

# From Classroom to Clinical: Unveiling Nursing Students' Learning Experiences in Training

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## ABSTRACT

The transition from classroom-based learning to clinical training is a critical phase in nursing education, requiring students to apply theoretical knowledge in real-world clinical settings. Objective: This study aims to assess nursing students' satisfaction with their clinical learning environment using the Clinical Learning Environment, Supervision, and Nurse Teacher (CLES+T) framework. Methods: A quantitative cross-sectional study was conducted among 291 diploma nursing students (Semester 2 to 6) at a Malaysian nursing institution. A universal sampling method was employed. Data were collected via an online survey using the CLES+T questionnaire (34 items, 5-point Likert scale). Statistical analysis, including descriptive analysis was performed using SPSS Version 27. Results: Most participants were from Semester 3 (45.7%), predominantly female (79.4%), with a mean age of 22.66 years (SD = 1.86). High satisfaction was reported across all CLES+T subscales, particularly for the role of nurse educators (95.9%, mean = 4.61), supervisory relationships (94.2%, mean = 4.57), and ward managers' leadership (94.8%, mean = 4.58). The pedagogical atmosphere had the highest dissatisfaction rate (7.2%). Conclusion: Nursing students generally expressed high satisfaction with their clinical learning environment, emphasizing the importance of structured supervision, leadership, and nurse educators' roles. However, improvements are needed in pedagogical climate and clinical communication to further enhance the learning experience.

**Keywords:** Nursing students, CLES+T, Student satisfaction, Clinical training

## INTRODUCTION

The transition from classroom-based theoretical learning to clinical training represents a critical phase in nursing education, where students begin applying theoretical knowledge to real-world clinical settings [1]. The effectiveness of this learning experience is influenced by multiple factors, including the quality of supervisory relationships, the pedagogical atmosphere in the ward, the role of nurse educators, the leadership style of ward managers, and the structure of nursing care within the clinical environment [2], [3]. A comprehensive understanding of these factors is essential to ensuring that nursing students receive an effective and satisfying clinical learning experience.

Clinical training serves as more than just an application of theoretical knowledge; it is a platform where students develop professional competence, build confidence, and enhance clinical decision-making skills in real-life scenarios [4], [5]. However, the success of this transition largely depends on the level of support and supervision provided by experienced nurses and clinical instructors. Research indicates that structured and high-quality supervision enhances students' competence and reduces stress, whereas a lack of adequate guidance contributes to dissatisfaction and anxiety [5], [6]. Additionally, a positive clinical learning environment has been linked to improved student motivation, performance, and overall satisfaction with clinical training [7], [8].

In the context of supervisory relationships, the quality of interaction between students and their supervisors plays a pivotal role in shaping an effective learning process [6]. Supervisors who are approachable, provide consistent feedback, and foster a supportive learning environment contribute significantly to students' understanding and clinical competency [9]. Furthermore, the pedagogical atmosphere in the ward is a key determinant of students'

satisfaction levels. If the clinical setting fails to support student learning, it can lead to increased stress and hinder students from achieving their learning objectives [10].

Beyond supervision and ward atmosphere, the role of nurse educators is a crucial factor influencing students' clinical learning experiences [11], [12]. As bridges between theory and practice, nurse educators assist students in understanding complex nursing concepts within real-world clinical contexts, while also providing academic and moral support throughout training. Research has highlighted that active engagement of nurse educators during clinical sessions significantly enhances student comprehension and satisfaction with clinical training [13], [14].

The leadership style of ward managers also influences students' satisfaction with the clinical learning environment [10]. Ward managers who demonstrate supportive leadership foster a positive work environment, which in turn enhances students' motivation to learn and apply nursing skills in real-world settings [15]. Conversely, ineffective leadership styles can contribute to dissatisfaction among students and negatively impact their clinical learning experiences [16].

Although previous studies indicate that most nursing students express satisfaction with their clinical learning experiences [13], [17], a subset of students report dissatisfaction, particularly regarding the pedagogical atmosphere and clinical leadership [18]. This underscores the need for a systematic assessment of the factors contributing to both satisfaction and dissatisfaction, enabling targeted improvements to be implemented within clinical training programs.

Therefore, this study aims to explore nursing students' clinical learning experiences and assess their satisfaction levels across key dimensions of the CLES+T model. Using a quantitative cross-sectional study design, this research will evaluate the extent to which nursing students are satisfied with their clinical training experiences while identifying factors that contribute to both satisfaction and dissatisfaction. The findings will provide valuable insights for nursing institutions, clinical supervisors, and healthcare facilities, aiding in the development of more effective strategies to optimize students' clinical learning environments.

## METHODOLOGY

### Study Design

This study employs a quantitative cross-sectional research design to assess nursing students' satisfaction with the clinical learning environment using the Clinical Learning Environment, Supervision, and Nurse Teacher (CLES+T) framework. The cross-sectional approach allows for the collection of data at a single point in time, providing an overview of students' perceptions regarding their clinical training experiences.

### Study Population

A universal sampling approach was employed, involving all eligible diploma nursing students from Semester 2 to Semester 6 at a nursing institution in Malaysia. This approach ensured a comprehensive representation of students across different academic levels and clinical exposure, thereby reducing selection bias and enhancing the generalizability of findings. Students in Semester 1 were excluded as they had not yet commenced their clinical training. Additionally, students on leave, those who had withdrawn, or those who declined participation were also excluded from the study.

### Data Collection

Data were collected over one month (February 2025) using an online survey distributed via Google Forms, utilizing the CLES+T questionnaire, originally developed by Saarikoski et al.[19], with the Malay version adapted from Karim et al. [20]. Permission for its use was obtained via email, and the instrument has been widely validated for assessing nursing students' perceptions of their clinical learning environment [11], [20], [21]. The questionnaire consists of 34 items categorized into five key dimensions and is rated on a 5-point Likert scale

ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with total scores ranging from 34 to 170, where higher scores indicate greater satisfaction, while lower scores reflect dissatisfaction.

## Data Analysis

Data were analysed using SPSS Version 27, incorporating both descriptive and inferential statistics. Descriptive analysis was used to summarize demographic characteristics and mean scores for each CLES+T subscale. To determine differences in satisfaction levels among students, a one-way Analysis of Variance (ANOVA) was conducted to compare mean scores across different academic semesters and clinical placement settings. Additionally, Pearson's correlation analysis was employed to examine the relationships between CLES+T subscales and overall satisfaction levels. A p-value of  $<0.05$  was considered statistically significant. For interpretation, satisfaction levels were categorized as low if the mean score was below 3.5, and high if the mean score was 3.5 or above. A pilot study was not conducted, as previous research in Malaysia reported a Cronbach's Alpha value of 0.83 to 0.98, indicating high reliability of the CLES+T instrument within this population [20].

## Ethical Considerations

This study adhered to ethical research guidelines established by the Ministry of Health Malaysia and obtained approval from the Medical Research and Ethics Committee (MREC) under NMRR ID-24-04102-UZS. Prior to participation, students were provided with a detailed explanation of the study's purpose, procedures, potential risks, and benefits. Informed consent was obtained to ensure voluntary participation. Confidentiality and anonymity were maintained by de-identifying all responses, and data were used exclusively for research purposes. Participants retained the right to withdraw from the study at any stage without academic consequences. The study complied with the Declaration of Helsinki and institutional ethical protocols, ensuring the protection of participants' rights and well-being.

## RESULTS

### Socio-Demographic Characteristics of Respondents

Table 1 shows the sociodemographic background of the 291 diploma nursing students in this study. Most respondents were from Semester 3 (45.7%), with a higher proportion of female students (79.4%) compared to males. The mean age was 22.66 years ( $SD = 1.86$ ), and students had an average of 17.38 weeks ( $SD = 13.77$ ) of clinical training experience. In terms of transportation mode, most students walked to their clinical placements (55.7%). These findings provide a comprehensive overview of the student population involved in this study.

Table 1: Sociodemographic Background (N=291)

Demographic characteristics	n	%
<b>Semester</b>		
Semester 2	56	19.2
Semester 3	133	45.7
Semester 4	34	11.7
Semester 5	36	12.4
Semester 6	32	11.0
<b>Gender</b>		
Male	60	20.6

Female	231	79.4
<b>Age (years)</b>		
Min-max: 20-32	*22.66	**1.86
<b>Clinical Training Experience (weeks)</b>		
Min-max: 2-42	*17.38	**13.77
<b>Mode of Transportation</b>		
Walking	162	55.7
College Bus	129	44.3

Notes: \*Mean; \*\*SD

### Level of Clinical Learning Environment, Supervision, and Nurse Teacher (CLES+T)

Table 2 shows the distribution of satisfaction levels regarding the Clinical Learning Environment, Supervision, and Nurse Teacher (CLES+T) framework among the study participants (n = 291). Most students reported high satisfaction across all subscales, with the Role of the Nurse Teacher having the highest satisfaction level (95.9%), followed by Supervisor Relationships (94.2%) and Leadership of the Ward Manager (94.8%). Similarly, Premises of Nursing on the Ward (94.5%) and Pedagogical Atmosphere (92.8%) also showed high satisfaction among students. Overall, 94.2% of students expressed high satisfaction with the clinical learning environment, indicating a positive perception of supervision, leadership, and educational support during their Clinical Training.

Table 2 Level of Clinical Learning Environment, Supervision, and Nurse Teacher (n=291)

Subscale	Mean (SD)	Low satisfaction		High satisfaction	
		n	%	n	%
Supervisor Relationships	4.57 (0.70)	17	5.8	274	94.2
Pedagogical atmosphere	4.51 (0.70)	21	7.2	270	92.8
Role Nurse Teacher	4.61 (0.63)	12	4.1	279	95.9
Leadership Wad Manager	4.58 (0.68)	15	5.2	276	94.8
Premises Nursing Ward	4.56 (0.68)	16	5.5	275	94.5
Level of CLES+T	4.56 (0.65)	17	5.8	274	94.2

Notes: Low satisfaction: Skor min < 3.5: High satisfaction: Skor min ≥ 3.54

## DISCUSSION

The findings of this study provide a comprehensive overview of nursing students' satisfaction with their clinical learning environment, particularly in terms of supervisory relationships, pedagogical atmosphere, the role of nurse educators, ward managers' leadership, and the organization of nursing practices within clinical settings. Overall, the high satisfaction levels across all CLES+T subscales indicate that students generally have a positive

perception of their clinical training experiences. Additionally, these findings demonstrate higher satisfaction rates compared to studies conducted in Pakistan [17], China [18], and Palestine [16]. Notably, this study also reports higher satisfaction levels than previous research conducted in Malaysia, which examined 93 nursing students [20]. However, variations in satisfaction levels remain, highlighting specific areas that require attention to enhance students' transition from classroom-based learning to more effective clinical training.

In terms of supervisory relationships, 94.2% of students, with a mean score of 4.57, reported high satisfaction, making it a significant factor in shaping clinical learning experiences. These findings align with previous research Ekstedt et al. [22], which suggests that students with positive supervisory experiences are more likely to perceive stronger collaboration between students, preceptors, and nurse educators, as well as a more structured clinical supervision model. Furthermore, this study's findings are consistent with research conducted in Nepal [23] and the United States [24], reinforcing the importance of effective supervision in optimizing students' learning outcomes.

These results align with previous studies emphasizing that high-quality supervisory relationships play a crucial role in enhancing students' confidence and clinical competence [6]. Effective supervision has been linked to greater student engagement, reduced stress, and improved clinical skills, contributing to a more meaningful learning experience [9], [25]. Conversely, insufficient supervision can lead to increased stress and dissatisfaction, particularly among students in earlier semesters who require more structured guidance [7]. Therefore, continuous efforts should focus on strengthening structured and effective supervision in clinical training, ensuring that students maximize their learning opportunities and develop their professional competencies more effectively.

Similarly, the pedagogical atmosphere within the ward plays a crucial role in shaping students' perceptions of their clinical training. This study found that 92.8% of students, with a mean score of 4.51, reported high satisfaction with their clinical learning environment. A supportive pedagogical atmosphere, characterized by teamwork among nurses, effective communication, and a conducive work environment, has been shown to enhance students' motivation and clinical decision-making skills [10]. These findings surpass those of studies conducted in the Czech Republic, where mean scores ranged from 3.89 (first-year students) to 4.21 (final-year students) [8], as well as a study of 225 nursing and midwifery students in Ghana, which reported a mean score of 3.29 [21]. However, 7.2% of students reported low satisfaction, which may stem from a lack of learning opportunities, negative interactions with clinical staff, or a work environment that does not fully support student learning. Therefore, efforts to improve clinical staff-student interactions and establish a more inclusive learning environment should be considered to enhance the overall clinical learning experience.

The highest-rated subscale in this study was the role of the nurse educator, with 95.9% of students, and a mean score of 4.61, reporting high satisfaction. These findings reinforce the critical role of nurse educators in bridging the gap between theory and clinical practice [22]. In addition to facilitating knowledge transfer, nurse educators also provide academic and emotional support, which is particularly important in helping students adapt to the clinical environment [12]. This study reports higher satisfaction levels than those found in a study conducted in Pakistan with 342 nursing students, which had a mean score of 3.06 [17], and another study involving 823 final-year nursing students in Finland, Germany, Iceland, Ireland, Lithuania, and Spain, which reported a mean score of 3.90 [26]. The high level of satisfaction in this domain suggests that students perceive nurse educators as competent and accessible mentors, which aligns with previous research emphasizing the importance of active engagement of nurse educators in clinical training [14]. However, previous studies have also highlighted that uncertainty regarding the role of nurse educators in some clinical placements may negatively impact students' learning experiences. Therefore, standardized and structured teaching strategies should be strengthened to ensure consistency and clarity in the role of nurse educators across different clinical placements [11].

The leadership style of the ward manager was also found to be a key contributor to student satisfaction, with 94.8% of students, and a mean score of 4.58, reporting high satisfaction. This study reports higher satisfaction levels compared to a study involving 308 undergraduate nursing students in Palestine [16]. Effective leadership fosters a structured and supportive work environment, allowing students to engage in meaningful learning experiences, interact with clinical staff, and develop professional confidence [10], [15]. Conversely, ineffective leadership can create a disorganized work environment, reduce learning opportunities, and increase stress among



students [3], [16]. Therefore, ongoing leadership training for ward managers may further enhance their role in supporting nursing students during clinical training.

Finally, the organization of nursing practices within the ward also received high satisfaction ratings, with 94.5% of students, and a mean score of 4.56, reporting positive perceptions. This study reports higher satisfaction levels compared to a study involving 131 third- and fourth-year nursing students in Vietnam, which reported a mean score of 4.18 [27], as well as a study conducted in India involving 220 Degree Nursing and 30 master Nursing students, which recorded mean scores ranging from 2.33 to 3.84 [28]. These findings suggest that most students perceive ward documentation systems, patient care protocols, and workflow processes as well-structured, thereby facilitating their learning experiences [18]. However, some students who reported lower satisfaction levels may have encountered challenges such as high patient loads, inadequate staffing, or unclear workflow processes, which could hinder their ability to fully engage in learning activities. Therefore, efforts to enhance clinical policies and strengthen collaboration between academic faculties and hospital management could further optimize students' clinical learning experiences.

### **Implications for Nursing Education and Clinical Training**

The findings of this study highlight key implications for nursing education and clinical training, emphasizing the need for structured supervision, an improved pedagogical climate, enhanced leadership, and strengthened nurse educator roles. High satisfaction with supervisory relationships (94.2%) suggests the importance of structured mentorship programs, while dissatisfaction with the pedagogical atmosphere (7.2%) indicates a need for better communication and active learning environments. The crucial role of nurse educators (95.9%) reinforces the importance of faculty presence and engagement in clinical settings, while ward managers' leadership (94.8%) suggests that effective leadership fosters a positive learning environment. Additionally, ensuring organized nursing care (94.5%) can further enhance student learning by optimizing workload distribution and task delegation. Institutions should incorporate structured clinical learning frameworks, leadership training, and feedback mechanisms to continuously improve clinical education and student experiences, ultimately contributing to higher-quality nursing training and patient care.

### **CONCLUSION**

This study provides valuable insights into nursing students' satisfaction with their clinical learning environment, revealing high satisfaction levels across all CLES+T subscales, particularly for the role of nurse educators (95.9%), supervisory relationships (94.2%), and leadership of ward managers (94.8%). However, 7.2% of students expressed dissatisfaction with the pedagogical atmosphere, indicating a need for improvements in clinical communication and student engagement. Despite its strengths, this study has several limitations, including its cross-sectional design, which only captures data at one point in time and may not reflect changes in students' experiences over time. Additionally, the study was conducted at a single institution, limiting the generalizability of the findings to other nursing programs. To enhance nursing education and clinical training, institutions should implement structured mentorship programs, strengthen faculty engagement in clinical settings, and provide leadership training for ward managers to create a more supportive learning environment. Additionally, efforts should focus on enhancing the pedagogical climate, ensuring that clinical placements offer engaging and inclusive learning experiences. Future research should explore longitudinal studies to track changes in student satisfaction across different clinical placements. Additionally, comparative studies across multiple nursing institutions could provide a broader perspective on the effectiveness of clinical learning environments. Further investigation into the impact of different supervisory styles and leadership approaches on student learning outcomes would also be beneficial in refining best practices in clinical nursing education.

### **Conflict of Interest**

The authors declare no conflict of interest related to this study.

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