

Original Research Article

Challenges faced in clinical learning environment: a questionnaire survey

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ABSTRACT

Background: Clinical learning is a key aspect of healthcare education, offering students hands-on experience in real-world settings. This study explored the challenges faced by nursing students within the clinical learning environment (CLE) at selected private institutions in Himachal Pradesh.

Methods: A descriptive research design was employed with 347 nursing students selected through convenience sampling. Findings indicated several significant challenges.

Results: About 34.2% of students reported limited exposure to unusual clinical cases, while 22.2% noted a lack of opportunities to document in patient medical records. Additionally, 28.6% experienced difficulty in applying a patient-centered approach during clinical practice. Supervision-related concerns were also highlighted, with 18.7% of students reporting inadequate feedback and 19.6% expressing dissatisfaction with their interactions with supervisors. Furthermore, 20.8% felt unprepared for clinical encounters, reflecting a need for better orientation and support. The study revealed a strong positive correlation at the 0.01 level among all domains of the Clinical Learning Evaluation Questionnaire (CLEQ), including Cases, Authenticity of clinical experience, Supervision, Organization of the nurse-patient encounter, and Motivation/learning needs. The maximum CLEQ score recorded was 200, with a mean score of 156.52 and a standard deviation of 14.80. Additionally, a statistically significant association was observed between the type of hospital posting and CLEQ scores ($p < 0.01$), suggesting institutional factors play a role in the student learning experience. However, no significant association was found between CLEQ scores and students' age or year of study.

Conclusions: These findings underscore the need for improved supervision, better clinical exposure, and enhanced student support.

Keywords: Clinical learning evaluation questionnaire, Learning barriers, Nursing

INTRODUCTION

Nursing education plays a vital role in preparing students for modern healthcare, with hands-on training and evidence-based practice central to building clinical decision-making skills.^{1,2} The clinical learning environment (CLE) is essential in nursing, blending cognitive, psychomotor, and emotional skills to foster

competence.^{3,4} Applying theory to real-life scenarios, receiving mentor-ship, building interpersonal connections, and obtaining feedback significantly shape students' learning experiences.⁵

Mastery of core clinical skills like the Glasgow Coma Scale, Apgar scoring, ventilator management, CPR, tracheostomy care, and surgical assistance is crucial for

professional readiness. Practical training sharpens critical thinking and problem-solving abilities.

A study in Malawi involving 126 participants used a mixed-methods design with the CLE inventory and focus groups. It found high overall satisfaction ($M=26.93$, $SD=4.82$) but low individualization ($M=18.01$, $SD=3.50$), revealing areas for growth.⁷ Regression analysis showed positive correlations between satisfaction and personalization ($\beta=0.50$, $p<0.001$) and task orientation ($\beta=0.16$, $p<0.05$). Key challenges included limited resources, poor supervision, and strained staff relationships.⁷

Becoming a nurse demands rigorous academics and commitment, yet students face barriers like complex clinical rotations, financial burdens, mentorship gaps, and work-life imbalance. Additional issues include inadequate communication with clinical staff, limited educator support, and substandard learning environments. These factors impact student satisfaction and performance, emphasizing the need for educational reform to enhance clinical training and ensure effective transition into professional practice.

METHODS

A This study employed a quantitative research approach with a descriptive design to assess challenges in the clinical learning environment (CLE) among nursing students from selected private institutions in Himachal Pradesh. The research setting included Akal, Shivalik, Mata Padmavati, and Shimla Nursing Colleges. The target population was B.Sc. Nursing students who met inclusion criteria, and a sample size of 347 was selected using convenience sampling.

Inclusion criteria included students from all years willing to participate; exclusion criteria were absence during data collection and enrollment in other departments. Data was collected using a standardized tool the clinical learning evaluation questionnaire (CLEQ) developed by AlHaqwi (2014), comprising 40 items across five domains: clinical cases, authenticity, supervision, organization, and motivation. Items were rated on a 5-point Likert scale, and results were categorized as highly satisfied, satisfied, or unsatisfied. The tool consists of 2 sections i.e., Section A which include Socio-demographic variables such as age, year of course, type of hospital of posting and section B comprises of 5 domains of CLEQ. CLEQ is a standardized questionnaire that was developed by AlHaqwi in 2014.¹⁰ CLEQ composed of 40 items that investigate 5 main aspects that can affect clinical learning of students. These aspects are: provision of clinical cases (six items), authenticity of clinical experiences (nine items), supervision (seven items), organization of the doctor-patient encounters (eleven items), and motivation of students to learn (seven items). Responses of students to every item by rating it on a 5-point Likert Scale as (1) strongly disagree, (2) disagree, (3) undecided, (4) agree

and (5) strongly agree. The items of the CLEQ were phrased in a way that could reflect students' perception. The degree of student's agreement is indicated by the mean of responses to the statements of the CLEQ. Formal permission was obtained from the principal of private nursing institution (Akal College of Nursing, Shivalik College of Nursing, Mata Padmavati College of Nursing, Shimla Nursing College) to conduct the study. Written informed consent was taken from all participants. Anonymity and confidentiality were assured. As CLEQ is a validated tool, no pilot study was conducted as it was a standardized tool with reliability by Cronbach's alpha of 0.88.

Data collection was done from 1st to 25th March via disseminating Google Forms online. The process included informed consent, baseline socio-demographic data collection, and administration of the CLEQ. Data analysis was performed using descriptive and inferential statistics to interpret findings related to student challenges in the CLE.

Cochran's sample size formula is used.

$$n = Z^2 \times p \times (1-p) \div E^2$$

$$n = 1.96 \times 1.96 \times 0.7 \times (1-0.7) \div (0.05)^2$$

$$n = 3.8416 \times 0.7 \times 0.3 \div 0.0025$$

$$n = 0.807384 \div 0.0025$$

$$n = 322.94$$

$$n = 323$$

Using dropout rate =5%

$$323 + 16 = 339$$

Here:

Z=the Z-value, extracted from Z-table

p=the population size

e=the margin of error

RESULTS

On the five domains of the CLEQ, students scored highest on the "organization of the nurse-patient encounter" domain (mean = 42.76 ± 4.28 , median = 44, mode = 44) and lowest on the "cases" domain (mean = 23.14 ± 3.14 , median = 24, mode = 24). The "authenticity of clinical experience" domain had a mean of 35.05 ± 4.03 (median/mode = 36), "supervision" scored 27.01 ± 3.56 (median/mode = 28), and "motivation/learning needs" came in at 28.56 ± 3.35 (median/mode = 28). Overall, across all domains (range 92–200), the total mean score was 156.52 with a standard deviation of 14.80 (median = 158, mode = 160), indicating generally favorable perceptions of the clinical learning environment with some variability among students.

Table 1: Socio-demographic profile and association between clinical learning domains with selected socio-demographic variables of nursing students (n=347).

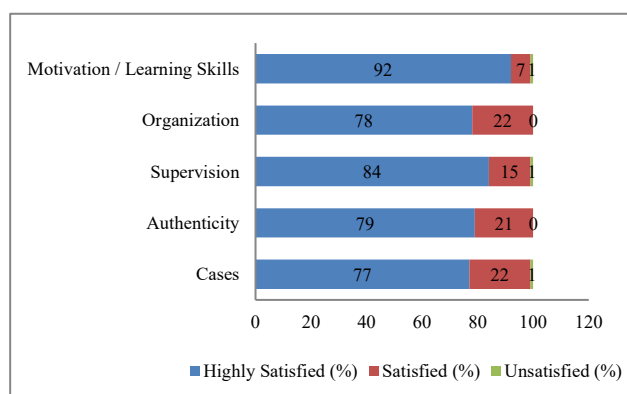
Socio-demographic variables	Clinical learning evaluation questionnaire			f (%)	Chi-square	Df	P value
	Highly satisfied	Satisfied	Unsatisfied				
Age (years)							
18-19	103	26	01	130 (38)	4.227	6	0.646 ^{NS}
20-21	142	27	00	169 (49)			
22-23	36	04	00	40 (11)			
23-above	07	01	00	08 (22)			
Year of course							
First year	72	19	1	92 (26)	8.399	6	0.210 ^{NS}
Second year	79	21	00	100 (29)			
Third year	81	12	00	93 (27)			
Fourth year	56	06	00	62 (18)			
Type of hospitals for posting							
Government hospitals	265	50	00	315 (91)	5.102	4	0.000**
Private hospitals	17	08	00	25 (7)			
Other centers (PHCs, CHCs)	06	00	01	7 (2)			

^{**} Significant at p<0.01. NS indicates not significant association.

Table 2: Strong positive co-relation at the 0.01 level among domains of CLEQ (n=347).

Domain		Cases	Authenticity of clinical experience	Super-vision	Organization of the nurse patient encounter	Motivation/ Learning Skills	Total
Cases	R	1	0.601 ^{**}	0.395 ^{**}	0.582 ^{**}	0.493 ^{**}	0.750 ^{**}
	P value		0.000	0.000	0.000	0.000	0.000
Authenticity of clinical experience	R	0.601 ^{**}	1	0.510 ^{**}	0.643 ^{**}	0.560 ^{**}	0.835 ^{**}
	P value	0.000		0.000	0.000	0.000	0.000
Supervision	R	0.395 ^{**}	0.510 ^{**}	1	0.607 ^{**}	0.491 ^{**}	0.750 ^{**}
	P value	0.000	0.000		0.000	0.000	0.000
Organization of the nurse patient encounter	R	0.582 ^{**}	0.643 ^{**}	0.607 ^{**}	1	0.648 ^{**}	0.880 ^{**}
	P value	0.000	0.000	0.000		0.000	0.000
Motivation/ learning skills	R	0.493 ^{**}	0.560 ^{**}	0.491 ^{**}	0.648 ^{**}	1	0.789 ^{**}
	P value	0.000	0.000	0.000	0.000		0.000
Total	R	0.750 ^{**}	0.835 ^{**}	0.750 ^{**}	0.880 ^{**}	0.789 ^{**}	1
	P value	0.000	0.000	0.000	0.000	0.000	

^{**}:Correlation is significant at the 0.01 level.

**Figure 1: The overall level of satisfaction of students for CLEQ (n=347).**

In relation to the satisfaction-levels across domains “cases” domain (statements 1-6) 77% of students were *highly satisfied* (269 students), 22% were *satisfied* (75 students), and 1% were *unsatisfied* (3 students). In “authenticity of clinical experience” (Statements 7-15) 79% were highly satisfied (273 students) and 21% satisfied (74 students); none were unsatisfied (0 students). For “supervision” (statements 16-22), 84% were highly satisfied (290 students), 15% satisfied (54 students), and 1% unsatisfied (3 students). In the “organization of the nurse-patient encounter” (statements 23-33) domain, 78% were highly satisfied (272 students), 22% satisfied (75 students), and 0% unsatisfied. finally, in “motivation/learning skills” (statements 34-40), the highest satisfaction was observed: 92% were highly

satisfied (320 students), 7% satisfied (25 students) and 1% unsatisfied (2 students).

Overall, the vast majority of students reported *highly satisfied* levels across all domains especially in motivation/learning skills reflecting a strong overall satisfaction with the clinical learning environment as measured by the questionnaire.

DISCUSSION

In the present study, the challenges faced in the cases are exposure to unusual clinical cases, variety of new clinical cases, interest level of clinical cases and sufficient number of clinical cases and cases with positive clinical findings.

A similar study was done by Mari Wolff Skaalvik, Hans Ketil Normann, and Nils Henrikse conducted a study on 511 nursing students, results indicated that students placed in nursing homes rated their clinical learning environment significantly more negatively across nearly all sub-dimensions compared to those placed in hospital settings.¹¹

A study was conducted by Akyüz E, Ergöl Ş, on 235 nursing students showed Nearly half (49.8%) of nursing students reported challenges in clinical practice, mainly due to nurses, hospital environment, and theoretical education. About 70.7% could only partially apply classroom learning to clinical settings. Students recommended more practical lessons and tech-integrated, innovative teaching methods.¹²

Authenticity of clinical experience

In present study it was revealed that in the domain of Authenticity of clinical experience, the challenges faced by the nursing students are opportunity to write in a patient's medical card, opportunity to deal with patients as a whole, opportunity to apply a patient-centered approach and first contact experience and active involvement in patient care.

A similar study was conducted by Ergezen FD, Akcan A, and Kol E, on 1484 nursing students showed 53.8% reported satisfaction with the clinical learning environment. Students were most satisfied with technical skills and interpersonal caring experiences. The average score on the clinical learning environment scale was 70.12 (SD = 9.25).¹³

A contradictory study was conducted by Khan A et al a total of 259 participants, consisting of 127 student nurses and 132 paramedic students participated the results revealed nursing and paramedic students faced significant challenges in the clinical environment, including high anxiety, stress, and limited hands-on practice. Students also struggled with the use of medical equipment during clinical rotations.¹⁴

Supervision

In present study it was revealed that in the domain of supervision majority of students faced the challenges related to feedback on clinical performance, satisfaction with supervisors' interaction and supervisors as role models, commitment to teaching and communication skills and respect from supervisors and teaching skills.

AlHaqwi AI et al conducted a study with 182 undergraduate medical students to develop the CLEQ. Factor analysis identified six key areas, including supervision, authenticity, and motivation, with strong overall reliability ($\alpha=0.88$). Notable score differences were found in supervision and organization of doctor-patient encounters.¹⁵ Berhe S et al conducted a qualitative study with 75 final-year nursing students to explore challenges in the clinical learning environment. Key issues identified were students' lack of readiness, limited clinical supervision, and an unsupported clinical setting.¹⁶

Organization of the doctor patient encounter

The present study found that students faced challenges in doctor-patient encounter organization, including limited input in rotation planning, unclear objectives, lack of preparation and reflection time, minimal supervisor interaction, limited skills lab use, and overcrowded clinical sessions.

Mohamed HAB et al conducted a study with 222 undergraduate nursing students to assess clinical learning challenges using the CLEQ. Findings emphasized motivation and supervision as key factors, with strong correlations between total CLEQ scores and domains like cases, supervision, organization, and motivation. The study suggests that targeted improvements in these areas could significantly enhance the clinical learning environment.¹⁷

A contradictory study was conducted by Jafarian-Amiri SR et al to explore challenges encountered by nursing students in clinical practice. Following a two-stage application of inclusion and exclusion criteria, 32 articles were selected for analysis. Data were predominantly collected through interviews. The findings indicate that student nurses commonly face challenges such as violence, fear, anxiety, socio-cultural barriers, environmental-organizational stressors, and ineffective clinical education.¹⁸

Motivation and learning skills

In present study it was revealed, that in the domain of motivation and learning skills majority of students faced challenges related to knowledge of learning needs and eagerness to learn, preparedness for clinical sessions and ability to express oneself and show confidence, ability to seek new information and enjoyment of learning in clinical sessions and awareness of limitations.

A similar study was done by Elisabeth Carlson and Ewaldvall, to evaluate nursing students' experiences in the clinical learning environment, gathering data from 260 student nurses. The findings indicated an overall positive evaluation of the clinical learning environment. Specifically, the sub-dimension of Supervisory relationship and motivation received the highest mean value, while the lowest score was observed in the Leadership style of the ward manager sub-dimension.¹⁹

A study was conducted by AlAzri Z et al to investigate and interpret nursing students' perceptions of the challenges encountered during their clinical experiences. The study enrolled a total of 32 participants, and data were gathered through focus group discussions. The result of the study shows the, challenges hindering self-directed learning, the theory-practice gap, insufficient practice opportunities, and lack of confidence.²⁰

CONCLUSION

As regarding CLEQ, the finding of the present study revealed that motivation and supervision parts were the most benefit parts of clinical training. While the other parts such as authenticity, organization and cases items are also important as per the agreement. Nursing Practice involves applying theoretical knowledge to real patient care, developing clinical skills through assessment, treatment, documentation, and teamwork under supervision. Concluding, Clinical learning experience is crucial for nursing students, shaping their learning process. Factors like limited hospital placements, gaps in knowledge and practice, and restricted hands-on practice impact their training and overall academic learning which demotes their confidence. Examining clinical placements provides insights into these challenges. The study findings help institutions address deficiencies and improve clinical education. This study aims to assess the challenges faced by nursing students in the clinical learning environment.

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