

**RESEARCH ARTICLE**

# AN ANALYSIS OF NURSING AND MIDWIFERY STUDENTS' PERCEPTIONS OF VOCATIONAL TRAINING ENVIRONMENT AND PRECEPTOR PERFORMANCE

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**Abstract:** The study looks at how nursing and midwifery students of the University of Health and Allied Sciences feel about their vocational training environment and how well their preceptors perform. The findings show that students' satisfaction with their clinical ward environment, preceptor's leadership style, supervisor-patient relationship, and placement staff-preceptor collaboration were higher than expected. Satisfaction was lower than expected in leadership, theory-to-practice integration, and student-preceptor relationship. The study suggests improving vocational training environment aspects with lower priority scores and satisfaction scores, arguing that students' expectations and satisfaction are just as important in determining vocational training effectiveness.

**Keywords:** Vocational training, Preceptor roles, Students' expectation and Satisfaction, Quality vocational training outcomes.

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## INTRODUCTION

In order to adequately prepare students for their future careers as healthcare professionals, nursing and midwifery education is essential (Duffy *et. al.*, 2019). Vocational training, which gives students the practical experience and abilities needed for clinical practice, is a key component of this education (Levett-Jones *et. al.*, 2018).

Students studying nursing and midwifery frequently have a variety of educational backgrounds, and many have worked in healthcare-related industries before (Price *et. al.*, 2020). Furthermore, a considerable segment of the student body might possess prior job experience in healthcare environments, thus impacting their educational experiences throughout their vocational training (Zamanzadeh *et. al.*, 2015).

Clinical placements in healthcare settings are a common component of vocational training in nursing and midwifery, where students work under the supervision of preceptors-experienced professionals with a wealth of knowledge (Edwards. *et. al.*, 2019).

According to Smith *et. al.* (2021), these placements give students the chance to put their theoretical knowledge to use in practical situations and hone their clinical skills.

Studies have indicated that students pursuing nursing and midwifery place a high importance on an inclusive, encouraging, and resource-rich vocational training programme that offers chances for education and career advancement (Andrews *et. al.*, 2017). However, difficulties including a heavy workload and a lack of mentorship opportunities might have a bad effect on how students view the training setting (Cleary *et. al.*, 2018).

Preceptors are essential in helping nursing and midwifery students during their clinical rotations. They offer direction, criticism, and support to help students make the transition from student to professional practice (Myrick and Yonge, 2016). Improved student confidence, competence, and general satisfaction with occupational training

experiences have all been linked to effective preceptorships (Munten *et. al.*, 2010).

## Objectives of the Study

The study sought to:

- Evaluate and contrast the expectations and satisfaction levels of nursing and midwifery sandwich students regarding the various aspects of the vocational training environment.
- Find out if there are any performance discrepancies regarding the various aspects of the vocational training environment.
- To find out if the difference in student expectations and satisfaction levels is statistically significant.

## Hypothesis

The researchers proposed the following hypothesis:

**Ho:** There is no statistically significant difference between students' expectation scores and satisfaction scores with vocational training environment factors.

**Ha:** There is a statistically significant difference between students' expectation scores and satisfaction scores with vocational training environment factors.

## LITERATURE REVIEW

In the next section, we will look at recent research to determine what factors influence students' satisfaction with their vocational training environment.

### The Factors Influencing Effectiveness of Vocational Training Environment

#### Ward Atmosphere

The physical environment of the clinical training ward has been extensively studied and found to play a significant role in student satisfaction. Studies have found that students are more satisfied in wards that are clean, comfortable, have access to resources, and have access to equipment. Clinical preceptors and how they interact with students have also been extensively studied (Johnson *et. al.* 2021).

Studies have found that nurses and midwives who have good relationships with their preceptors, good communication, and good

mentorship are more satisfied. Educational support: The clinical training ward environment provides students with educational support and opportunities to learn and develop skills. Studies have shown that structured learning experiences, good feedback, and hands-on practice are important in increasing students' satisfaction and confidence.

The degree of interprofessional collaboration in the clinical training ward environment has been identified as one of the key determinants of student satisfaction (Clark & Pateli, 2020). Interprofessional collaboration between healthcare professionals, such as nurses, midwives and physicians, contributes to a healthy learning environment and helps students to understand multidisciplinary teamwork better.

Workload, stress and coping mechanisms have been studied in several studies to determine how students feel about their clinical training ward environment. Strategies to manage workload, address stressors, and promote self-care have been identified as important for maintaining satisfaction and overall well-being.

To sum up, the literature provides valuable information on the factors that influence the satisfaction of nursing and midwife students with their clinical training ward environment. While much has been achieved in terms of understanding the role of the clinical environment, clinical pre-emption, training support, inter-branch collaboration, workload management, and more, there are still significant gaps in the literature. Future research should focus on identifying new ways to improve the clinical training wards environment to improve students' learning outcomes and satisfaction.

#### Leadership Style of the Preceptor

A longitudinal study by Johnson and Smith (2017) looked at the relationship between nursing student satisfaction with a clinical training experience and a preceptor's leadership style. The study was based on a qualitative analysis of nursing students' perceptions of the preceptors' leadership style (Brown *et. al.*, 2016).

The results showed transformational leadership (motivation, thought processes,

personal attention, idealized impact) had a significant effect on students' satisfaction with the training experience. The results of the study showed that the combination of transformational leadership and transactional leadership, combined with supportive behaviours, improved students' satisfaction and perception of learning outcomes throughout the clinical training programme.

In another study, Garcia *et. al.*, (2019) looked at the relationship between midwifery student satisfaction levels and the satisfaction of their preceptors when they were taught by a midwifery leader who demonstrated clear communication, goal-setting, performance feedback, and other transactional leadership qualities.

In Martinez (2023) and Brown (2023), "Servant Leadership and Student Satisfaction in Nursing and Midwifery" was a study that focused on the relationship between servant leadership and student satisfaction. The study found that servant leadership qualities, including empathy, humility and stewardship, play an important role in fostering a supportive learning environment conducive to student growth, development and satisfaction in their clinical experiences.

From the literature on the impact of the preceptor's leadership style on the satisfaction of nursing and midwife students with their clinical training shows that transformational, transactional and servant leadership styles have a positive impact on students' satisfaction levels and learning outcomes. More research is needed to identify effective strategies for improving preceptors' leadership skills and improving students' educational experiences.

### **Leadership of the Preceptor to Nursing Care**

The way a preceptor guides nursing and midwife students in providing nursing care has a significant impact on their clinical training satisfaction. A preceptor's leadership style, communication skills, and support have a direct impact on students' confidence, competency, and overall nursing care satisfaction. In this review, we look at the satisfaction of nursing and midwifery students with their leadership in nursing care.

Students' perception of the role of the preceptor in providing nursing care was examined in a qualitative study (Brown *et. al.* 2016). The results of the study showed that the preceptor's transformational leadership significantly improved students' overall satisfaction with nursing care.

Students' confidence and ability to deliver nursing care were positively impacted by the presence of inspirational motivation, intentional stimulation, individualized consideration, and idealized influence. A study (Johnson and Martinez, 2018) looked at the role of the preceptor in the satisfaction of nursing and with midwifery care.

The findings showed that effective communication, supportive leadership, and clinical knowledge significantly enhance student satisfaction and nursing care quality in clinical placements. Garcia et al.'s (2020) study found that nursing students' satisfaction with nursing care delivery increased when the preceptor's leadership style was combined with supportive behaviours in clinical placements.

In another study (2023), Martinez and Brown (22) looked at the impact of servant leadership on the satisfaction of nursing and midwifery students with nursing care provided by preceptors. They found that servant leadership qualities (e.g. empathy, humility, stewardship) played an important role in creating an environment conducive to high quality nursing care provision, resulting in greater satisfaction among students.

The literature shows that preceptor leadership has a positive effect on the satisfaction of nursing and midwifery students with the provision of nursing care. The transformation, support, transactional and servant leadership style of the preceptor has a positive impact on the students' confidence, competence and satisfaction with the delivery of nursing care. Further research needs to be conducted to identify effective strategies for the development of preceptors' leadership skills and to optimize students' educational experiences with nursing care.

### **Supervisory Relationship**

Nursing and midwifery students' satisfaction with their supervisory relationship with their mentors is a key determinant of their clinical training experience.

A healthy supervisory relationship promotes support, guidance and mentorship, which positively impacts students' learning outcomes and satisfaction. A qualitative study (Brown *et. al.* 2016) looked at how nursing students perceived their supervisory relationship. The results showed that students felt more satisfied with their clinical training when their supervisory relationship was supportive and constructive.

The main factors that contributed to this were clear communication, mentorship and opportunity for learning and growth. Another longitudinal study (Johnson and Smith, 2018) looked at how the supervisory relationship influenced midwifery student satisfaction with clinical training in different clinical placements. Midwifery students said that they felt more satisfied when their mentors were supportive and collaborative.

The results of this study also showed that students' perceptions of their supervisory relationship were improved when the supervisory relationship was ongoing and when communication and mentorship were effective. A longitudinal study (Garcia, 2020) looked at how a supervisory relationship's stability and its impact on nursing student satisfaction across different clinical placements

According to Martinez (2023), "Emotional intelligence plays an important role in the formation of the supervisor-student relationship and in the satisfaction of nursing and midwifery students." According to Martinez, "Mentors' emotional intelligence plays a key role in establishing rapport, building trust, and providing effective support to students, resulting in higher levels of satisfaction."

The literature shows that a supportive, constructive and emotionally intelligent supervisor-student relationship has a positive effect on student learning outcomes and satisfaction with the clinical training experience.

Further research needs to be conducted to identify strategies for improving mentors' ability to build and maintain healthy supervisory relationships in order to optimize students' clinical training experiences.

### **Role of Preceptor *Preceptor as a Means of Bringing Theory and Practice***

Preceptorship provides nursing and midwifery students with valuable opportunities to apply theoretical concepts in real-world clinical settings, enhancing their clinical reasoning and decision-making skills (Birks *et. al.*, 2016). Moreover, preceptors serve as role models and mentors, guiding students' professional development and instilling confidence in their abilities (Cant & Cooper, 2017).

Several factors contribute to students' satisfaction with their preceptors. Effective communication, approachability, and mentorship qualities are crucial determinants of satisfaction (Choi *et. al.*, 2019). Additionally, preceptors' clinical expertise, teaching skills, and ability to provide constructive feedback significantly impact students' learning experiences and satisfaction levels (Lewis *et. al.*, 2021).

The quality of the preceptor-student relationship directly influences students' learning outcomes. Students who report higher satisfaction with their preceptors demonstrate greater competence in clinical practice, improved critical thinking abilities, and enhanced professional identity formation (Forber *et. al.*, 2018). Furthermore, Dennison *et. al.* (2020) found that positive preceptorship experiences enhance students' satisfaction with their nursing or midwifery training.

Despite the benefits of preceptorship, challenges exist in ensuring optimal satisfaction among nursing and midwifery students. Issues such as workload pressures, inadequate preceptor preparation, and lack of institutional support can negatively impact the preceptorship experience (Cleary *et. al.*, 2017).

Addressing these challenges requires implementing comprehensive preceptor training programs, fostering supportive clinical learning environments, and promoting collaborative partnerships between educational institutions and healthcare facilities (Cashin *et. al.*, 2016).

The quality of the relationship between a preceptor and a nursing or midwifery student

is essential for the incorporation of theory and practice into their education. Educators and healthcare institutions can improve the quality of the relationship by understanding the factors at play, the impact on learning outcomes and the challenges that come with being a preceptor.

### ***Cooperation between Placement Staff and Preceptor***

For clinical placements to go smoothly and maximize students' educational opportunities, collaboration between preceptors and placement personnel is essential. Placement personnel are essential in helping students be placed, and preceptors coach and educate students in the clinical setting, assisting with their professional development (Grealish *et. al.*, 2016).

Students' satisfaction with the collaboration between the placement staff and the preceptors is affected by several factors. Communication, respect for one another, and shared objectives between the student trainees and the preceptors are conducive to a good learning experience. Mason (2020) highlights the importance of resource coordination and collaboration in enhancing students' access to diverse learning experiences and fostering the development of clinical skills.

The degree of collaboration between preceptors and placement personnel has a direct bearing on the learning outcomes of students. Higher levels of satisfaction with clinical placements are reported by students who believe that placement personnel and preceptors work well together. This enhances confidence, competence, and professional preparation for practice (Papp *et. al.*, 2018). Positive cooperation also enhances students' involvement and sense of belonging in clinical settings, which benefits their entire educational experience (Levett-Jones *et. al.*, 2019).

Despite its significance, encouraging productive collaboration between preceptors and placement staff is not without its difficulties. Collaboration can be hampered by problems like poor communication, competing agendas, and scarce resources (Shinners *et. al.*, 2021).

Fostering a collaborative culture, offering preceptors and placement staff continual

support and opportunity for professional growth, and putting methods in place to enhance communication and teamwork are all necessary to address these problems (Browne *et. al.*, 2022).

Placement staff work closely with preceptors to ensure clinical placements are successful. Understanding the factors that influence placements, the impact of placements on learning, and the challenges associated with placements can help educators and healthcare providers improve clinical learning experiences and prepare students for compassionate and competent practice in their fields.

### ***Relationship among Student, Preceptor / Nurse Teacher***

Relationships between nursing students, midwives, and nurse teachers play an important role in shaping students' educational experiences and professional growth. Creating a welcoming and helpful learning environment requires good connections between preceptors, nurse teachers, and students. Good relationships promote efficient mentorship, communication, and teamwork, which improves student motivation, engagement, and learning outcomes (Price *et. al.*, 2017).

Students' satisfaction with the dynamic between themselves, their preceptors, and their nurse teachers is influenced by a number of factors. Positive relationships are built on the fundamentals of mutual respect, trust, and open communication (Manninen *et. al.*, 2019). Furthermore, students' happiness and wellbeing are greatly impacted by the availability of emotional support, direction, and constructive criticism from preceptors and nurse teachers (Hyrkas *et. al.*, 2020).

The caliber of the interactions between preceptors, nurse teachers, and students has a direct impact on the educational and career experiences of the latter. Good relationships help students feel like they belong, are confident, and can handle challenges on their own, which enhances their clinical competency and prepares them for the real world (Andrews *et. al.*, 2018).

In addition, according to Levett-Jones *et. al.* (2019), supportive interactions help students adjust to their professional roles and encourage lifelong learning and job

satisfaction. Building strong bonds between students, preceptors, and nurse teachers is not without its difficulties, despite the advantages.

Relationship strain and ineffective collaboration can be caused by problems such as role ambiguity, power imbalances, and task pressures (Brown *et. al.*, 2021). In order to overcome these obstacles, it is necessary to foster an environment of decency, empathy, and cooperation; train preceptors and nurse teachers as mentors; and use communication techniques to improve interpersonal abilities (Browne *et. al.*, 2019).

## **REVIEW OF PREVIOUS STUDIES STUDENTS' SATISFACTION OF VOCATIONAL TRAINING LEARNING ENVIRONMENT**

Walsh, Owen, Mustafa, and Beech (2020) conducted research on instructional strategies and learning environments that support student nurses' resilience-building. They discovered that the ability to bounce back from setbacks, stress, and obstacles in the workplace is a crucial quality for nurses. The survey found that nursing students rated the ward manager's leadership style as the worst in the department.

According to a study on the clinical learning environment satisfaction of nursing and midwifery students, Habimana, Tuyizere, and Uwajeneza (2016) discovered that preceptor leadership style, supervisory relationship, collaboration between placement staff and preceptor, and accomplishment of vocational training goals went above and beyond what students in Rwanda had anticipated.

In their study, Tomietto, Comparsini, Saarikoski, Simonetti, and Cicolini (2014) found three key elements that supported the development of skills during a vocational training placement and had an impact on students' acquisition of professional abilities: a positive ward environment; strong ward manager leadership; and preceptors' efficient supervisory interaction with preceptees.

From the literature reviewed, it was found that the relationship between students, preceptors and nurse teachers is the foundation of nursing education and the midwifery profession.

By understanding the drivers, influences on learning outcomes and obstacles, educators and healthcare providers can create a nurturing learning environment that encourages students to excel in their studies and careers.

### **Problem Statement**

Vocational training is a crucial tool in nursing and midwifery training, bridging the gap between theory and practice. Still, not much is known about how students view their vocational training program and the work of their preceptors, who are essential to their educational journey. To ensure that vocational training programs are effective in preparing students for professional practice and to identify areas for improvement, it is imperative to comprehend these perceptions.

### **METHODOLOGY**

#### **Study Design**

The methodology of the study was based on quantitative research with descriptive cross-section design. The study was carried out in a positivistic paradigm. According to the positivist perspective, a study's quality is determined by its reliability, replicability, and internal and external validity (Scotland, 2012). The researchers made the assumption that every undergraduate sandwich student who had participated in a clinical practice placement was aware of the various factors that influence feelings of pleasure and unhappiness in a clinical setting.

A study using a cross-sectional design looks at a population at different stages or levels of schooling at the same time in order to describe changes over time (Grove *et. al.*, 2015). Hence, the sandwich undergraduate students at all levels made up the target demographic in order to gather data about the University of Health and Allied Sciences undergraduate sandwich student body as a whole.

This study was conducted at the University of Health and Allied Science's vocational training facilities in various regions of Ghana. The regions include Ahafo, Ashanti, Bono East, Bono, Central, Eastern, Greater Accra, North East, Northern, Oti, Savannah, Upper East, Upper West, Volta, Western North, Western.

The study was conducted in a variety of learning environments spread across 16 administrative regions of Ghana, including the Clinic, CHPS compound, District/Municipal Hospital, District/Regional Health Directorate, Fitness center, Health Center, Mission Hospital, Polyclinic, Regional Hospital and Teaching Hospital.

### **Population and Sampling**

All University of Health and Allied Sciences undergraduate sandwich students were included in the target demographic.

A total of 172 undergraduate sandwich nursing and midwifery students were chosen at random from the levels 100, 200, 300, and 400 cohorts of the 2022/2023 academic year to willingly engage in the study. 98% of the returns were made.

### **Data Collection Instrumentation**

For this study, the self-administered modified scale was used as a data collection tool. The self-administered modified scale is a validated and trusted tool for assessing the vocational training environment and supervision, as well as the preceptor evaluation.

The closed-ended questions and the Likert scale are based on the questions developed by Saaricoski (2008), Isoaho (2008), Warne (2008), and Kilpi, (2008). The 34 items in the modified instrument ask students to rate the importance or expectations of various features of the vocational training setting as well as their level of satisfaction with them. This was most suitable instrument since it provides a means of determining the performance gap.

### **Pre-testing of Instrument**

A pre-test was administered to thirty undergraduate level 300 nursing and midwifery regular students at the university under study. The pilot aimed to assess students' comprehension of questionnaire questions and their completion time. It took 15 to 20 minutes to complete the questionnaire.

If there was anything in the questionnaire that the participants did not understand, they were advised to ask questions and make comments. The questionnaire was modified in light of pilot test feedback and conclusions.

### **Reliability and Validity**

The scale for the vocational training environment, supervision, and preceptor has a very high Cronbach's alpha of 0.977.

### **Data Collection**

During the first semester of the 2022–2023 academic year, the researchers created the survey instrument, put it in a Google form, and sent the URLs to willing participants through their emails and group platforms.

### **Techniques of Data Analysis**

The statistical software used to analyse the data was SPSS 26.0. Data on continuous variables were tallied and displayed as means, standard deviations, and frequencies. To show how variables relate to one another, statistical analysis results are displayed in tables. At the significant level of 0.05, statistical associations were used to find relationships between the independent and dependent variables. Descriptive statistics were specifically employed to provide an overview of the demographic factors, including age, gender, year of study, and kind of vocational training facility used during their most recent placement.

As a result, the frequencies of these variables were determined and shown in tables. The relationship between importance/expectations and vocational training environment factor satisfaction among sandwich students was examined using the Pearson correlation coefficient. The Wilcoxon Rank-Sum Test was used to analyze non-normally distributed data sets to determine significant differences in students' expectations and satisfaction regarding vocational training environment factors. P less than 0.05 was used to define statistical significance.

### **Ethical Considerations**

Prior to their involvement in the study, respondents were required to sign an informed consent form. Principles of ethics that include beneficence, justice, anonymity, confidentiality, and the freedom to self-determination were upheld.

## **RESULTS**

### **Demographic Characteristics of Respondents**

The majority (86.6%) of the students were

within age bracket of 30+ years. Of the 172 students, 82% of them were females, and 18% were males indicating that more females are being trained to enter the health care profession. All the students were sandwich students who come to the university campus for their face-to-face lectures during long vacation in June to August and November to December after which they are placed at the following vocational training environments:

CHPS Compound, District/Municipal Hospital, District/Regional Health Directorate, Health Center, Mission Hospital, Polyclinic, Regional Hospital and Teaching Hospital across the country during their vacation. Of the 172, respondents, 44.1% were in level 200, 39.0% were in level 300 and 16.9% were in their final year, level 400. The characteristics of the sample are shown in Table 1.

**Table 1: Demographic characteristics of respondents**

Characteristic	Frequency	Percentage
<b>Gender</b>		
Female	141	82.0
Male	31	18.0
<b>Age (in years)</b>		
20-24	1	0.6
25-29	22	12.8
30+	149	86.6
<b>Level</b>		
200	76	44.1
300	67	39.0
400	29	16.9
<b>Vocational Learning environment</b>		
CHPS compound	1	0.6
District/Municipal Hospital	87	50.6
District/Regional Health Directorate	2	1.2
Health Center	13	7.6
Mission Hospital	28	16.3
Polyclinic	15	8.7
Regional Hospital	10	5.8
Teaching Hospital	16	9.3
<b>Region of Practice</b>		
Ahafo	1	0.6
Ashanti	8	4.7
Bono East	4	2.3
Bono	6	3.5
Central	16	9.3
Eastern	14	8.1
Greater Accra	30	17.4
North East	4	2.3
Northern	6	3.5
Oti	7	4.1
Upper East	3	1.7
Upper West	3	1.7
Volta	44	25.6
Western North	8	4.7
Western	18	10.5

Source: field data, 2023

## Results of Statistical Analysis

**Table 2: Students' rating of importance and satisfaction of vocational training environment's success factors**

Scale categories	Importance	Satisfaction	Gap
	Mean (SD)	Mean (SD)	Mean (SD)
Facility/Ward atmosphere	5.94 ( $\pm 1.04$ )	5.99 ( $\pm 0.80$ )	-0.05 ( $\pm 1.01$ )
Leadership style of preceptor	5.86 ( $\pm 1.22$ )	5.97 ( $\pm 1.02$ )	-0.11 ( $\pm 1.15$ )
Leadership of preceptor to nursing care	5.87 ( $\pm 1.25$ )	5.84 ( $\pm 1.10$ )	0.03 ( $\pm 1.19$ )
Preceptors' supervisory relationship	5.63 ( $\pm 1.65$ )	5.86 ( $\pm 1.18$ )	-0.23 ( $\pm 1.57$ )
Preceptor as enabling the integration of theory and practice	5.75 ( $\pm 1.40$ )	5.60 ( $\pm 1.40$ )	0.15 ( $\pm 1.07$ )

Cooperation between placement staff and preceptor	5.55 ( $\pm 1.80$ )	5.77 ( $\pm 1.32$ )	-0.22 ( $\pm 1.67$ )
Relationship among student and preceptor	5.61 ( $\pm 1.58$ )	5.56 ( $\pm 1.53$ )	0.05 ( $\pm 1.62$ )
Achievement of vocational Training objectives	5.77 ( $\pm 0.77$ )	5.85 ( $\pm 1.00$ )	-0.08 ( $\pm 0.74$ )

Source: Students satisfaction survey data, 2023

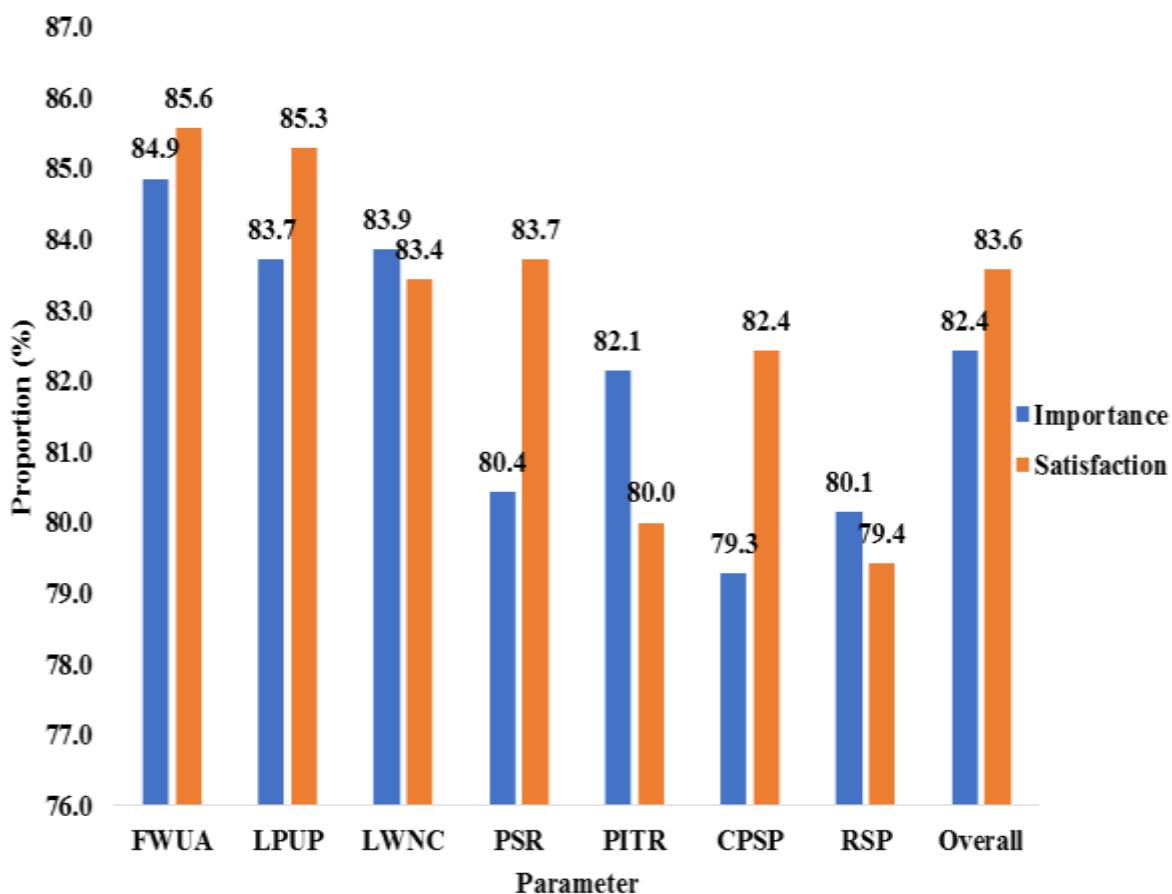


Figure 1: Comparison of students' ratings of importance and satisfaction

#### Key

\*FWUA= Facility/Ward/Unit Atmosphere

\*LPUP= Leadership style of Preceptor/Nurse Manager/Unit Supervisor

\*LWNC= Leadership of the Preceptor/Ward Manager/Unit Supervisor to nursing care

\*PSR= Preceptor's supervisory relationships

\*PITR= Preceptor as enabling the integration of theory and practice

\*CPSP= Cooperation between placement staff and preceptor

\*RSP= Relationship among student and preceptor

From Table 2, the results show that out of the seven vocational training environment success factors rated by students, the following four factors recorded negative performance gap: facility/ward atmosphere (-0.05), leadership style of preceptor (-0.11), preceptors' supervisory relationship (-0.23) and cooperation between placement staff and preceptor (-0.22).

From the results, it is evident that students' satisfaction with the above four factors exceeded their level of expectation. Furthermore, students rating of achievement of the vocational training objectives recorded negative performance gap of (-0.08) indicating that their level of satisfaction

exceeded their level of expectation. In contrast, the role of the preceptor in the development of nursing care is (0.03), the position of the preceptor as allowing theory and practice to be integrated into practice is 0.15, and the relationship between the student and the preceptor is (0.05). Though the performance gaps were less than 1 and were within acceptable limit, students' level of satisfaction were lower than their expectations hence, the vocational training stakeholders need to pay more attention to these factors in order to increase students' level of satisfaction.

From Figure 1, the results show that facility/ward atmosphere recorded the

highest satisfaction rating (85.6%) whereas cooperation between placement staff and preceptor received the lowest satisfaction rating of (79.3%) followed by relationship among student and preceptor (79.4%).

The result indicates the need to improve on cooperation between placement staff and preceptors as well as relationship among student and preceptor.



**Figure 2: Overall students' rating of importance and satisfaction of vocational training environment**

The Figure 2 shows that student's overall satisfaction (83.6%) exceeded their overall

expectations (82.4%) with a margin of (1.2%).

**Table 3: Vocational training learning environment experiences**

All Instrument Item	Importance	Satisfaction	Performance Gap
<b>Ward Atmosphere</b>			
1. It was easy to approach preceptors	6.017	6.023	-0.01
2. At the beginning of my shift, I felt at ease walking into the ward	6.017	6.105	-0.09
3. I was comfortable participating in the discussions during staff meetings	5.727	5.738	-0.01
4. There was a good vibe in the ward/unit	6.006	6.099	-0.09
5. Overall, the preceptors were very concerned about the supervision of students.	6.000	6.000	0.00
6. Preceptors refer to the student by their name	6.110	6.064	0.05
7. The ward/unit provide enough opportunities for meaningful learning	5.895	6.000	-0.10
8. The learning experiences were rich and varied in terms of content	5.802	5.936	-0.13
9. The ward serves as good learning environment	5.919	6.134	-0.22
<b>Leadership style of the Preceptor</b>			
10. The Preceptor viewed the employees in his or her department as a valuable asset.	5.849	5.977	-0.128
11. The Preceptor was part of the team	5.791	6.076	-0.285
12. The Preceptor feedback could very well be seen as a learning tool.	5.977	5.919	0.058
13. The dedication and hard work of individual staff members were valued	5.837	5.907	-0.070
<b>Leadership of the Preceptor to nursing care</b>			
14. The nursing procedure protocol for the ward was clearly defined	5.802	5.756	0.047
15. Preceptors treat patients professionally	6.012	5.942	0.070
16. There were no disruptions to the flow of data related to patient care	5.808	5.756	0.052
17. There was a clear record of nursing (nursing plans, daily nursing records, etc.)	5.872	5.924	-0.052
<b>Supervisory relationship</b>			
18. My supervisor's attitude toward supervision was very positive	5.669	5.988	-0.320

19. The preceptors give me individual attention	5.785	5.878	-0.093
20. I got feedback all the time from my preceptor	5.535	5.750	-0.215
21. Overall, I am very happy with the training I received from my preceptor.	5.581	5.878	-0.297
22. The relationship of equality was the foundation of the supervision and supported my vocational training.	5.674	5.907	-0.233
23. In the supervisory relationship, there was mutual Interaction	5.576	5.872	-0.297
24. The mutual respect and approval was the foundation of the supervisory relationship	5.657	5.744	-0.087
25. Trust was at the core of the supervisory relationship	5.523	5.843	-0.320
<b>Role of Preceptor</b>			
<b>Preceptor as enabling the integration of theory and practice</b>			
26. I believe the preceptor was able to combine theoretical knowledge with practical nursing practice.	5.756	5.564	0.192
27. The preceptor successfully implemented the objectives of this traineeship.	5.779	5.645	0.134
28. I was able to close the gap between theory and practice through the help of the preceptor.	5.727	5.587	0.140
<b>Cooperation between placement staff and preceptor</b>			
29. The preceptor was a team player	5.471	5.733	-0.262
30. The preceptor was able share his/her expertise	5.494	5.721	-0.227
31. My learning was supported and encouraged by the preceptor and his team	5.535	5.866	-0.331
<b>Relationship among student, preceptor / nurse teacher</b>			
32. Meeting with my preceptor was a pleasant experience	5.645	5.587	0.058
33. I felt like we were colleagues at our meetings.	5.564	5.483	0.081
34. Mostly our meetings concentrated on my learning needs	5.634	5.610	0.023

Cronbach's alpha = 0.9677

**Table 4: Correlation between importance and satisfaction of vocational training environment experiences**

Vocational Training issues	FWUA	LPUP	LWNC	PSR	PITR	CSPS	RSP	Total Satisfaction
<b>FWUA</b>	0.43*	0.29*	0.21*	0.25*	0.15*	0.17	0.39*	0.69*
<b>LPUP</b>	0.32*	0.49*	0.45*	0.38*	0.41*	0.36	0.38	0.56
<b>LWNC</b>	0.21*	0.42*	0.498	0.24*	0.35*	0.38*	0.21*	0.44*
<b>PSR</b>	0.17*	0.37*	0.27*	0.42*	0.45*	0.42*	0.35*	0.49*
<b>PITR</b>	0.22*	0.49*	0.37*	0.46*	0.71*	0.62*	0.53*	0.66*
<b>CSPS</b>	0.14	0.32*	0.19*	0.37*	0.43*	0.46*	0.55*	0.49*
<b>RSP</b>	0.25*	0.35*	0.19*	0.48*	0.45*	0.43*	0.46*	0.54*
<b>Total Importance</b>	0.35*	0.51*	0.40*	0.52*	0.57*	0.52*	0.49*	0.67*

Source: Field data, 2023

Aside comparing CSPS importance and FWUA satisfaction, LWNC importance and LWNC satisfaction, FWUA importance and CSPS satisfaction and LPUP importance and LPUP satisfaction, there were significant and positive correlations between the other parameters under consideration as shown in Table 4 above.

### Association between Importance and Satisfaction Scores of Vocational Training

Statistically significant difference between importance/expected and satisfaction scores using the above-mentioned parameters was

determined using the Wilcoxon sign rank test. A total of 172 respondents were used in the analysis. The test showed a significant

difference in the importance of LWNC and satisfaction scores ( $p=0.0145$ ), PITR importance and satisfaction scores ( $p=0.0219$ ) as presented in Table 5 below:

**Table 5: Comparison of importance and satisfaction scores of vocational training experiences**

Variable	Median	Interquartile Range	Mean	Standard Deviation	95% CI	p-value
FWUA_Importance	6	5.9-6.6	5.94	1.04	5.79-6.10	0.5624
FWUA_Satisfaction	6	6.0-7.0	5.99	0.80	5.87-6.11	
LPUP_Importance	6	5.8-6.5	5.86	1.22	5.68-6.04	0.4516
LPUP_Satisfaction	6	5.3-6.5	5.96	1.02	5.81-6.12	
LWNC_Importance	6	6.0-6.8	5.87	1.25	5.68-6.06	0.0145*
LWNC_Satisfaction	6	5.8-6.5	5.84	1.10	5.68-6.01	
PSR_Importance	6	5.3-6.9	5.63	1.65	5.38-5.87	0.4421
PSR_Satisfaction	6	5.6-6.8	5.86	1.17	5.68-6.03	
PITR_Importance	6	5.8-6.7	5.75	1.40	5.55-5.96	0.0014*
PITR_Satisfaction	6	5.3-6.3	5.60	1.40	5.39-5.81	
CPSS_Importance	6	5.2-6.7	5.50	1.80	5.23-5.77	0.5773
CPSS_Satisfaction	6	6-6.5	5.78	1.32	5.57-5.97	
RSP_Importance	6	5.3-6.7	5.61	1.58	5.38-5.85	0.0219*
RSP_Satisfaction	6	5.7-6.3	5.56	1.53	5.33-5.79	
Total_Importance	6	5.5-6.4	5.77	1.00	5.62-5.92	0.6858
Total_Satisfaction	6	5.6-6.3	5.85	0.77	5.74-5.97	

Source: Field data, 2023

## DISCUSSION

In this study, sandwich nursing and midwifery students were asked questions about their expectations and satisfaction with the role and placement environments of their preceptors. The purpose of the study was to identify performance gaps with regard to implementation of vocational programme at the University of Health and Allied Sciences.

The primary finding was that students were most satisfied with the facility/ward atmosphere. Students' satisfaction exceeded their expectations in terms of how easy it was to approach preceptors, how comfortable they felt going to the ward / unit at the beginning of their shift, and how comfortable they felt participating in discussions during staff meetings.

They also reported a positive atmosphere in the ward/unit, sufficient meaningful learning opportunities within the unit, and experience of multidimensional learning environments in terms of content. Therefore, they considered the vocational training facilities to be good learning environments. This is in contrast to the findings of Walsh (2020), where nursing students rated the ward atmosphere as the lowest in terms of their satisfaction.

Another interesting finding is that the leadership style of the preceptor, the supervisory relationship between the preceptor and the placement staff, the collaboration between the placement staff and the preceptor, and the achievement of the vocational training objectives were higher than expected, showing the strengths of the study university and the training facilities.

The study aligns with previous research indicating that a favorable ward atmosphere, effective leadership from the ward manager, and effective supervisory relationships among preceptors significantly influence successful skills acquisition (Habimana & Tuyizere, 2016; Tomietto, Comparsini, Saarikoski & Simonetti, 2014).

The facility/ward atmosphere was rated as the highest by nursing students, followed by the ward-manager's leadership style. Students considered the nurse manager to be the most important resource to help them during training. The relationship between the student and the preceptor was rated as least satisfactory by students, followed by preceptor's ability to integrate theory and practice. Overall satisfaction was higher than expected. This indicates institutional strength that the university studied and the various training facilities need to sustain.

## CONCLUSION

This study found that student satisfaction with the supervision relationship, the preceptor's leadership style and the ward atmosphere were higher than expected and reflected institutional strength. Although there was no performance gap of 1 or higher, the results showed that students are less satisfied with the following areas where improvement is needed: In a ward environment, the preceptor should be more concerned with student supervision and should learn to refer to students by their first name. In terms of the leadership style, students were less happy with how the preceptor views their feedback as a learning tool.

The study highlights the need for the preceptor to integrate theoretical knowledge and practice, operationalise vocational training learning objectives, and help students close the theoretical-practice gap. The study indicates a need for improvement in the relationship between students, preceptors, and nurse teachers, focusing on creating a comfortable and collaborative environment.

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