample size determination

According to *Mugenda and Mugenda (2003)*, the required sample size will be smaller if the population is less than 10,000. The final sample estimate (nf) was calculated as:

$$nf = n/(1+n)\ N$$

Where:

n=the desired sample size when the population is more than 10,000

N=the estimate of the population size

=384/(1+384)/320

=384/2.2

=175

4.4. Tools of data collection

The methods include questionnaires and personal interviews that are face-to-face or through the telephone.

4.4.1. Interviewer-Administered Questionnaire

A semi-structured questionnaire was developed to obtain data from the study participants. The data collection instrument was partitioned into two sections. The first segment consisted of four questions regarding sociodemographic data. The second section contained nine questions relevant to the institutional factors that could influence the student's learning in the management of the second stage of labour such as learning strategies, learning equipment, and length of clinical attachment

4.4.2. Student Performance Observation Checklist

The checklist records whether a particular characteristic is present or an action has been taken. This checklist provides a simple 'yes or no' judgment. The checklist is an important assessment tool for evaluating performance skills in nursing. A checklist with 34 items was used to evaluate students' performance, which was undertaken through observation as the students performed their assigned activities (Management of a mother in the second stage of labour).

Scoring system

For each item, the maximum score was two (2) for a satisfactory performance, one (1) for a partially completed task, or zero (0) for no performance at all. With a maximum score of 68 and a lowest score of zero, the scores were totaled. Following the conversion of the overall scores to

percentage scores, the scores were ranked according to the following ranges: ≥65% is competent and <65% is not competent. The model's fit was evaluated using the F value, and a p-value of less than 0.05 indicated the model's statistical significance.

4.5. Procedures

Ethical consideration: Masinde Muliro University of Science and Technology Directorate of Post Graduate Studies (Ref no. MMU/COR: 509099) Institutional Scientific and Ethical Review Committee (REF: MMU/COR; 403012 Vol6 (01). The researcher obtained a permit from the National Commission for Science Technology and Innovation (NACOSTI) REF NO. 493025. Permission was sought from the County Director of Medical Services Kakamega REF NO CGK/MOH/ME/VOL1/27. Only those willing to participate were engaged and no person was coerced to participate in the study. The study participants were informed of the freedom to withdraw from participation at any stage.

The instruments used to collect data were pretested for validity and modified as needed. The tool's reliability was ensured in this study by applying Cronbach's alpha to the questionnaire to measure internal consistency. An internal consistency of 0.7 or higher was considered acceptable. After refinement, the study's Cronbach alpha index for the questionnaire and checklist was 0.78. Before the real data collection period, study participants participated in pretests of the research instruments. The pretest results were analyzed to determine whether the tools were well-designed to meet the study objectives *(Findley et al., 2021).* The pilot study of the questions (excluded from the main sample), which involved gathering data on a small scale in the adjacent subcounty (Bungoma County Hospital Maternity Unit – Labor Ward), was used to assess the content validity.

Six research assistants with a diploma in nursing or higher were employed to gather data from the study participants. The study was conducted over three months, from September 21 to December 21, 2022, in Kakamega County hospitals' maternity unit labor wards.

4.6. Limitation of the study

A small sample size may make it difficult to determine if a particular outcome is a true finding and, in some cases, a type II error may occur about the total population of nursing students in the County. Possibility of response bias because during the interview, the students may share some of the contents of the questionnaire with others before officially accessing them.

4.7. Data analysis

Erroneous, irrelevant, or incomplete questionnaires were removed to clean up the data. Unique codes were assigned to identify the data. After cleaning and coding, data entry was completed, and statistical analysis was carried out using the Statistical Package for Social Sciences (SPSS), version 26 computer program. Quantitative data was examined using the proper descriptive and inferential statistical techniques. A total of 34 items was obtained by adding the scores under each sub-domain for inferential statistics analysis. Higher scores on the observation checklist indicated a higher degree of agreement with the statement by the respondent. The scores were totaled and converted to percentage points.

Multiple logistic regression was used to include all independent variables, comprising both interval and categorical predictors statistically significantly associated with the outcome. The degree of correlation between the independent and dependent variables was examined using the adjusted odds ratio (AOR), which accounts for confounding variables.

5. Results

Table 2 demonstrates the frequency and percentage distribution of students' sociodemographic characteristics. All 175 nursing students participated in the study, giving a response rate of 100%. In the current study, most students (72.0%) were aged between 21 and 23, most of whom were females (62.3%). Over three-quarters (88.6%) were single and second-years (58.3%).

Table 3 represents the association between institutional factors of learning strategies, learning equipment, and performance in the management of the second stage of labor. On learning strategies, significant association with performance was reported among those agreeing that they were given objectives at the beginning of the practical learning. The results reveal that they were three-fold more likely to have had outstanding performance (OR: 2.9; 95% CI: 1.4–5.9; p=0.003).

Although the remaining variables under this strategy were not statistically associated with the dependent variable, those who could practice more to attain a certain level of perfection were up to 1.7 times more likely to have had outstanding performance (p=0.13). Despite small numbers, students who agreed that there was enough equipment for performing the practical lessons were about seven times more likely to have done better in their performance (OR: 6.7; 95% CI: 1.2–37.8; p=0.03). Similarly, students who could easily use the equipment were 2.7 times more likely to perform outstanding than those who disagreed (OR: 2.7; 95% CI: 1.2–5.8; p=0.01).

Table 4 reveals the association between institutional length of clinical attachment, mentorship, and performance in the management of the second stage of labor. On the length of clinical attachment, none of the variables assessed had any statistically significant association with performance.

Concerning mentorship, even though not statistically significant, those who agreed that the mentor evaluates the performance and supervises the students' learning were up to 1.2 times more likely to have had outstanding performance (p=0.76). The same was true of those who reported that the mentor advised on improving the work done; their performance was 1.0 times more likely to have been outstanding than those who disagreed (p=0.96).

Table 5 represents the association between placement site practice on patients, learning equipment, support and guidance, and performance in the management of the second stage of labor. Notably, students in placement sites who reported having an easy time working with patients were 2.5 more likely to have had outstanding performance (OR: 2.5;

95% CI: 1.0–6.0; p=0.04), the association being statistically significant.

Equally, those in placement sites with equipment in good condition were 2.3 times more likely to have reported outstanding performance (OR: 2.3; 95% CI: 1.1-4.7; p=0.02). In the same way, students who agreed that they could use the equipment with ease revealed statistically significant results compared to those who disagreed (OR: 2.3; 95% CI: 1.1– 4.9; p=0.03).

On support and guidance, students who agreed that they were guided by qualified staff when performing practical procedures were likely to have done better (OR: 0.4; 95% CI: 0.1–0.9; p=0.02).

Table 6 shows the association between placement site learning environment, assignment of tasks, and performance in the management of the second stage of labor. On the association between the learning environment in the placement site and performance in the management of the second stage of labor, students who agreed that the environment was comfortable for practical learning were twice as likely to have had outstanding performance than their colleagues who disagreed (OR: 2.1; 95% CI: 1.1–4.3; p=0.03).

The association between having enough workspace to perform the intended procedures and outstanding performance revealed highly statistically significant results between those who agreed and those who did not agree. Those who agreed were five times more likely to have had outstanding performance (OR: 5.3; 95% CI: 2.2–12.9; p<0.0001). Neither of the two variables examined under the assignment of tasks yielded a statistically significant association with performance.

Table (2): Frequency and percentage distribution of students' sociodemographic characteristics (n=175).

Variables	N	%
Age group in years		
18–20	6	3.4
21–23	126	72.0
24–26	28	16.0
>26	15	8.6
Gender		
Male	66	37.7
Female	109	62.3
Marital Status		
Single	155	88.6
Married	20	11.4
Student Distribution by College		
Kakamega MTC	66	37.7
Kapenguria MTC	24	13.7
Webuye MTC	44	25.1
Kaptumo MTC	19	10.8
FAFA school of nursing	22	12.6
Year of Study		
2nd	102	58.3
3rd	73	41.7

Table (3): Association between institutional learning strategies, learning equipment, and performance in the management of the second stage of labor (n=175).

Variables	Categories	No.	Performance rating		OR	95% CI	P-value
			≥65 %	<65%			
Learning strategies							
Given objectives at the beginning of the practical learning	Agree	54	38.9	61.1	2.9	1.4–5.9	0.003
	Disagree	121	18.2	81.8			
Able to ask questions regarding the learning	Agree	127	22.8	77.2	0.7	0.3–1.5	0.38
	Disagree	48	29.2	70.8			
Have opportunities to work together to achieve a certain goal	Agree	63	30.2	69.8	1.6	0.8–3.2	0.20
	Disagree	112	21.4	78.6			
Able to practice more and more to attain a certain level of perfection	Agree	57	31.6	68.4	1.7	0.8–3.5	0.13
	Disagree	118	21.2	78.8			
Learning equipment							
There is enough equipment for performing the practical lessons	Agree	6	66.7	33.3	6.7	1.2–37.8	0.03
	Disagree	169	23.1	76.9			
The equipment is in good condition	Agree	38	26.3	73.7	1.1	0.5–2.6	0.78
	Disagree	137	24.1	75.9			
Equipment is enough/available	Agree	7	42.9	57.1	2.4	0.5–11.2	0.36
	Disagree	168	23.8	76.2			
The students can use the equipment with ease	Agree	37	40.5	59.5	2.7	1.2–5.8	0.01
	Disagree	138	20.3	79.7			

Table (4): Association between institutional length of clinical attachment, mentorship, and performance in the management of the second stage of labor (n=175).

Variable	Categories	No.	Performance rating		OR	95% CI	P-value
			≥65 %	<65%			
Length of clinical attachment							
Is the length of time for clinical attachment enough?	Yes	155	22.6	77.4	0.4	0.2–1.1	0.10
	No	20	40.0	60.0			
Training institutional factors affecting the length of clinical practice	Linking fee payment to going to the clinical area	63	23.8	76.2	0.9	0.4–1.9	0.86
	Other reasons	112	25.0	75.0			
Mentorship							
The mentor evaluates the performance and supervises the students' learning	Agree	148	25.0	75.0	1.2	0.4–3.1	0.76
	Disagree	27	22.2	77.8			
Mentor gives advice on how to better the work done	Agree	151	24.5	75.5	1.0	0.3–2.6	0.96
	Disagree	24	25.0	75.0			

Table (5): Association between placement site practice on patients, learning equipment, support and guidance, and performance in the management of the second stage of labor (n=175).

Variable	Categories	No.	Performance rating		OR	95% CI	P-value
			≥65 %	<65%			
Practice on patients							
Have an easy time working with patients	Yes	125	28.8	71.2	2.5	1.0–6.0	0.04
	No	50	14.0	86.0			
Frequency of working with patients	Often/Very often	154	24.0	76.0	0.79	0.3–2.2	0.65
	Rarely/Sometimes	21	28.6	71.4			
Learning equipment in the placement site							
The equipment is in good condition	Agree	63	34.9	65.1	2.3	1.1–4.7	0.02
	Disagree	112	18.7	81.3			
The students can use the equipment with ease	Agree	40	37.5	62.5	2.3	1.1–4.9	0.03
	Disagree	135	20.7	79.3			
Support and guidance							
Am guided by qualified staff when performing practical procedures	Agree	152	21.7	78.3	0.4	0.1–0.9	0.02
	Disagree	23	43.5	56.5			
The supervision is worthwhile; you get corrected when a mistake is made	Agree	125	24.0	76.0	0.9	0.4–1.9	0.78
	Disagree	50	26.0	74.0			
The supervisors are unfriendly, hence creating unease	Agree	15	33.3	66.7	1.6	0.5–5.0	0.53
	Disagree	160	23.7	76.3			
The staff is willing to answer questions asked by the students	Agree	90	23.3	76.7	0.9	0.4–1.7	0.70
	Disagree	85	25.9	74.1			

Table (6): Association between placement site, learning environment, assignment of tasks, and performance in the management of the second stage of labor (n=175).

Variable	Categories	No.	Performance rating		OR	95% CI	P value
			≥65 %	<65%			
Placement site learning environment							
The environment is comfortable for practical learning	Agree	69	33.3	66.7	2.1	1.1-4.3	0.03
	Disagree	106	18.9	81.1			
The environment has staff that assures a smooth learning	Agree	89	22.5	77.5	0.8	0.4–1.6	0.51
	Disagree	86	26.7	73.3			
There is enough workspace to perform the procedures intended	Agree	25	56.0	44.0	5.3	2.2-12.9	<0.0001
	Disagree	150	19.3	80.7			
Assignment of tasks							
Students are given the right assignments to perform according to the placement objectives	Agree	143	24.5	75.5	1.0	0.4–2.3	0.95
	Disagree	32	25.0	75.0			
There are challenges encountered when performing the assigned task	Yes	69	29.0	71.0	1.5	0.7–2.9	0.27
	No	106	21.7	78.3			

6. Discussion

Institutional factors affect nursing students' performance at the training institution and the clinical site. Without good student performance, no achievement will be noted for both the teacher and the training institution *(Nurdiana et al., 2023).* Based on many literature surveys, factors range from environmental to economic to social to psychological. So, this study was conducted to assess institutional factors influencing student performance in managing the second stage of labour in Kakamega County hospitals, Kenya.

The results show that those participants agreeing that they were given objectives at the beginning of practical

learning were three-fold more likely to have had outstanding performance. Also, those who agreed that there was enough equipment to perform the practical lesson were seven times more likely to have performed better. Additionally, the students who agreed that they could use the equipment easily were three times more likely to have performed better. This finding suggests that clarity in learning goals helps students focus on what they need to learn, improving their competency. Besides, it highlights the importance of adequate resources in enabling students to practice effectively, enhancing their skills and confidence. Additionally, this finding indicates that familiarity and ease of use with medical tools and equipment can contribute significantly to student success in practical skills.

This finding agrees with a study conducted by *Nakayoshi et al. (2021)*; they discovered that nursing students who received objectives had significantly higher scores than those who did not. Results also revealed that the majority of the participants disagreed that there was equipment at the clinical site. This finding agreed with a study by *Ghasemi et al. (2022)* in Isfahan, Iran that assessed the adequacy of equipment and found that some nursing programs had inadequate equipment and resources necessary for learning.

These results were also consistent with another survey done in Malaysia by *Yacob et al. (2020);* they stated that the students reported that the equipment used was generally adequate, but there was much concern about the condition of the equipment. As well as a survey done in Iran by *Toosi et al. (2021)* on the availability and the condition of equipment in student placement sites reported that the condition and availability of equipment were inadequate. Some students reported that they did not have access to enough equipment or the equipment was outdated or malfunctioning.

On the length of clinical attachment, none of the variables assessed had any statistically significant association with performance. This finding implies that simply having a longer or shorter clinical attachment period was not a key determinant of how well students performed. Other factors, such as quality of supervision, learning objectives, and resource availability, may play a more influential role. It might also indicate that these structural aspects of the clinical attachment are less influential on student outcomes than factors like equipment availability, practical objectives, and ease of equipment use, which were identified as significant in other parts of the study.

The results disagree with a survey of nursing students in the UK; 57% reported that the length of their clinical attachment was adequate for achieving the program's learning objectives *(Byrne et al., 2023).* A study conducted by *Nabizadeh et al. (2021)* in Australia found that the students who completed the clinical attachment reported higher levels of clinical competence. In their study in Tanzania, *González et al. (2021)* discovered that most students (84.4%) agreed that the length of clinical placement was enough and offered students adequate clinical practice opportunities. In addition, *Kim et al. (2021)* identified that short clinical attachment limits the chance for students to learn by having less exposure to the real world of work. Hence students not being able to develop their skills.

In regards to mentorship, the study reveals that those who agreed that the mentor evaluates their performance and supervises the students' learning were up to 1.2 times more likely to have had an outstanding performance and also that those who reported that mentors advise on how to better work done was one time more likely to have heard outstanding performance. The study's findings on mentorship suggest that certain aspects of mentor involvement positively impact student performance, though the effect size is relatively modest. This finding suggests that regular feedback and close supervision can positively influence student outcomes, though the improvement is not very large. While evaluation and supervision are helpful, they may need to be combined with other supportive measures to have a stronger impact.

These results agree with a study by *Lee and Chiang (2021)* in the Netherlands that found that students valued having a mentor who provided emotional support and facilitated their learning and professional development.

The study findings highlight that the students placed in sites where they found it easy to work with patients, had well-maintained equipment, and could easily use the equipment were significantly more likely to achieve outstanding performance. Additionally, those who received guidance from qualified staff during practical procedures also demonstrated better outcomes. These findings imply that a conducive learning environment—characterized by supportive patient interactions, good-quality equipment, and skilled mentorship—is crucial in fostering student success in clinical training.

These findings were similar to *Mang'uui et al. (2021),* who indicated a statistically significant relationship between teachers' professional support, professional development, physical facilities, teaching and learning resources, and leadership factors and pupils' performance on the national examination.

The findings suggest that a comfortable and well-equipped learning environment in placement sites significantly enhances student performance in managing the second stage of labor. Students who found the environment comfortable and had enough workspace for procedures were likelier to excel, highlighting the importance of a supportive and spacious setting for practical learning. However, task assignment did not significantly impact performance, indicating that environmental factors may be more influential than task allocation in this context. The findings indicate that environmental factors in clinical placement sites—such as comfort, adequate space, and access to necessary equipment—support student performance, particularly in managing the second stage of labor.

These findings were similar to *Mapulanga et al. (2024)*, who revealed that teaching and learning resources, hostile environment, poor relationships with qualified staff, absence of clinical supervisors, and lack of resources were some of the challenges faced by students in their clinical learning environment.

7. Conclusion

Institutional factors play a bigger role in successful student performance. Achievement of good performance

outcomes by nursing students during placement in the labour ward depends on sound placement attendance by students. Student's learning strategies and styles are factors that can improve performance in the management of the second stage of labour, including being given objectives at the beginning of the practical learning, practicing more and more with patients to attain a certain level of perfection as well as having enough equipment and supplies enhances student nurse performance.

Achievement of good performance by nursing students depends on support and guidance received from qualified staff. A good and comfortable environment at the placement site is a good predictor of better performance in the clinical area. Inadequate learning and faulty equipment at training institutions and placement sites emerged as key factors influencing performance in managing second-stage labour.

8. Recommendations

The study reveals that many students need to be given clinical objectives before leaving for the clinical area. Colleges should distribute and clarify clinical learning objectives to students before reporting to clinical placement. Hospitals and teaching institutions must establish master rotations with well-defined schedules and provide adequate time for clinical learning.

To improve student performance in clinical placements, hospitals and training institutions should prioritize creating comfortable and supportive learning environments with sufficient space, good lighting, and well-maintained equipment. Providing structured mentorship by qualified staff, who offer guidance and constructive feedback, is also essential. Emphasis should be placed on the quality of learning experiences rather than the quantity of tasks, allowing students to focus on skill development without excessive pressure. Regular training for mentors on effective supervision and continuous feedback collection from students can help ensure that the learning environment meets educational needs and fosters skill mastery.

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