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Assessment of Clinical Learning Environment, Supervision (CLES) among Nursing Students, Hyderabad, Sindh, Pakistan

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Abstract

Background: In nursing education for better teaching and essential professional skills, the clinical practice plays a substantial role. Practice at clinical settings permits students to convert theoretic knowledge into the knowledge of the skills mandatory for the care of the patient. Clinical learning environment (CLE) is an important part in education of nursing and has a sizable influence on the students' learning. **Objective:** The purpose of this study is to examine perception and satisfaction of nursing students with their CLEs in Hyderabad, Pakistan. **Methods:** This cross-sectional study was conducted at three nursing institutes of Hyderabad from December 2018 to January 2019 among 342 nursing students. Clinical Learning Environment, Supervision and Nurse Teacher (CLES + T) assessment tool was used as the instrument to identify the students' perception about the learning environment in clinical setting. **Results:** The mean age of the participants was 25.6 ± 4.93 with majority of them male (70.7%). Three domains, pedagogical atmosphere, supervisory relationship and nurse teacher role in clinical practice showed good reliability of more than 70%. Highest domains vise mean score was obtained for nursing premises on the ward (3.315) whereas lowest for nurse teacher role in clinical practice (NT) (3.062). Analysis of variance revealed that three domains supervisory relationship, leadership style of the ward manager and premises of nursing showed significant mean score difference among supervisor title. **Conclusion**: It was found that students valued positive supervision, ward manager leadership style premises of nursing on the ward as positive CLE. Learning environment varies between gender, clinical settings and

supervision. Medicine ward appeared to deliver the finest learning situations for the nursing program.

Keywords

1. Introduction

In nursing education for better teaching and essential professional skills, the clinical practice plays a substantial role [1]. Practice at clinical settings permits students to convert theoretic knowledge into the knowledge of the skills mandatory for the care of the patient [2]. Nursing education is that type of education where skill-based technicality is an important factor hence there is a noteworthy practical necessity for the learners. Hence, the clinical learning environment (CLE) is an important part in education of nursing and has a sizable influence on the students' learning [3]. The CLE could be explained as an interactive forces' network in clinical area that affects the learners' outcomes [4]. It comprises encounter of numerous people student nurses *i.e.*, nursing staff, patients, nurse mentors, physicians [5]. Experience for clinical education helps the mastery of cognitive, psychomotor and affective behaviors required for competent entry-level practice. Improvement in CLE is possible when ward processes and structures are active; nursing staff are respected, stirred, and have upright relationships along well communication with learners; good care with quality is provided and students are acknowledged as learners as they can contribute to care [6]. Assistance and positive environment in which students are viewed as fresher colleagues [5] are also factors for enhancement. In addition to the clinical area academic environment, the relationship with supervisor, style of the leadership of manager at ward and care quality are vital for developing a decent learning environment [5] [7].

Furthermore, it is substantial that there should be a collaboration between health-care and educational institutions regarding the clinical learning environment [8]. Insufficient communication between above-mentioned institutions can lead to tension and less support, hence affect students to learn throughout their placement. Researches showed that a decent learning environment at clinical settings is helped through collaboration between nurse teacher and clinical staff [5] [9].

Some researches considered ward managers part with respect to sustaining and developing a decent learning environment although this character is important [10]. An observational study [11], which was conducted at three Swedish universities in 2011 among 185 nursing students, found that there was no significance difference of satisfaction of nursing students through the placement between clinical settings. Though, those placed in clinical departments of hospital

strongly agreed that satisfactory learning circumstances were multi-dimensional and substantial learning circumstances occurred.

This purpose of this study is to examine perception and satisfaction of nursing students with their CLEs in Hyderabad, Pakistan. It is beneficial to understand expectation of the students for their clinical experience to provide a positive CLE and proper supervision. Findings from this study may play a part to increase supervisors' awareness of instructing and teaching to the students.

2. Methodology

This cross-sectional study was conducted at three nursing institutes, School of Nursing Liaqat University, Hospital, Jamshoro, Dua Institute of Nursing, Qasimaad, Hyderabad, School of Nursing, Sir Cowasjee Jehangir Institute of Psychiatry Hyderabad from December 2018 to January 2019. Nursing students of age greater than 16 years of either gender were selected through non-probability purposive sampling method from the three nursing schools. At first instance permission was obtained from the all principal of the schools then verbal and written consents were taken from individual students to participate in this study. Sample size was calculated through WHO online software OpenEpi v.3.0. By using percentage of nursing student agreement of satisfaction of clinical placement as 85.4% [11], margin of error as 5% and confidence level as 99% the calculated sample size was 331, however we were able to take data from 342 nursing students. It has 34 questions on a five-point Likert scale, fully agree to fully disagree. All students completed the questionnaire as students filled questionnaire during the class after taking permission from the class/subject teacher. Hence response rate was 100% and all the questions were available for the statistical analysis. It has five domains, "Pedagogical atmosphere on the ward", "Leadership style of the ward manager", "Premises of nursing on the ward", "Supervisory relationship" and "Role of the nurse teacher in clinical practice" 9, 4, 4, 8 and 9 items respectively. Frequencies (percentages) and means (standard deviations) were obtained for the demographics characteristics and learning environment. Cronbach alpha was calculated for reliability analysis. Independent sample t-test was employed to look domain vise mean score between genders of nursing students. Analysis of variance was also used to identify significant mean score difference of clinical learning environment among supervisor title and clinical placement. P-value less than equals to alpha was considered as significant.

3. Results

Table 1 depicts demographic and clinical placement characteristics of the nursing students. The mean age of the participants was 25.6 ± 4.93 with majority of them male (70.7%). The most prominent type of the program was Registered Nurse with 1st year of education. Most of the students (68.6%) were under supervision of nurse, with few under supervision of ward managers, nurse specialists and nurse teacher. Half of the study participants mentioned that their clinical

Table 1. Demographic and clinical placement characteristics of nursing students.

Characteristic	n	%
Age (years)	25.67 ± 4.933	
18 - 22	135	34.4
23 - 27	96	24.5
28 - 32	123	31.4
>32	38	9.7
Gender		
Male	277	70.7
Female	115	29.3
Type of program		
RN	153	39.0
BScN Generic	68	17.3
BScN Post RN	86	21.9
Specialty	85	21.7
Year of education		
1st Year	216	55.1
2nd Year	146	37.2
3rd Year	30	7.7
Number of clinical courses completed	7.50 ± 3.017	
<5 clinical courses	102	26.0
5 - 10 clinical courses	260	66.3
>10 clinical courses	30	7.7
Supervisor title		
Nurse	269	68.6
Nurse specialist	41	10.5
Ward manager	42	10.7
Nurse teacher	40	10.2
Clinical placement		
Medicine ward	198	50.5
Surgery ward	129	32.9
Plead ward	65	16.6
Duration of current/last clinical placement		
2 weeks or less	71	18.1
3 weeks	63	16.1
4 weeks	102	26.0
>4 weeks	156	39.8
Frequency of supervision		
No supervisor	52	13.3

Continued

More than one supervisor	99	25.3
A personal supervisor, but the relationship did not work during the placement	28	7.1
The named supervisor changed during the placement	4	1.0
The supervisor varied according to shift or place of work	16	4.1
Same supervisor had several students and was a group supervisor	161	41.1
A personal supervisor was named and relationship worked during this placement	32	8.2
Satisfaction level		
Very unsatisfied	24	6.1
Unsatisfied	44	11.2
Neither unsatisfied nor satisfied	74	18.9
Satisfied	158	40.3
Very satisfied	92	23.5

placement was medical ward followed by surgery and plead wards. There were 13.3% students who mentioned no supervision, one-fourth reported more than one supervision and according to 41.1% nursing students the similar supervisor had many students or was a supervisor of whole group. Nearly one-fourth of the nursing students was very satisfied with clinical environment and supervision, 40.3% satisfied and only 6.1% was very unsatisfied.

Table 2 shows domain vise mean scores of each item of (CLES + T) and reliability analysis. Highest domains vise mean score was obtained for nursing premises on the ward (3.315) whereas lowest for nurse teacher role in clinical practice (NT) (3.062). Three domains, Pedagogical atmosphere, Supervisory relationship and nurse teacher role in clinical practice showed good reliability more than 70%. Whereas reliabilities of other two domains Leadership style of the ward manager, Premises of nursing on the ward were 0.489 and 0.606 respectively.

Table 3 exhibits association of gender with clinical learning environment and supervision among nursing students. For both genders highest mean scores was obtained for Premises of nursing and lowest mean scores for Role of the nurse teacher. All domains showed significant mean score difference between male and female nursing students except Premises of nursing domain.

Table 4 shows association of supervisor title with clinical learning environment and supervision among nursing students. Analysis of variance revealed that three domains Supervisory relationship, Leadership style of the ward manager and Premises of nursing showed significant mean score difference among supervisor title. For Supervisory relationship, Leadership style of the ward manager the highest mean scores were found for Nurse teacher whereas lowest for Nurse specialist. However, for Premises of nursing highest mean score was reported for Ward manager and lowest for Nurse specialist.

Table 2. The nursing students' assessment of the learning environment.

	Mean	SD	Alpha
Pedagogical atmosphere on the ward	3.0754	0.77596	0.774
The staff was easy to approach	2.92	1.327	
I felt comfortable going to the ward at the start of my shift	3.03	1.253	
During staff meetings (e.g. before shifts) I felt comfortable taking part in the discussions	3.18	1.322	
There was a positive atmosphere on the ward	2.92	1.246	
The staff was generally interested in student supervision	3.08	1.306	
The staff learned to know the students by their personal names	2.97	1.364	
There were sufficient meaningful learning situations on the ward	3.11	1.245	
The learning situations were multi-dimensional in terms of content	3.27	1.321	
The ward can be regarded as a good learning environment	3.21	1.314	
Leadership style of the ward manager (WM)	3.1263	0.69778	0.489
The WM regarded the staff on her/his ward as a key resource	2.99	1.618	
The WM was a team member	3.19	1.187	
Feedback from the WM could easily be considered a learning situation	3.30	1.266	
The effort of individual employees was appreciated	3.02	0.687	
Premises of nursing on the ward	3.3152	0.75938	0.606
The wards nursing philosophy was clearly defined	3.24	1.248	
Patients received individual nursing care	3.35	1.181	
Documentation of nursing (e.g. nursing plans, daily recording of nursing procedures) was clear	3.34	1.239	
There were no problems in the information flow related to patients' care	3.22	1.180	
Supervisory relationship	3.20	0.76	0.758
My supervisor showed a positive attitude towards supervision	3.05	1.280	
I felt that I received individual supervision	3.28	1.139	
I continuously received feedback from my supervisor	3.30	1.280	
Overall I am satisfied with the supervision I received	3.34	1.287	
The supervision was based on a relationship of equality and promoted my learning	3.15	1.320	
There was a mutual interaction in the supervisory relationship	3.21	1.219	
Mutual respect and approval prevailed in the supervisory relationship	3.16	1.257	
The supervisory relationship was characterized by a sense of trust	3.14	1.259	
Role of the nurse teacher in clinical practice (NT)	3.0624	0.41264	0.721
In my opinion, the NT was capable of integrating theoretical knowledge and everyday practice of nursing	2.98	0.711	
The NT was capable of operationalizing the learning goals of this placement	3.19	0.734	
The NT helped me to reduce the theory-practice gap	3.06	0.800	

Continued

The NT was like a member of the nursing team	3.08	0.768
The NT was able to give his or her expertise to the clinical team	3.02	0.760
The NT and the clinical team worked in supporting my learning	3.04	0.784
The common meetings between myself, mentor and NT were comfortable experience	3.06	0.727
In our common meetings I felt that we are colleagues	3.08	0.842
Focus on the meetings was on my learning needs	3.08	0.725

Table 3. Association of gender and clinical learning environment and supervision among nursing students.

Gender	Male		Female		Independent sample t-test	
CLES	Mean	SD	Mean	SD	Statistic	P-value
Supervisory relationship	3.1512	0.76287	3.3326	0.75834	−2.148	0.032
Pedagogical atmosphere	3.0205	0.78384	3.2077	0.74340	−2.186	0.029
Role of the nurse teacher (NT)	3.0074	0.36311	3.1988	0.49114	−4.175	<0.001
Leadership style of the ward manager (WM)	3.0668	0.58286	3.2696	0.90451	−2.640	0.009
Premises of nursing	3.3079	0.79065	3.3329	0.68111	−0.297	0.767

CLES: Clinical learning environment and supervision.

Table 4. Association of supervisor title and clinical learning environment and supervision among nursing students.

Supervisor title	Nurse		Nurse specialist		Ward manager		Nurse teacher		ANOVA	
CLES	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Statistic	P-value
Supervisory relationship	3.1357	0.75577	3.1006	0.50406	3.3690	0.87997	3.6000	0.79673	5.362	0.001
Pedagogical atmosphere	3.0785	0.74349	2.9621	0.47376	2.9577	0.94566	3.2944	0.99494	1.687	0.169
Role of the nurse teacher (NT)	3.0600	0.41920	2.9912	0.27141	3.0684	0.49271	3.1425	0.39486	0.871	0.456
Leadership style of the ward manager (WM)	3.1041	0.74303	2.8841	0.43336	3.2679	0.62565	3.3750	0.57735	4.102	0.007
Premises of nursing	3.2406	0.75422	3.0174	0.44971	3.7415	0.71271	3.6750	0.81905	11.183	<0.001

CLES: Clinical learning environment and supervision; SD: Standard deviation; ANOVA: Analysis of variances.

Table 5 reveals association of clinical placement with clinical learning environment and supervision among nursing students. Analysis of variance confirmed that there was significant mean score difference for all domains among different clinical placements. From **Table 5** it is cleared that for all domains highest mean scores were reported for Medicine ward and lowest means of Supervisory relationship, Pedagogical atmosphere and Premises of nursing were reported for Plead ward and other remaining two domains showed lowest mean score for Surgery ward.

Table 5. Association of clinical placement and clinical learning environment and supervision among nursing students.

Clinical placement	Medicine ward		Surgery ward		Plead ward		ANOVA	
CLES	Mean	SD	Mean	SD	Mean	SD	Statistic	P-value
Supervisory relationship	3.3889	0.82424	3.0320	0.67428	2.9846	0.60091	12.398	<0.001
Pedagogical atmosphere	3.2155	0.88065	2.9345	0.65169	2.9282	0.56500	6.712	0.001
Role of the nurse teacher (NT)	3.1386	0.48623	2.9691	0.29064	3.0194	0.33126	7.016	0.001
Leadership style of the ward manager (WM)	3.2197	0.62343	2.9884	0.52836	3.1154	0.107445	4.376	0.013
Premises of nursing	3.5000	0.79269	3.1484	0.70832	3.0835	0.60761	12.720	<0.001

CLES: Clinical learning environment and supervision; SD: Standard deviation; ANOVA: Analysis of variances.

4. Discussion

This study deals satisfaction and perception of nursing students with the clinical learning environment. Finding of the study exhibited that student nurses were satisfied with their clinical placement experiences. In our study leadership style varied significantly among clinical placements. Students in a medicine ward thought that the managers valued the efforts of the staff, viewed them as a main resource and was one of the team. Students in plead ward showed least mean score of supervisory relationship. A cross-sectional study [11] conducted at three different Swedish universities showed that highest mean score of leadership style was obtained for psychiatric department whereas lowest for community-based settings and similar results were also obtained for Norwegian study [12]. In our study pedagogical atmosphere was also differed among clinical settings and highest mean score was obtained for medicine ward whereas lowest for plead ward. However study of Bisholt *et al.* [11] did not show significant means score of pedagogical atmosphere for different clinical settings. In this study we found less scores for items regarding the co-operation between the Nurse Teacher and staff this is in line with the findings of studies [9] [11] [13] [14]. The low scores might be attributable to the reality that items' wording in CLES + T for example "The nurse teacher was like a member of the nursing team" do not resemble to the part of the nurse teacher in current-day education of nursing academia [9].

Students in nursing might think that there is substantial learning. Though, consideration requires to both to where various clinical placements are planned inside the program and to the clinical areas provide learning chances and permit them to attain the objectives [15]. The strong point of current study is being the first attempt to explore area of nursing undergraduate education with a standardized instrument in Hyderabad Sindh. Clinical training of nursing students shares same educational needs and systematic rules such as practical training of different other health care students (dentists, doctors and midwives, etc.) at undergraduate level. Nevertheless, there is a dearth of similar relative studies in

health care education field, primarily for the reason that different instruments used.

5. Conclusion

It was found that students valued positive supervision, ward manager leadership style premises of nursing on the ward as positive CLE. Learning environment varies between gender, clinical settings and supervision. Medicine ward appeared to deliver the finest learning situations for the nursing program. It is important that the clinical setting fulfills the requirements regarding a good learning environment so that student considers that the learning is substantial and follows a progression.

Limitations

This research can be conducted to a miscellaneous group of students from various institutional settings with longer period. Due to cross-sectional study design the cause-effect relationships of the effectiveness of the CLEST sub-dimensions could not be obtained. This can be achieved through Intervention research studies on integrated clinical teaching models and strategies.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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