

Factors Interfering with Nursing Students Performance Through Practical Training of Maternal and Newborn Health Course

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Abstract

Background: The competency of students performance requires the integration between learned theory as well as practice well through its attributes in clinical learning environment. **Aime:** was to evaluate the factors interfering with nursing students performance through practical training of maternal and newborn health. **Design** a descriptive design was adopted. **Sitting:** technical institution of nursing, suez canal university (2nd year). **Sample:** convenient sample included 458 nursing students studying maternal and neonatal health course was enrolled. **Tools:** **Tool I:** self administered questioner include questions about: socio demographic data and factors interfering with nursing students performance in lab and clinical practice sitting **Tool II:** An observational checklist for students' performance on four skills (abdominal examination, vaginal inspection, handling procedure, and perineal care). **Result:-** The bulk of the studied students (94.1%) reported that they didn't have enough time to performing a vaginal examination. Additionally, 79.9 and 82.1% of the students in the study demonstrate that there are not enough instructors to adequately train students. During the re-demonstration of the abdominal gripping skills, perineal care, handling, and vaginal exam, respectively, 46, 7, 46, 7, 47, and 60.5% of the studied students didn't communicate well with the trainer. **Conclusion:** One of the factors associated students' performance in the lab was an insufficient ratio of students to lab space. The clinical sitting also revealed that there weren't enough patients in relation to the number of students. **Recommendation:** suggested that, appeal technical nursing institutions direct to serves suitable lab area and recruit staff members to cover the gap.

Key words : Nursing students performance, clinical instructor, Clinical learning environment.

1.Introduction

Nursing students develop into competent professionals through their study and clinical practise experiences, which prepare them to offer quality health care and promote women's health. The adequacy and competency of nurses and midwives will help the government achieve its goal of improving health outcomes (Gemuhay, Kalolo et al. 2019; Hagqvist, Oikarainen et al. 2020).

One of the ongoing problems in clinical education is the gap between theoretical knowledge as taught in the classroom and what the students experience in clinical settings (Factor, Matienzo et al. 2017).

The behaviours of students in clinical practise, such as their inability to demonstrate knowledge and skills, attitude issues, unprofessional behaviour, poor communication skills with patients and clinical instructors, failing to ask questions, exhibiting both

overconfidence and a lack of confidence, and being unmotivated to learn or work, have a negative impact on their performance (Chunta and Custer 2018).

The students described their first clinical experience as being stressed due to their lack of prior clinical experience, strange surroundings, challenging patients, fear of making mistakes, and being evaluated by faculty members (Jamshidi, Molazem et al. 2016).

Nursing students' performance in the clinical setting is affected by the attitudes of clinical instructors. Positive attitudes and a supportive environment foster a learning students. Negative criticism is a barrier to effective clinical performance, whereas constructive criticism enhances practice in the clinical setting. Students' performance in clinical settings may be significantly impacted by the limited opportunity for hands-on experience in training facilities, a lack of

nursing tutors and clinical instructors, and an excessive number of students enrolled (Pinehas, Mulenga et al. 2017).

Clinical learning environments are crucial for the development of students' professional identities and competences. Clinical experiences that are thoughtfully planned and executed are crucial to ensuring that students have the assistance and educational opportunities they need to become competent and to acquire the knowledge, skills, and attitudes necessary for their future professional employment (Vizcaya-Moreno, Pérez-Cañaveras et al. 2018).

1.2. Significance of the study:

As a result, they are unable to deliver competent care. Evidence suggests that students in clinical learning environments frequently struggle to connect the theoretical material they have studied in the classroom with what they are really doing in practice. System inefficiency, a lack of financing, and a lack of resources are some of the issues that contribute to theory-practice gaps in clinical settings (Hashemiparast, Negarandeh et al. 2019)

Along with scientific knowledge and moral development, nursing skills form the basis of nursing competence, thus it is critical to consider all relevant factors as students learn and apply these skills. The competence of nursing students during their training and of graduating nurses as healthcare providers gives a clear picture about the quality of nursing education. Numerous research showed that factors in the lab and clinical areas contributed to poor nursing practise. (AE, AR et al. 2018, Fajar, Hussain et al. 2019).

2.3. The aim of the study :- to evaluate the factors interfering with nursing students performance through practical training of maternal and newborn health.

Research questions:

- 1- What are the factors interfering students performance in practical training at lab during studing maternal and newborn health course at a technical institute of nursing ?
- 2- What are the factors interfering students performance in practical training at clinical sitting during studing maternal and newborn

health course at a technical institute of nursing ?

- 3- Is there a relationship between the factors and performance among students during practical training of maternal and newborn health course at a technical institute of nursing ?

2.Subjects and Method

2.1. Study sitting: technical institution of nursing, suez canal university

2.2. Study design: a descriptive design was used in this study.

2.3. The sample of the study :- convenient sample included 458 nursing students studying maternal and newborn health course was enrolled in this study which recruited according the following formula.

2.6. Tools of data collection:

2.6.1.Tool (1): self-administered Questionnaire:

Z	Is the z score for a 95% confidence level	1.96
P	Is the population size	504
£	Is the margin of error	1.36
N	Is the population proportion	72.2% un satisfactory level of performance according to (RA, RAS et al. 2018)
N	Sample size	450

Developed by Reda (2017) adopted and modified by the researcher, it includes three parts:

Part 1: It included Socio-demographic characteristics such as age, and area of residenceet.

Part 2: It included factors interfering with practical training in the lab, it includes fourteen questions.

Part 3: It included factors interfering with practical training at clinical area it included ten questionnaires.

Tool (2): Tool II:- observational checklist:- used for evaluating students' performance in the **accredit check list for Technical Institute of Nursing Suez Canal University (2010)**. It used for assessing the performance of students during the procedure of vaginal exam., abdominal grips, prenil care and handling.

- 1- Assessment of students' performance of students during the re-demonstration of the abdominal examination procedure, it includes twenty-two steps.
- 2- Assessment of students' performance of students during the re-demonstration of vaginal examination procedure, it includes twenty-seven steps.
- 3-Assessment performance of students during the re-demonstration of handling procedure, it includes twenty-three steps.
- 4- Assessment performance of students during re-demonstration of perineal care. it includes twenty steps.

Scoring system:

Responses of students to this tool will include done scored 1 and not done scored 0. The item sum and divided into score of:

- Unsatisfied--< 60% of total practice score.
- Satisfied to some extent -----60-<75% of total practice scores.
- Satisfied -----≥75% of total practice score

(Rasha, et al., 2018)

6.4.2 Reliability of the Tool:

A jury of five experts in the field revised the instrument to ensure clarity, relevance, applicability, comprehensiveness, understanding, and simplicity of use. The changes were made in accordance with their suggestions. Cronbach's alpha was used to determine the dependability of the evaluation tools.

2.7. Field work:

Preparatory phase:

Reviewing the literature about the variables of study through available books, articles, magazines, and internet search to get acquainted with the research problem and to develop the study tool.

Pilot study:

A pilot study was conducted for 10% of the study sample to examine the clarity and time needed to complete the study tool. It was carried out for one month and cover (46) nursing students. Data collected from the pilot study was analyzed. The pilot study was excluded from the total study sample.

Implementation phase:

The actual was carried out over a period of four months, which started from 10/9/2019 to 10/12/2019. The researcher attended two days per week (Tuesday –Wednesday) at the Technical Institute of Nursing from 9.00 am to

1.00pm to collect all data from students. First the researcher was interviewed groups of student nurse 15 minutes starting with explaining the aim of the study and obtain oral consent for acceptance from them to participate in the study. The data collected by the researcher with the assistance of other colleagues.

A self-administered questionnaire was given to the students to assess the factors interfering practical training in the lab of the nursing institute S.C.U this step takes fifty minutes for students to complete questionnaire this step achieved by researcher and her colleagues. After describing every procedure and second questionnaire was given to the students to assess factors interfering practical training in clinical area.

In beginning academic year and starting to described skills in maternal and newborn health course and after beginning practical training in hospitals. Assessment of the student's performance level done during every procedure by observing students during the performance of skills and placing score in observational checklist (abdominal examination – perineal care-handling – vaginal examination).

2.8. Administrative design:

Before beginning the study, the Scientific Research, Ethical Committee, Faculty of Nursing, Suez Canal University gained investigator approval. The directors of the Technical Institute of Nursing and the management of Suez Canal hospitals received an official written consent letter from the Dean of Suez Canal Nursing Faculty outlining the study's goal.

2.9. Ethical considerations:

Before using the techniques to establish confidence and trust, each student was told what the study's goal was. Before participating in the study, each student gave their verbal consent. The information was kept private and was coded. Every student has the right to drop out of school at any time.

2.10. Statistical design:

The acquired data were organised, updated, tabulated, and summarised using the statistical package for social science (SPSS) programme. (The following test was used to test for significance depending on the type of data.) The results were presented in appropriate tables, figures, and graphics.

The statistical techniques employed were as follows:

- Percentage
- Mean score degree \bar{X} .
- Standard deviation SD.
- X² chi-square test
- Proportion probability of error (P- value)
- R, test (Correlation Coefficient)

Results

Table (1) shows that the age of the studied students ranged from 18-20 years old with the Mean \pm SD age` 18.46 \pm .50 years, while 53.3% of them are female gender and 78.2% of them are from rural residence.

Figure (1) revealed the level of studied students practice regarding vaginal examination, were 24.89 and 29.4% of them had satisfied, and accepted practice respectively, while 46.07% of them had unsatisfied practice.

Figure (2) showed the level of studied students practice regarding abdominal grips, were 18.56% of them had satisfied practice, 44.32% had accepted practice, and 37.12% of them had unsatisfied practice.

Figure (3) described the level of studied students practice regarding handling, were 18.50 % of them had satisfied practice of handling skill, 34.80% of them had accepted practice and 46.70% of them had unsatisfied practice.

Figure (4) demonstrated that the level of studied students practice regarding perineal care, were 20.35 % of them had satisfied practice, 31.29% of them had accepted practice, while 48.36% of them had unsatisfied practice.

Figure (5) revealed the total satisfaction about studied students practice, 12.03% of them were had satisfied practice in general, 40.09% of them had accepted practice and 47.88% of them had unsatisfied practice.

Table (2): Illustrated that 48.9% and 75.5% doesn't have the desire to learn handling and vaginal examination skills respectively, also 47.4%, 70.7% doesn't appreciate the importance of studying these skills. 71.4% of studied students ashamed from re -demonstrate vaginal exam. skill in front of their colleague. In addition, 76.6, 79.3 and 81.2% of studied students reported that

the number of students appropriates to the lab area in abdominal grips, perineal care and handling skills respectively. Furthermore, 94.1% of studied students reported haven't enough time to re-demonstrate the skill of vaginal examination. Also 79.9 and 82.1% of studied students shows that the number of instructors not sufficient to train students. The communication with trainer appears as another factor faced the studied students while (46.7, 46.7, 47.4 and 60.5%) of them didn't communicating well with the trainer during re- demonstration of vaginal exam., perineal care, handling and abdominal grips skills respectively.

Table (3) showed that, 45.2, 45.2% and 74.7% of studied students demonstrate that the patients doesn't agree to practice the skill with them in perineal care, abdominal grips and vaginal examination. Also about 47.2, 47.2% and 74.7% of them verbalize that the doctor didn't allows them to practice the skills with patients in perineal care, abdominal grips and vaginal examination. in addition, 49.8, 49.8% and 98% of them verbalize that the nurse doesn't allow them to practice skill with patients in perineal care, abdominal grips and vaginal examination. Also 72.1, 74.2% of studied students demonstrated that procedure not applicable in real situation in vaginal examination and perineal care skills. 62.4, 76.6, 77.3 and 77.3% of studied students fear from practice vaginal exam. Handling, perineal care and abdominal grips respectively.

Table (4) illustrated the Correlation between mean of total score of enrolled skills and items of lab Factors, for the studied students desire to learn there were significant correlation between that factor and performance of vaginal examination and handling skills. Also there were significant correlation between studied students ashamed from re -demonstrate and the performance of vaginal examination skill. In addition to the availability of instrument, there was significant correlation between it and the performance of handling skill. In regard to the factor of the appropriateness of the number of students to the area of the lab. there was significant correlation between them and performance of vaginal examination and handling skills. In addition, there were significant correlation between factor of communication with the trainer during re-demonstration and performance of handling and perineal care skills.

Table (1) Distribution of demographic characteristics of the studied students n= (485)

Item	N	%
Age (Years)		
Range	18-20	
Mean \pm SD	18.46 \pm .50	
Gender		
Male	214	46.7
Female	244	53.3
Residence		
Urban	100	21.8
Rural	358	78.2

Figure (1): level of studied students performance about redemonstration of vaginal examinatuon procedure during labor

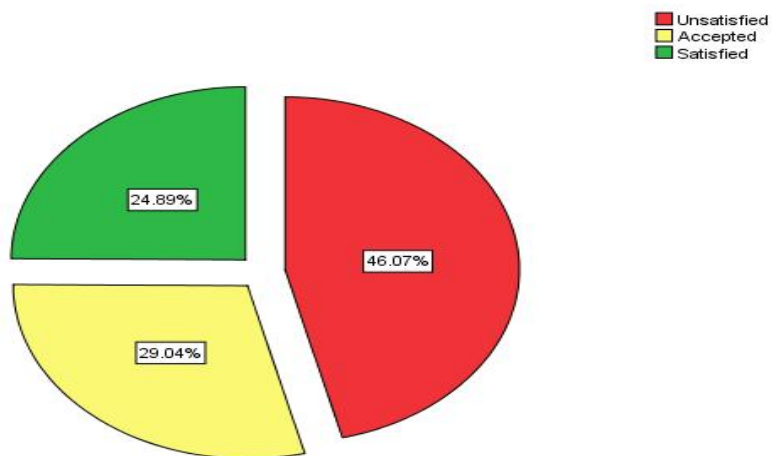


Figure (2): level of studied students performance about redemonstration of abdominal gripping procedure during pregnancy.

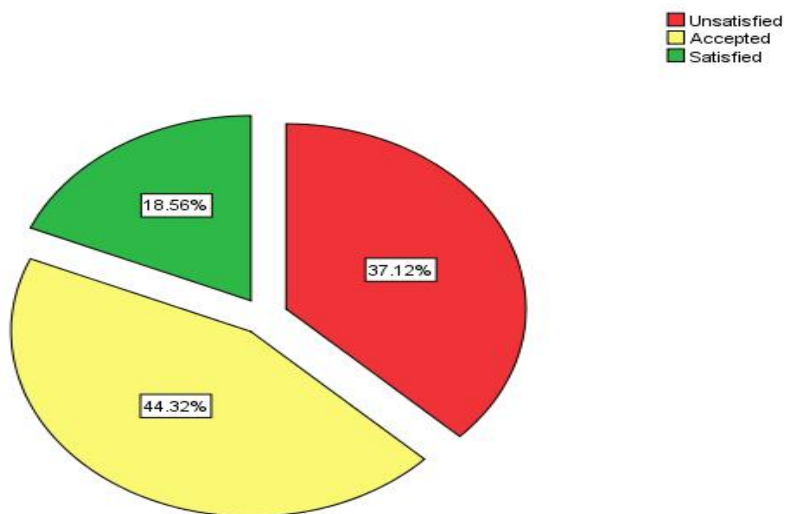


Figure (3): level of studied students performance about redemonstration of handling procedure during labor

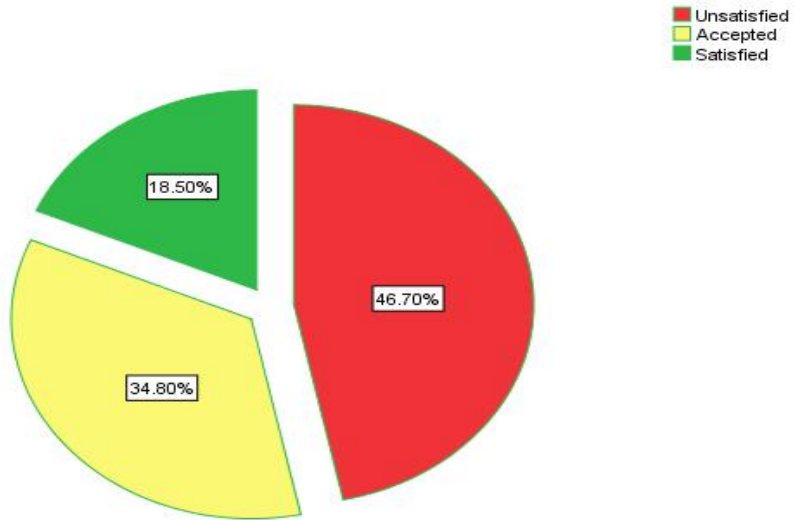


Figure (4): level of studied students performance about redemonstration of perineal care procedure.

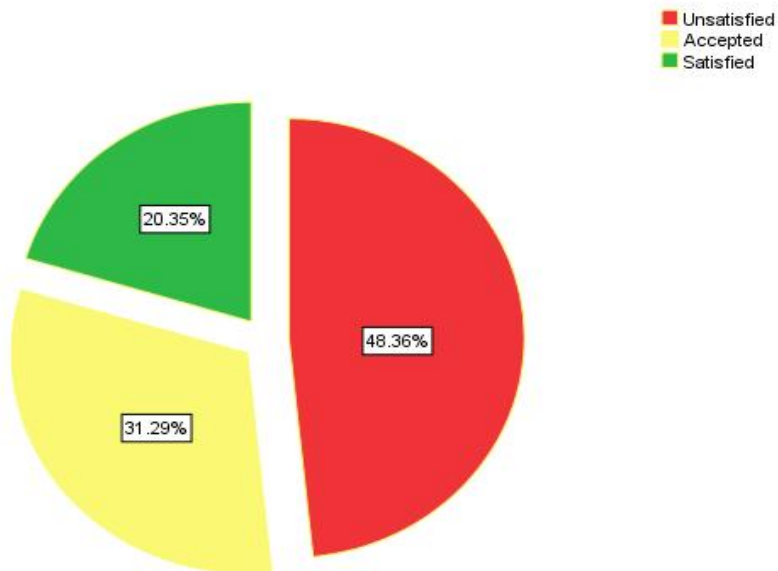
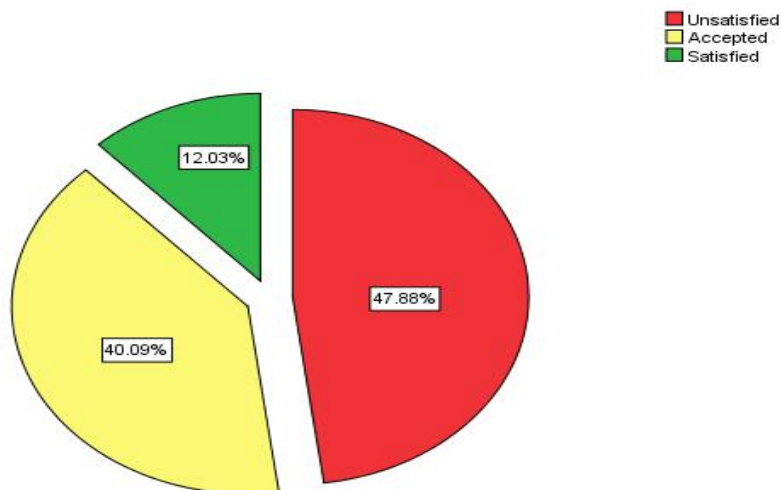


Figure (5): Total satisfaction about studied students performance of redemonstration of enrolled skills.**Table (2)** The factors interfering with the performance of studied students during re-demonstration of procedures in skill lab (n=458):

Lab factors	Vaginal ex.		Abdominal grip		Handling		Perineal care	
	Yes	No 0.	Yes	No	Yes	No	Yes	No
	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)
1-Do you have the desire to learn this skill.	125 27.5%	333 72.5%	308 67.2%	150 32.8%	234 51.1%	224 48.9%	313 68.3%	145 31.7%
2- Do you Appreciate studding this procedure	134 29.3%	324 70.7%	312 68.1%	146 31.9%	241 52.6%	217 47.4%	345 75.3%	113 24.7%
3-Are you ashamed from re -demonstrate the skill in front to you colleague?	327 71.4%	131 28%	85 18.6%	373 81.4%	116 25.3%	342 74.7%	130 28.4%	328 71.6%
4-The availability of laboratory instrument for this procedure.	347 75.8%	111 24.2%	261 57%	197 43%	99 21.6%	359 78.4%	349 76.2%	109 23.8%
5-The laboratory instrument well functional	446 97.4%	12 2.6%	352 76.9%	106 23.1%	328 71.6%	130 28.4%	336 73.4%	122 26.6%
6-The number of students appropriates to the lab area.	350 76.4%	108 23.6%	107 23.4%	351 76.6%	86 18.8%	372 81.2%	95 20.7%	363 79.3%
7-The enough time to re-demonstrate the procedure.	27 5.9%	431 94.1%	362 79%	96 21%	376 82.1%	82 17.9%	340 74.2%	118 25.8%
8-The number of instructors sufficient to train students.	417 91%	41 9%	92 20.1%	366 79.9%	82 17.9%	376 82.1%	334 72.9%	124 27.1%
9- Is the trainer correct your mistakes during application the skill ?	394 86%	64 14%	313 68.3%	145 31.7%	369 80.6%	89 19.4%	354 77.3%	104 22.7%
10-The instructor	400	58	384	74	372	86	343	115

Lab factors	Vaginal ex.		Abdominal grip		Handling		Perineal care	
	Yes	No 0.	Yes	No	Yes	No	Yes	No
	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)
divide the students into small group re-demonstrate the skill.	87.3%	12.7%	83.8%	16.2%	81.2%	18.8%	74.9%	25.1%
11- the trainer's use data show presentation in theoretical background	278 60.7%	180 39.3%	351 76.6%	107 23.4%	370 80.8%	88 19.2%	342 74.7%	116 25.3%
12-you understand the skill through the instructor's explanation	306 66.8%	152 33.2%	361 78.8%	97 21.1%	181 39.50%	277 60.5%	355 77.5%	103 22.5%
13- Are you satisfied with the performance of the trainer to explain the skill of examining the vagina?	304 66.4%	154 33.6%	357 77.9%	101 22.1%	350 76.4%	108 23.6%	325 71%	133 29%
14- Are you communicating well with the trainer during re-demonstration of the skill?	244 53.3%	214 46.7%	181 39.50%	277 60.5%	241 52.6%	217 47.4%	244 53.3%	214 46.7%

Table (3) The factors interfering with the performance of studied students during re-demonstration of procedures in clinical area in hospital (student reported) (n=458):

Factors in clinical sitting	Vaginal ex.		Abdominal grip		Handling		Perineal care	
	Yes	No	Yes	No	Yes	No	Yes	No
	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %
1-The patient agreement to practice this procedure.	116 25.3%	342 74.7%	251 54.8%	207 45.2%	258 56.3%	200 43.7%	251 54.8%	207 45.2%
2-The doctor allows the students to practice this procedure.	74 16.2%	384 83.8%	242 52.8%	216 47.2%	223 48.7%	235 51.3%	242 52.8%	226 47.2%
3-The nurse allows the students to practice procedures.	9 2%	449 98%	230 50.2%	228 49.8%	255 55.7%	203 44.3%	230 50.2%	228 49.8%
4-The instructor observes the student while practice the procedure.	158 34.5%	300 65.5%	111 24.2%	347 57.8%	302 65.9%	156 34%	111 24.4%	347 75.8%
5-The hospital working hours sufficient to train students .	295 64.4%	163 35.6%	354 77.3%	104 22.7%	370 80.0%	88 19.2%	344 75.1%	114 24.9%
6-The availability of cases the number of students.	112 24.5%	346 75.3%	100 21.8%	358 78.2%	312 69.4%	140 30.6%	110 24 %	348 76%
7-The availability of instrument to practice this procedure.	113 24.7%	345 75.3%	361 78.8%	97 21.2%	260 56.8%	198 43.2%	321 70.1%	137 29.9%
8-The applicability of the procedure on real situation .	128 27.9%	330 72.1%	225 49.1%	233 50.9%	162 35.4%	296 64.6%	118 25.8%	340 74.20%
9-The fear from practice this procedure to prevent complication to mother and fetus.	286 62.4%	172 37.6%	354 77.3%	104 22.7%	351 76.6%	107 23.4%	354 77.3%	104 22.7%

Table (4) Correlation between mean of total score of enrolled skills and items of lab factors.

Items		Vaginal exam. (15 point)	Abdominal grips (39 point)	Handling (22 point)	Perineal care (20 point)	Total of skills
Mean ± SD		11.8 ± 3.65	24.34 ± 4.52	12.88 ± 41.5	15.61 ± 5.10	64.0980± 13.76863
1-Do you have the desire to learn this skill.	r	.123	-.016-	.270	-.080-	.012
	Sig.	.008*	.730	.000*	.087	.808
2- Do you Appreciate studding this procedure	r	.111	.052	.225	-.015-	.027
	Sig.	.018*	.272	.000*	.752	.572
3-Are you ashamed from re - demonstrate the skill in front to you colleague?	r	.082	.001	.029	.037	.018
	Sig.	.080	.982	.537	.434	.701
4- Does the laboratory necessary tools to do this skill are available ?	r	-.037-	.076	.247	-.035-	-.033-
	Sig.	.433	.108	.000*	.460	.482
5- Are the tools in the lab properly and functioning?	r	.197	-.057-	.012	-.100-	.018
	Sig.	.000*	.223	.794	.032*	.708
6- Is the number of students appropriate to the area of the lab during the re demonstration of skill?	r	.013	.041	.109	-.044-	.032
	Sig.	.790	.390	.020	.344	.497
7- Are you given enough time to re demonstrate the skill to the lab?	r	.092	-.004-	-.166-	-.063-	.000
	Sig.	.050*	.932	.000*	.181	.999
8- Is the number of trainers sufficient to train students to re-demonstrate skill?	r	-.073-	-.029-	.063	.115	.031
	Sig.	.118	.537	.177	.014	.515
9- Is the trainer correct your mistakes during application the skill ?	r	-.080-	.093	-.080-	-.098-	-.027-
	Sig.	.088	.047*	.089	.036*	.562
10-Is the trainer, classified students into groups to re applying skill?	r	-.200-	-.039-	-.068-	.015	-.041-
	Sig.	.000*	.411	.146	.753	.387
11- Do the trainer's use data show presentation in theoretical background to facilitate understanding of the skill?	r	-.086-	-.057-	-.123-	-.072-	-.081-
	Sig.	.066	.228	.009	.126	.086
12- are you understand the trainer demonstration of this skill ?	r	.073	.016	.078	.021	-.007-
	Sig.	.120	.735	.097	.657	.877
13- Are you satisfied with the performance of the trainer to explain the skill of examining the vagina?	r	-.049-	-.067-	-.088-	-.033-	-.026-
	Sig.	.293	.152	.060	.481	.584
14- Are you communicating well with the trainer during re-demonstration of the skill?	r	.010	-.029-	-.126-	-.080-	-.009-
	Sig.	.420	.269	.004**	.045*	-----
Total of lab factors	r	-----	-----	-----	-----	.008
	Sig.	-----	-----	-----	-----	.860

Discussion :

The results of the current study's analysis of student characteristics showed that the majority of the studied students come from rural areas and that the majority of the students were between the ages of 18 and 20, with the mean age being 18.46 years.

According to the results of the current study, more than half of studied students have the desire to learn enrolled skills except vaginal examination during labor. This result was close to a 2015 study by **Mbirimtengerenji, et. Al**, which found that, on average, 52.7% of nursing students agreed that they show interest in clinical student learning. On the other hand, **(Abbasi, Rabiei et al. 2018)** who showed that the most significant barriers included the

students' lack of motivation and willingness, lack of adequate academic knowledge, and lack of self-confidence. According to the researcher, students in the current study are able to learn practical skills or already possess them since they are interested in learning about the new nursing course on maternal and newborn health and the kinds of practical skills that will be covered in it. While in prementioned research, students' low academic performance was due to their lack of enthusiasm and insufficient academic understanding about practical training.

The current study's conclusion makes clear that more than three-quarters of the studied students feel confident from Remonstrated skills in front of their colleagues and positive communication between students

this finding was in accordance with **(Jahanpour, Azodi et al. 2016)** who found Students described that communication with their classmates in the educational environment was positive and satisfying.

The results of the current study showed that more than two thirds of the students demonstrated correct usage and proper functionality of the lab's equipment in the four mentioned skills. This finding is consistent with a research by **AE, AR, et al. (2018)** which found that students had a neutral opinion of the simulation equipment and instructional strategies. Contrarily, numerous students in the research "Suggestions to address the gap in nursing education: Nursing students' perspectives" **(Saifan, Safieh et al. 2015)** stated that the laboratories were underequipped to adequately train nursing students for the complicated real-world clinical setting.

In contrast, **(Saifan, Safieh, et al. 2015)** reported that numerous students explained that the laboratories were not well equipped to teach nursing students for the real-world clinical situation. Furthermore, according to **(Tiwaken, Caranto, et al. 2015)** in their study, the availability of school programmes, library references, comfortable classrooms, and fast internet access were all deemed to have a high impact on the academic performance of student nurses. While the opposing outcome **(De Bellis, Sanarica et al. 2018)** revealed that 63.9 percent of students said lab equipment didn't match the required student competencies.

From a researcher's perspective, the reason the equipment is accessible in the lab for the present study is because the laboratory has a follow-up committee that monitors its demands and works to provide them while also gradually checking the equipment's functionality.

The results of the current study showed that three-quarters of the students stated that they had adequate time to demonstrate their skills. Additionally, a study by **Masenga (2015)** showed that (60%) respondents identified a lack of adequate time for both clinical and skills laboratory practise as a contributing factor to nursing students' poor academic performance. According to a researcher, The excessive number of students leads to time

consumption in questions and external discussions.

The findings of the current study showed that virtually all of the studied students demonstrated that there are not enough instructors to adequately teach students in re-demonstration of the abilities. This result is consistent with **Masenga's (2015)** research on the factors influencing nurses' poor academic performance. The majority of students who responded said that the number of teachers in the schools is insufficient.

The results of the current study showed that the majority of studied students demonstrated how the instructor supports them throughout practical training and corrects their errors when they re-demonstrate their skills. This result is consistent with the findings of **(Mohammad Jad 2020)**, who found that (67%) of participants concur that the teacher directs and guides students when they are implementing nursing care. While **(Saifan, Saifan et al. 2015)** found that more than half of the students said they didn't get enough help in the clinical field. In the fact, the instructor supports and guides students in their practical training and corrects their faults with it. They also make sure that the students receive explanations of skills, whether from a practical or theoretical perspective.

According to the findings of the current study, more than three-quarters of the students who participated in it made it clear that the teacher should provide data during a lesson on practical skills to help students grasp them. This result is consistent with **(AE, AR et al. 2018)**, who found that more than half of the students were satisfied with the simulation's provision of a range of educational resources and activities to support studying the maternity curriculum.

The majority of the studied students stated that the students were divided into small groups to re-demonstrate skills. This conclusion contrasts with **(Shadadi, Sheyback et al. 2018)** who reported a high number of interns in their study, the instructor divides the class into small groups to rehearse the skills because there are too many students and not enough instructors to handle them. This will help the instructor

deal with the students more effectively and ensure that the students receive the information.

Three-quarters of studied students showed that they understood the instructor's description of the skills, which raises questions regarding students' perceptions of the instructor's effectiveness. Only 54.3% of students from all nursing colleges agreed that their nurse tutors effectively demonstrate clinical procedures both in class and in the clinical area, according to a study by **Mbirimtengerenji, Daniels, et al. (2015)**. On the other hand (**Baraz, Memarian et al. 2015**) revealed that students' experiences demonstrated that most instructors, especially beginner lecturers, had sufficient clinical experience, theoretical and practical knowledge, and capacities.

According to the results of the current study, more than half of the studied students included claimed that their patients did not want them to practise their skills on them. Similar to (**Shadadi, Sheyback et al. 2018**), who discovered that the patient or their companions were complaining about nursing tasks being performed by students. Additionally, in **Hashemiparast, Negarandeh et al. (2019)**, the participants highlight the patients' and their families' opposition to students doing clinical chores. From the researcher point of view, the patients didn't want to practise their skills with the students because they distrusted them and untruthed with their abilities or perhaps due to fear from mistakes.

The findings of this study revealed that about half of the studied students showed that doctors don't let students practise practical skills on actual patients. **Gemuhay, Kalolo et al. (2019)** reported that the majority of nursing students (84.4%) agreed that clinical placement offers students an adequate opportunity to practise clinical skills. This result doesn't on the same line with their findings. According to a researcher, in a recent study, students demonstrated that the doctor doesn't enable students to practise practical skills with patients due to poor communication between students and the doctor since there are too many students in the ward and they all have more questions.

According to the results of the present study, more than half of students say that the instructor should not observe every student during practicing skills when they are at a hospital. This finding is consistent with a 2015 study by **Baraz, Memarian, et al.** their participants were complaining about certain instructors' low attendance at clinical education classes. While (19%) of the students from Ekwendeni Nursing College and Mulanje Nursing College believed that their nurse tutors had a sense of support and caring during instruction, both in class and in the clinical area, this was disputed by (**Mbirimtengerenji, Daniels et al. 2015**).

Less than two thirds of studied students in the current study proved that hospital working hours are sufficient for students to get practical training skills. Also revealed that more than three-quarters of the students had demonstrated that the number of hospital cases during practical training is insufficient for the number of students. This result was consistent with a research by (**Bafageeh, AlAboud et al. 2020**) who made the students' reports. Following the maternity course reported that the absence of access to cases had an impact on their professional practise.

Also The findings of the current study showed that more than three-quarters of studied students explicitly state that certain students do not need the hospital's required equipment to practise their skills during practical training. This outcome is consistent with the findings of (**Odetola, Oluwasola et al. 2018**), who discovered that some technical instruments were not available. Additionally, **Kerthu and Nuuyoma (2019)** participants felt that there were not enough resources available in the clinical context. This finding conflicts with that of (**Abu Salah, Aljerjawy et al. 2018**), who found that more than two thirds of participants agreed that clinical training should be replaced with access to equipment and supplies for healthcare.

Concerned about communication were nurses and students. Two thirds of the students explained that during practical training in the hospital, the nurse did not permit studied students to demonstrate their skills on actual patients. while **Odetola, Oluwasola, et al.**

(2018) the students saw that conflicts with other nursing personnel limited their ability to study in the ward and apply their information.

Additionally, more than two thirds of students stated that they are hesitant to practise skills on patients out of concern for complications or patient safety. This is in line with the findings of **Hashemiparast, Negarandeh et al. (2019)** who discovered that students lack confidence in their clinical competence. The learners also lacked confidence in their ability to apply the knowledge they had learned, which made them question their ability to carry out tasks independently.

According to the present study's findings, around half of the studied students were unsatisfied overall in practicing skills, while two fifths of them were an acceptable level and fewer than one quarter were satisfied. These results near of **(AE, AR et al. 2018)** who revealed that 46.3% of students had a moderate degree of satisfaction with their learning of simulation exercises. Also results of **Salimi et al. (2012)** showed that 50%, and 37.4% of nursing and midwifery students had good clinical competence and clinical Self-Efficacy, respectively. Also, the mean competencies and self-efficacy in clinical performance scores were 35.05 ± 1.2 and 76.03 ± 0.4 , respectively.

Malakooti et al. (2018), illustrated that that the level of students' skills at Leopold was 42.7%.

The current study revealed that there was a statistically significant correlation between factors and student practices at $r = 0.432$, and ($p > 0.001$). In similar lines, **R.A et al. 2018** reported that there was a highly negative significant correlation between total barrier score and total satisfaction score at ($p > 0.001$).

Conclusion:

This study concluded that, there were numerous factors significantly interfering with the performance of studied students in a maternal and newborn health course at a technical institute of nursing. These factors included lab factors such as the number of students not fitting into the lab space during re-demonstration of skills, and the number of instructors not suitable to the number of

students. Additionally, clinical sitting factors such as inability of instructor to observe all students in the clinical area during practise skills. There were a correlation between factors and student performance during maternal and infant practical training health course at a technical institute of nursing.

Recommendations:

Based on the finding of this study, the researcher recommended that:-

Appeal the technical institution directorate to offers a suitable lab setting including space and tools and recruit more staff to cover the gaps and enhance student clinical follow-up, educational and practical training. Also The value of curriculum management and goal-setting.

Effective administration of the clinical training site and the technical nursing institution to enhance learning during practical training (provide the setting, interact with nurses and physician). Collaborate to provide nursing graduates who can manage patients and accomplish agency objectives.

Further research is recommended using different protocol with different evidence with a large sample size and in different setting.

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