

## PERCEPTIONS OF NURSING STUDENTS TOWARD THE CLINICAL LEARNING ENVIRONMENT: A CORRELATIONAL ANALYSIS

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### Abstract

**Background:** The clinical learning environment (CLE) plays a pivotal role in shaping nursing students' learning, perception, and satisfaction. Supervision and practicum-related factors are often key determinants of students' overall experiences.

**Materials and Methods:** A cross-sectional descriptive design was employed. A convenient sample of 220 female nursing students was recruited from the Al-Aleem Institute of Nursing, Lahore. Data were collected using the Clinical Learning Environment, Supervision + Nurse Teacher (CLES+T) scale. Hierarchical multiple regression was applied, with demographic factors entered first, followed by practicum and supervision factors.

**Results:** Nursing students reported moderate overall perception ( $M = 3.56$ ,  $SD = 0.78$ ) and satisfaction ( $M = 3.56$ ,  $SD = 1.12$ ) with the clinical learning environment, with the highest ratings for ward leadership ( $M = 4.00$ ,  $SD = 0.89$ ) and lowest for supervisory relationships ( $M = 3.33$ ,  $SD = 1.16$ ). Hierarchical regression showed that supervision intensity ( $\beta = .27$ ,  $p < .001$ ) and frequency ( $\beta = .22$ ,  $p < .001$ ) were the strongest positive predictors of both perception and satisfaction, while longer practicum duration and higher year of study were significant negative predictors.

**Conclusion:** Enhancing supervision quality during clinical placements can significantly improve nursing students' perception and satisfaction with their CLE.

### INTRODUCTION

The clinical learning environment (CLE) is widely recognized as a critical component of nursing education, shaping students' professional identity, competence, and transition into clinical practice. Previous reviews have highlighted that students' perceptions of practice environments strongly influence their learning outcomes and satisfaction (Henderson et al., 2012). Positive experiences in the CLE promote confidence and professional growth, while negative encounters may hinder skill acquisition and long-term career engagement (Moonaghi et al.,

2015). Hence, understanding students' perceptions of the CLE is essential for improving nursing education and preparing competent graduates.

Efforts to evaluate and measure the CLE have led to the development of several tools, such as the Clinical Learning Environment Scale (Dunn & Burnett, 1995) and the Clinical Learning Environment Inventory (Newton et al., 2010). These instruments provide structured insight into dimensions such as leadership, supervision, and pedagogical atmosphere. Studies consistently reveal that factors like ward culture, staff

support, and supervision strategies play pivotal roles in shaping students' experiences (Papp et al., 2003). However, challenges such as workload, role conflict, and lack of supportive supervision remain persistent barriers across different settings (Rahmati Sharghi et al., 2015).

The significance of the CLE extends beyond student satisfaction to broader implications for nursing education quality and workforce development. Integrating evidence-based practices and implementation science into clinical training offers opportunities to strengthen learning outcomes and bridge theory-practice gaps (Boehm et al., 2020). A correlational analysis of students' perceptions provides valuable insights into the interplay between supervisory practices, institutional support, and students' overall satisfaction. Such research not only informs curriculum development but also guides nurse educators and clinical managers in fostering more effective learning environments that ensure professional readiness.

## 1. Materials and Methods

### 1.1 Design

A cross-sectional descriptive correlational design was employed to explore nursing students' perceptions and satisfaction with the clinical learning environment (CLE).

### 1.2 Study Setting and Participants

The study was conducted at the Al-Aleem Institute of Nursing, Lahore. Participants were second, third and fourth-year nursing students with prior clinical placement experience.

### 1.3 Sample Size and Sampling

Using G\*Power 3.1.9.2, a sample size of 220 was calculated with a significance level of 0.05, small effect size (0.25), and 80% power. A convenient sampling method was applied, and 220 students completed the study.

### 1.4 Inclusion and Exclusion Criteria

Inclusion criteria were second, third and fourth-year students who had at least one clinical placement. Exclusion criteria included first-year students (due to limited clinical exposure) and those enrolled in specialized programs such as

midwifery, pediatrics, anesthesia, or ophthalmic nursing.

### 1.5 Data Collection

Data were collected between October and December 2024. A self-administered questionnaire was distributed after explaining the study purpose. Written informed consent was obtained, and participants submitted their responses in sealed envelopes to ensure confidentiality.

### 1.6 Instruments

Data were collected using two tools:

- CLES+T Evaluation Scale (Saarikoski, 2008), consisting of 34 items across five sub-dimensions: pedagogical atmosphere, supervisory relationships, leadership style of ward managers, premises of nursing, and role of the nurse teacher. Responses were measured on a five-point Likert scale. Reliability was high (Cronbach's  $\alpha = 0.94$ ).
- Satisfaction Scale: Three items adapted from Antohe's study measured satisfaction with CLE (scored 1–5, higher scores denoting greater satisfaction).
- Practicum factors (place, duration, number of placements) and supervision factors (intensity and frequency of supervision) were also assessed. Sociodemographic data included age, gender, and type of nursing program.

### 1.7 Data Analysis

Data were analyzed using SPSS version 24. Descriptive statistics summarized demographic data. Independent t-tests and ANOVA assessed group differences. Hierarchical multiple regression was performed to determine predictors of perception and satisfaction, with changes in adjusted  $R^2$  used to evaluate contributions of practicum and supervision factors. Variance inflation factor (VIF) was calculated to check multicollinearity.

### 1.8 Ethical Considerations

Participation was voluntary, informed consent

was secured, and anonymity and confidentiality were ensured. Data were used solely for academic purposes.

## 2. Results

**Table 1. Characteristics of Nursing Students (N = 220)**

Characteristic	N / Mean	% / SD
<b>Demographic Factors</b>		
Age (years)	24.14	4.89
Year of Education		
- 2nd Year	120	54.5
- 3rd Year	60	27.3
- 4th Year	40	18.2
<b>Supervision Factors</b>		
Intensity of Supervision	1.90	0.48
Frequency of Supervision	1.36	1.95

The study included a total of 220 nursing students with a mean age of 24.14 years (SD = 4.89). The majority were enrolled in the second year (54.5%), followed by the third year (27.3%) and the fourth year (18.2%) of their nursing education. Regarding supervision-related variables, the mean intensity of supervision was 1.90 (SD = 0.48), indicating moderate supervisory support, while the mean frequency

of supervision was 1.36 (SD = 1.95), reflecting relatively fewer unscheduled supervisory visits. These characteristics provide a demographic and academic profile of the study participants, serving as a basis for analyzing their perceptions of and satisfaction with the clinical learning environment.

**Table 2. Nursing Students' Perception and Satisfaction with the Clinical Learning Environment (N = 220)**

Variable	Mean $\pm$ SD
<b>Overall Perception</b>	3.56 $\pm$ 0.78
Pedagogical Atmosphere	3.68 $\pm$ 0.82
Leadership Style of Ward Manager	4.00 $\pm$ 0.89
Nursing Care on the Ward	3.53 $\pm$ 1.06
Supervisor Relationship	3.33 $\pm$ 1.16
Role of Nurse Teacher	3.45 $\pm$ 1.08
<b>Overall Satisfaction</b>	3.56 $\pm$ 1.12
Ward as a Good Learning Environment	4.03 $\pm$ 1.25
Satisfaction with Supervision Received	3.13 $\pm$ 1.50
Satisfaction with Recent Clinical Placement	3.54 $\pm$ 1.50

The overall perception of the clinical learning environment among nursing students was moderate (M = 3.56, SD = 0.78). Among the sub-dimensions, the leadership style of the ward manager received the highest mean score (M =

4.00, SD = 0.89), followed by the pedagogical atmosphere (M = 3.68, SD = 0.82). The lowest mean score was observed in the supervisor relationship dimension (M = 3.33, SD = 1.16). Students' overall satisfaction with their CLE was also moderate (M = 3.56, SD = 1.12). They rated the ward as a good learning environment highest (M = 4.03, SD

= 1.25), while satisfaction with supervision received was lowest ( $M = 3.13$ ,  $SD = 1.50$ ). Satisfaction with the recent clinical

placement was reported at a moderate level ( $M = 3.54$ ,  $SD = 1.50$ ).

**Table 3. Pearson Correlation Coefficients between Perception, Satisfaction, and Study Factors (N = 220)**

Variables	Age	Duration of Practicum	No. of Clinical Placements	Intensity of Supervision	Frequency of Supervision	Perception	Satisfaction
Age	1						
Duration of Practicum	.21*	1					
No. of Clinical Placements	.12	-.19*	1				
Intensity of Supervision	.05	.16*	-.11	1			
Frequency of Supervision	.14*	.22*	-.08	.26**	1		
Perception	.13	.20*	-.28**	.31**	.29**	1	
Satisfaction	.16*	.25**	-.24**	.35**	.33**	.72**	1

The analysis revealed that perception of the clinical learning environment was positively correlated with intensity of supervision ( $r = .31$ ,  $p < .01$ ) and frequency of supervision ( $r = .29$ ,  $p < .01$ ), while showing a negative correlation with the number of clinical placements ( $r = -.28$ ,  $p < .01$ ). Similarly, satisfaction was positively associated with intensity of supervision ( $r = .35$ ,  $p < .01$ ), frequency of

supervision ( $r = .33$ ,  $p < .01$ ), and duration of practicum ( $r = .25$ ,  $p < .01$ ), but negatively correlated with the number of clinical placements ( $r = -.24$ ,  $p < .01$ ). A strong positive correlation was found between perception and satisfaction ( $r = .72$ ,  $p < .01$ ), indicating that students who perceived their clinical environment more positively also reported higher satisfaction with their clinical learning experience.

**Table 4. Summary of Hierarchical Multiple Regression Analysis Investigating Predictors of Nursing Students' Perception in the CLE (N = 220)**

Predictors	Step 1 B (SE) $\beta$	Step 2 B (SE) $\beta$	Step 3 B (SE) $\beta$
Constant	3.85 (.28)	4.72 (.36)	4.05 (.39)
Age	0.01 (.01) .06	0.01 (.01) .07	0.01 (.01) .05
Year of Study (Ref: 2nd Year)			
- 3rd Year	-0.21 (.10) -.14*	-0.28 (.11) -.19*	-0.25 (.10) -.17*
- 4th Year	-0.34 (.12) -.20**	-0.41 (.13) -.24**	-0.38 (.12) -.22**
Practicum Factors			
Duration of Practicum		-0.12 (.03) -.39***	-0.13 (.03) -.41***
Supervision Factors			
Intensity of Supervision			0.41 (.09) .27***
Frequency of Supervision			0.07 (.02) .18***

The hierarchical multiple regression analysis showed that in Step 1 (demographics), year of study significantly predicted perception of the clinical learning environment, with both third-year ( $\beta = -.17$ ,  $p < .05$ ) and fourth-year students ( $\beta = -.22$ ,  $p < .01$ ) reporting lower perception compared to second-year students. Age was not a significant predictor. In Step 2 (practicum factors), the duration of practicum emerged as a significant negative predictor ( $\beta = -.41$ ,  $p < .001$ ), indicating that longer practicum

duration was associated with lower perception. The inclusion of practicum factors increased the explained variance to 14% ( $\Delta R^2 = .10$ ,  $p < .01$ ).

In Step 3 (supervision factors), both intensity of supervision ( $\beta = .27$ ,  $p < .001$ ) and frequency of supervision ( $\beta = .18$ ,  $p < .001$ ) were significant positive predictors of perception. The addition of supervision factors substantially improved the model, raising the explained variance to 32% ( $\Delta R^2 = .18$ ,  $p < .001$ ).

**Table 5. Summary of Hierarchical Multiple Regression Analysis Investigating Predictors of Nursing Students' Satisfaction in the CLE (N = 220)**

Predictors	Step 1 B (SE) $\beta$	Step 2 B (SE) $\beta$	Step 3 B (SE) $\beta$
<b>Constant</b>	3.91 (.38)	4.55 (.56)	3.33 (.59)
<b>Age</b>	0.01 (.01) .04	0.01 (.01) .06	0.02 (.01) .06
<b>Year of Study (Ref: 2nd Year)</b>			
- 3rd Year	-0.31 (.12) -.19*	-0.38 (.13) -.23**	-0.36 (.12) -.22**
- 4th Year	-0.44 (.14) -.24**	-0.52 (.15) -.28**	-0.49 (.14) -.27**
<b>Practicum Factors</b>			
Duration of Practicum		-0.10 (.05) -.24*	-0.11 (.04) -.25*
<b>Supervision Factors</b>			
Intensity of Supervision			0.61 (.13) .26***
Frequency of Supervision			0.13 (.03) .22***

The hierarchical multiple regression analysis indicated that in Step 1 (demographics), year of study significantly predicted satisfaction in the clinical learning environment. Compared to second-year students, third-year ( $\beta = -.22$ ,  $p < .01$ ) and fourth-year students ( $\beta = -.27$ ,  $p < .01$ ) reported lower satisfaction, while age was not a significant predictor.

In Step 2 (practicum factors), the duration of practicum was a significant negative predictor of satisfaction ( $\beta = -.25$ ,  $p < .05$ ), showing that longer practicum duration was associated with lower satisfaction. The inclusion of practicum factors increased the explained variance from 5% to 14% ( $\Delta R^2 = .09$ ,  $p < .05$ ).

In Step 3 (supervision factors), both intensity of supervision ( $\beta = .26$ ,  $p < .001$ ) and frequency of supervision ( $\beta = .22$ ,  $p < .001$ ) were significant positive predictors of satisfaction. Adding supervision factors substantially improved the model, raising the explained variance to 36% ( $\Delta R^2 = .22$ ,  $p < .001$ ).

## Discussion

The findings of this study revealed moderate overall perception and satisfaction among nursing students regarding their clinical learning environment (CLE). Among the sub-dimensions, the leadership style of ward managers and pedagogical atmosphere were rated highest, while supervisory relationships scored lowest. This aligns with prior evidence that effective ward leadership fosters supportive environments and enhances student learning experiences (Allan et al., 2008). Similarly, a positive pedagogical atmosphere has been identified as a critical factor in ensuring quality clinical placements (Courtney-Pratt et al., 2012).

Hierarchical regression results demonstrated that year of study and practicum duration were negatively associated with both perception and satisfaction, suggesting that as students advance in training and experience longer placements, their expectations may not always be met. This is consistent with Sey-Sawo et al. (2017), who reported that structural and supervisory challenges in The Gambia's nursing



education system limited consistent student support. Comparable trends across Africa highlight that inadequate resources and variability in clinical sites affect student satisfaction (Klopper & Uys, 2013). Supervision intensity and frequency emerged as the strongest predictors of both perception and satisfaction. This is reinforced by studies showing that continuous student-educator relationships and effective supervision improve learning continuity and professional confidence (Yaghoubinia et al., 2014; Saarikoski et al., 2008). Moreover, the high positive correlation between perception and satisfaction in this study supports the notion that supportive supervision enhances both dimensions simultaneously (Courtney-Pratt et al., 2012). Thus, improving supervisory practices remains essential for strengthening clinical learning outcomes in nursing education.

### 3. Conclusion

This study concludes that nursing students' perception and satisfaction with the clinical learning environment are strongly shaped by supervision quality, with intensity and frequency of supervision emerging as the most influential predictors. Strengthening supervisory practices, improving ward leadership, and ensuring supportive clinical placements are therefore recommended to enhance both learning outcomes and student satisfaction.

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