



# Perception Of Undergraduate Nurses on Clinical Placement in King Faisal Hospital and Research Centre, Saudi Arabia

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## Abstract

Nursing is a specialist career that requires a wide range of skills and knowledge. The learning environment is a critical component of adult learning and has a significant impact on student fulfilment and academic achievement. Academic training is normally considered as a setting where students learn theoretical and professional knowledge for lifelong education. The purpose of this study was to quantify nursing students' perceptions of their clinical placement as a learning environment and to elicit their recommendations for improvement. A descriptive cross-sectional, quantitative study of undergraduate nursing students was done. Undergraduate nursing students are in the fifth year of a Bachelor of Science in Nursing program placed at King Faisal Hospital in Saudi Arabia. (n = 106) people were sampled. This study employed the CLEST scale, which comprises 26 items and 5 variables, with a 4-point scale (strongly disagree, disagree, agree, and strongly agree). Any of these 26 items' descriptive statistics (mean and standard deviation) Cronbach's alpha indicates larger values for the scale regardless of which is eliminated. It has a total dependability of 0.934, which is very significant (F = 15.14, p < 0.0001). Approximately 90% of nursing students evaluated the practical learning environment at King Faisal Hospital and Research Centre positively. Current medical and technological advancements in patient care require future research to address issues that inhibit students' effective learning and development in the clinical learning environment.

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**Key Words:** Clinical learning environment, nursing students, perceptions, King Faisal Hospital

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## Introduction

Nursing is a highly specialized field that requires nurses with exceptional abilities and knowledge. McKenna (2019) defined clinical learning skills as the ability to teach a new educational method during nursing training. Clinical learning environments should support and assist students in their learning process. Any positive pedagogical environment will foster students' problem-solving abilities and ability to ask questions.

The learning environment is a critical component of adult learning and has a significant impact on student fulfilment and academic achievement.

Nursing students enter the medical field as novices with only a rudimentary understanding of both background theories from textbooks and practical education. Clinical learning environments enable nursing students to integrate their theoretical classroom knowledge with the practical skills necessary to make independent clinical decisions. Promoting learning environments can help students grow academically.

The concept of the clinical nurse has been used to integrate theoretical and practical knowledge in order to assist nursing students. Some nurses serve as role models, teaching and evaluating

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practical skills while others help nursing students balance their clinical knowledge. Clinical practice is an essential tool for nursing students to bridge the divide between theoretical knowledge and practical skills. Nursing students' skills will be enhanced through participation in and observation of registered nurse functions, Adelman-Mullaly et al. (2013).

Undergraduate nurses pursuing a Bachelor of Science in nursing in Saudi Arabia will be rotated for clinical skills exposure during the fifth year of the nursing program. Whether the care and support provided to nursing students during their clinical placement at King Faisal Hospital promotes learning or not, the question arises as to whether the clinical learning environment assists undergraduate nursing students in developing the required skills. There is a disconnect between supervisory expectations and reality in the clinical learning environment when compared to teaching undergraduate students in King Faisal Hospital.

Clinical learning environments must grasp supervisory and instructional aspects in terms of the best mode of learning. Practice-based learning is characterized by considerable unpredictability and silent learning processes. Inspiring undergraduate nursing students to collaborate as a team in the clinical setting is crucial. According to Tremayne and Hunt, 2019, a favourable clinical experience improves students' impressions of the facility as a potential location of employment, leading to more jobs for new nursing graduates. These student-clinical staff partnerships will improve patient care and satisfaction. Tuomikoski et al. (2020) report that nursing students practice hands-on skills during clinical placements.

It's important to measure student views and satisfaction with a clinical learning environment meant to help nursing students learn and build skills. The lack of published studies evaluating student nurses' clinical learning environment in Saudi Arabia warrants this investigation. This study could examine practice and student participation in the new learning environment. The purpose of this study was to quantify nursing students' perceptions of their clinical placement as a learning environment and to elicit their recommendations for improvement.

## Methodology

### Research design

A descriptive cross-sectional study was conducted to examine undergraduate nurses' perceptions of

their clinical placement at King Faisal Hospital and Research Centre.

### Sampling

This study included only final year (5th year) nursing students from various universities and their clinical internship program at King Faisal Hospital and Research Centre (n=106). In contrast, from the first to fourth years of the Bachelor's nursing program in Saudi Arabia, there will be no clinical placement in a healthcare institution. Fifth-year students are deemed more appropriate for inclusion because they are expected to possess adequate clinical learning skills to provide feedback on the educational environment in the study setting.

### Inclusion criteria

1. Any fifth-year regular nursing program student from any university who is scheduled to complete clinical rotations at King Faisal Hospital.
2. Have completed at least one month of clinical placement at King Faisal Hospital as part of the Regular Nursing Program.

### Exclusion criteria

1. This study did not include postgraduate nurses.
2. Non-Saudi nursing personnel.

### Measurement tool

The CLES+T is a 27-item questionnaire offered in the favoured version to rate their perception and understandings of the clinical learning environment and preferred learning atmosphere. This version embraces five concepts: pedagogical atmosphere, the leadership style of ward manager, premises of nursing in the ward, supervisory relationship and clinical instructor. Each construct four to eight questions trailed by four-point Linkert-scale choices: "strongly agree," "agree," "strongly disagree," and "disagree."

### Data collection

English was the language of instruction for the nursing students; data was collected in the English questionnaire. After ethical approval was obtained each student was given information about the study and CLES+T questionnaire via email and was distributed as a hard copy during their clinical placement. The return of the completed questionnaire was considered to indicate informed consent. Together with the CLES+T scale, students

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were instructed to complete further questions linked to demographic features (age, gender, and year in the program). The data was collected from the month of September 2021 to December 2021 post distribution, during their clinical placement at the King Faisal Hospital in Riyadh, the capital of Saudi Arabia.

### Data analysis

Data was analysed using SPSS (Statistical package for social sciences) 26.0 statistical software (IBM Inc., Chicago, USA). Mean, standard deviation, frequencies and percentages were used to describe the scores of factors and total score as these variables are quantitative variables and categorical variables (gender, age groups, duration of clinical experience and responses on a 4-point scale). A nonparametric Pearson's chi-square fitness test was used to observe the statistical significance of observed categorical responses of different items in each of the five factors of the CLES+T scale. Student's t-test for independent samples was used to compare the mean scores of 5 factors and the total mean score of the scale between male and female subjects and

two categories of duration of clinical experience. The scale's reliability and its items were assessed by using Cronbach's alpha. A p-value of  $\leq 0.05$  was used to report the statistical significance of the results.

### Ethical consideration

Prior to data collection, ethical approval was obtained from Institutional Review Board, King Faisal Hospital and Research Centre. An information sheet was provided to all potential respondents, who were assured that their disclosure would be preserved. All the participants were informed, of their right to withdraw from the study at any time, for any reason, without adverse consequences. Lastly, all the participants were instructed to sign a consent form attached to the questionnaire.

### Results

Out of 106 samples, 88.7% were female and most of them (98.1%) were in the age group of 20-29 years. All the samples had clinical experience, of which 83% of them had 1 to 6 months of experience. (Table 1).

**Table 1: Distribution of demographic characteristics of study subjects (n=106)**

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Characteristics	No. (%)
Gender	
Male	12 (11.3)
Female	94 (88.7)
Age groups (in years)	
20-29	104 (98.1)
30-39	2 (1.9)
Have you had a clinical experience?	
Yes	106 (100)
No	--
If yes, duration of experience	
1-6 months	88 (83.0)
7-12 months	18 (17.0)

The CLEST scale was used in this study with 26 items with five factors, where the responses were measured on a 4-point scale (strongly disagree, disagree, agree, and strongly agree). The descriptive

statistics (mean and standard deviation) of all items and their internal consistency of scale if any of these 26 items were deleted are given in Table 2.

**Table 2: Item analysis of CLES+T scale**

Items of CLEST scale	Mean	S.d.	Cronbach's Alpha if item deleted
The staff was easy to approach.	3.41	0.56	0.932
I felt comfortable going to the ward at the start of my shift.	3.33	0.61	0.932
During staff meetings (before shifts), I felt comfortable taking part in discussions.	3.01	0.74	0.933
There was a positive atmosphere on the ward.	3.18	0.61	0.932
The staffs were generally interested in student supervision.	3.09	0.81	0.929
The ward can be regarded as a good learning environment.	3.32	0.59	0.933
The WM regarded the staff on his/her ward as a key resource person.	3.18	0.66	0.934
Feedback from the WM could easily be considered a learning situation.	3.25	0.70	0.934
The effort on individual employee was appreciated.	3.22	0.63	0.932
The ward nursing philosophy was clearly defined.	3.18	0.74	0.934
Patients received individual nursing care.	3.42	0.61	0.933
There was no problem in the information flow related to patient care.	3.43	0.66	0.931
Nursing documentation (e.g., nursing plans, daily procedures, etc.) was clear.	3.50	0.68	0.931
My preceptor showed a positive attitude towards supervision.	3.46	0.74	0.930
I felt that I received individual supervision.	3.37	0.69	0.929
I continuously received feedback from my supervisor.	3.17	0.86	0.931
Overall, I am satisfied with the supervision I received.	3.37	0.78	0.928
The supervision was based on a relationship of equality and promoted my learning.	3.42	0.71	0.930
There was a mutual interaction in the preceptorship relationship.	3.39	0.68	0.931
Mutual respect and approval prevailed in the supervisory relationship.	3.50	0.59	0.930
The supervisory relationship was characterized by a sense of trust.	3.43	0.66	0.931
The CI was capable of integrating theoretical knowledge and everyday practice.	3.48	0.62	0.931
The CI was capable of operational sing the learning goals of this placement.	3.51	0.59	0.931
The CI was like a member of the nursing team.	3.52	0.65	0.932
The CI and the clinical team worked in supporting my learning.	3.51	0.64	0.930
The meetings between myself, my mentor, and CI were a comfortable experience.	3.56	0.54	0.932

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**Table 2a: Interclass Correlation Coefficient**

	Interclass Correlation	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Average Measures	.934c	.914	.951	15.144	105	2625	.000

The Cronbach's alpha shows higher values for the scale irrespective of any one of these getting deleted from the scale. Moreover, the overall reliability of this scale among these subjects is 0.934, which is highly statistically significant (F=15.14, p<0.0001). (Table2 and 2a). Overall, this research outcome, the total coefficient of the scale and the Cronbach's alpha coefficient of the subscales are within the highly reliable range comparing the range of original scale finding by Saarikoski M et al (2008). In their

study, the Cronbach's alpha coefficient is stated as 0.90 and for subscales 0.96- 0.77.

The Distribution and comparison of the study subject's responses to the six items of the Pedagogical atmosphere factor show statistically significant differences among the 4-point responses of all the six items. For all the items, highly statistically significant positive responses (agree and strongly agree) were observed by more than 80% of the subjects. (Table 3).

**Table 3: Distribution and comparison of study subject's responses to the items related to the pedagogical atmosphere factor of CLEST scale**

Items	Responses-No. (%)				χ <sup>2</sup> -value	p-value
	Strongly disagree	Disagree	Agree	Strongly agree		
The staff was easy to approach.	--	4(3.8)	55(51.9)	47(44.3)	42.58	<0.0001
I felt comfortable going to the ward at the start of my shift.	1(0.9)	5(4.7)	58(54.7)	42(39.6)	88.49	<0.0001
During staff meetings (e.g., before shifts), I felt comfortable taking part in the discussions.	4(3.8)	16(15.1)	61(57.5)	25(23.6)	68.26	<0.0001
There was a positive atmosphere on the ward.	--	12(11.3)	63(59.4)	31(29.2)	37.60	<0.0001
The staffs were generally interested in student	5(4.7)	15(14.2)	51(48.1)	35(33.0)	47.81	<0.0001



supervision.						
The ward can be regarded as a good learning environment.	1(0.9)	4(3.8)	61(57.5)	40(37.7)	95.43	<0.0001

The distribution and comparison of the study subject's responses to the three items related to the leadership style of the ward manager (WM) factor of the CLES+T scale showed statistically significant differences among the 4-point responses. For these

three items, highly statistically significant positive responses of agreeing and strongly agree were observed by more than 90% of the subjects. (Table 4).

**Table 4: Distribution and comparison of study subject's responses to the items related to the Leadership style of the ward manager (WM) factor of CLEST scale**

tems	Responses-No. (%)				χ <sup>2</sup> -value	p-value
	Strongly disagree	Disagree	Agree	Strongly agree		
The WM regarded the staff on his/her ward as a key resource person.	3(2.8)	6(5.7)	66(62.3)	31(29.2)	96.34	<0.0001
Feedback from the WM could easily be considered a learning situation.	3(2.8)	7(6.6)	56(52.8)	40(37.7)	74.91	<0.0001
The effort on individual employee was appreciated.	2(1.9)	6(5.7)	65(61.3)	33(31.1)	96.04	<0.0001

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The Distribution and comparison of the study subject's responses to the four items related to the nursing care onward factor of the CLES+T scale show statistically significant differences among the 4-point responses of all four items. For these four

items, highly statistically significant positive responses of agree and strongly agree were observed by more than 90% of the subjects. (Table 5).

**Table 5: Distribution and comparison of study subject's responses to the items related to the Nursing care on ward factor of CLEST scale**

Items	Responses-No. (%)				χ <sup>2</sup> -value	p-value
	Strongly disagree	Disagree	Agree	Strongly agree		
The ward	4(3.8)	9(8.5)	57(53.8)	36(34.0)	69.17	<0.0001



nursing philosophy was clearly defined.						
Patients received individual nursing care.	--	7(6.6)	48(45.3)	51(48.1)	34.21	<0.0001
There was no problem in the information flow related to patient care.	1(0.9)	7(6.6)	43(40.6)	55(51.9)	79.81	<0.0001
Nursing documentation (e.g., nursing plans, daily procedures, etc.) was clear.	2(1.9)	5(4.7)	37(34.9)	62(58.5)	91.81	<0.0001

The distribution and comparison of the study subject's responses to the eight items related to the supervisory relationship factor of the CLES+T scale showed statistically significant differences among the 4-point responses of all the eight items. For these

eight items, highly statistically significant positive responses of agree and strongly agree were 2333 observed by more than 80% to 90% of the subjects. (Table 6).

**Table 6: Distribution and comparison of study subject's responses to the items related to the Supervisory relationship factor of CLEST scale**

Items	Responses-No. (%)				χ <sup>2</sup> -value	p-value
	Strongly disagree	Disagree	Agree	Strongly agree		
My preceptor showed a positive attitude towards supervision.	4(3.8)	4(3.8)	37(34.9)	61(57.5)	87.28	<0.0001
I felt that I received individual supervision.	2(1.9)	7(6.6)	47(44.3)	50(47.2)	73.70	<0.0001
I continuously received feedback from my supervisor.	6(5.7)	13(12.3)	44(41.5)	43(40.6)	44.57	<0.0001
Overall, I am satisfied with the supervision I received.	4(3.8)	8(7.5)	39(36.8)	55(51.9)	68.57	<0.0001



The supervision was based on a relationship of equality and promoted my learning.	4(3.8)	2(1.9)	46(43.4)	54(50.9)	84.64	<0.0001
There was a mutual interaction in the preceptorship relationship.	3(2.8)	3(2.8)	50(47.2)	50(47.2)	83.36	<0.0001
Mutual respect and approval prevailed in the supervisory relationship.	1(0.9)	2(1.9)	46(43.4)	57(53.8)	96.64	<0.0001
The supervisory relationship was characterized by a sense of trust.	2(1.9)	4(3.8)	46(43.4)	54(50.9)	84.64	<0.0001

The Distribution and comparison of the study subject's responses to the five items related to the clinical instructor factor of the CLES+T scale showed statistically significant differences among the 4-point responses of all the five items. For these five

items, highly statistically significant positive responses of agree and strongly agree were 2334 observed by more than 95% of the subjects. (Table 7).

**Table 7: Distribution and comparison of study subject's responses to the items related to the role of clinical instructor factor of CLEST scale**

Items	Responses-No. (%)				χ <sup>2</sup> -value	p-value
	Strongly disagree	Disagree	Agree	Strongly agree		
The CI was capable of integrating theoretical knowledge and everyday practice.	1(0.9)	4(3.8)	44(41.5)	57(53.8)	90.30	<0.0001
The CI was capable of operational sing the learning goals of this placement.	1(0.9)	2(1.9)	45(42.5)	58(54.7)	97.55	<0.0001
The CI was like	2(1.9)	3(2.8)	39(36.8)	62(58.5)	96.94	<0.0001



a member of the nursing team.						
The CI and the clinical team worked in supporting my learning.	2(1.9)	2(1.9)	42(39.6)	60(56.6)	96.72	<0.0001
The meetings between myself, my mentor, and CI were a comfortable experience.	--	2(1.9)	43(40.6)	61(57.5)	51.75	<0.0001

Comparing the mean scores of 5 factors and the total mean score of the CLES+T scale between male and female subjects shows no statistically significant difference in the mean values of these five factors and the total mean score of the scale. That is, gender does not affect the mean scores of these five factors

and the total mean score of the scale. Similar non-significance was observed in the mean scores of 5 factors and the total mean score of the scale with the two categories of duration of clinical experience. (Table 8).

**Table 8: Comparison of mean scores of 5 factors and total score of CLEST scale in relation to gender and duration of clinical experience of study subjects**

Characteristics	Pedagogy		Leadership style		Nursing care		Supervisor relationship		Clinical instructor		Total score	
	Mean (Sd.)	p-value	Mean (Sd.)	p-value	Mean (Sd.)	p-value	Mean (Sd.)	p-value	Mean (Sd.)	p-value	Mean (Sd.)	p-value
<b>Gender</b>												
Male	3.34(0.47)	0.37	3.05(0.62)	0.29	3.17(0.60)	0.13	3.53(0.47)	0.37	3.52(0.59)	0.99	3.37(0.32)	0.85
Female	3.21(0.50)		3.23(0.55)		3.41(0.51)		3.37(0.60)		3.51(0.52)		3.35(0.42)	
<b>Duration of experience</b>												
1-6 months	3.23(0.51)	0.66	3.22(0.58)	0.68	3.41(0.50)	0.16	3.41(0.60)	0.38	3.56(0.54)	0.06	3.38(0.42)	0.19
7-12 months	3.17(0.45)		3.17(0.45)		3.22(0.63)		3.27(0.44)		3.30(0.42)		3.24(0.34)	

**Discussion**

The key findings of this study were that most nursing students perceived their clinical learning environment positively and were significantly satisfied in all CLES+T sub-dimensions which was p<0.0001, with their clinical learning experience; this is consistent with previous studies carried out in some European nations (Warne et al., 2010). Good quality for the clinical learning environment has been found to comprise of the educational atmosphere in the ward, supervisory relationship,

leadership style of the ward manager and the premises of nursing on the ward (Saarikoski, Isoaho, Warne & Leino-Kilpi 2008, Saukoriipi et al 2020).

Furthermore, other studies by Walsh P. et al., (2020) have summarized that nursing students require a healthy atmosphere, which nurtures their self-confidence, skills development, critical thinking and decision-making abilities.

More than 90% of the subjects from our study conducted in King Faisal hospital observed highly statistically significant positive responses for all the



items. A significant and positive association was found between every category of the CLES+T sub-dimension, stressing the robust association between the Helping role and the Pedagogical atmosphere in the ward with the supervisory affiliation. Similar to former studies by Saariskoski et al., (2007) and Saukkoriipi et al., (2020) also reported that the supervisory relationship and a good mentor were the main essentials for supporting students' skills development. Furthermore, in the future, the mentors' character will be even more superior where the role of teachers is decreasing as a result of diminishing resources in several countries (Immonen et al., 2019). Distribution and comparison of study subjects' responses to the four items related to the nursing care onward factor of the CLES+T scale showed statistically significant positive responses observed in more than 90 % of our studies conducted in King Faisal Hospital. These meaningful results related to nursing care will promote their practical skills among undergraduate nurses in our facilities.

Factors associated with the final clinical placement, such as the organized nature of the practicum, heightened the students' opportunities to address their potential competence deficits and concurrently improve on those confidence deficiencies before stepping into the nurse role. Kaihlanen et al., (2020) stated that well systematized clinical placements assist students' learning requirements and promote their skills. Based on the multi-country cross-sectional study conducted by Visiers-Jimenez L et al., (2020) in Italian, Finnish and Spanish, the Czech Republic and Slovakia evaluating students' perceptions during clinical placement showed that most students had the most positive perception of their clinical learning environment, whereas students from the Czech Republic and Slovakia were the least positive. The dissimilarity could elucidate this study in the organization of clinical placement variations in defining clinical education between nations. Inconsistency in the literature was found regarding our results. One study finding from Norwegian, Scaalvik MW et al., (2011) on nursing students' CLE experiences specified that ward managers are not directly involved in clinical teaching or supervision of nursing students.

Clinical education in the wards has been revealed to enhance students learning likely and in the ward, the clinical instructor's role is to facilitate as part of a team, stimulating students' liberation and responsibility. Constructed on our study, responses

from clinical instructors showed highest CLES+T total score responses was more than 95 % of the subject. Nursing teachers are involved in the CLE through collaboration with the clinical team and regular visits. In King Faisal hospital, clinical instructors are assigned to guide undergraduate nurses during their clinical placement; undergraduate nurses are provided with clinical education and supervision to meet the required objective. This study is congruent with one study conducted by Saukkoriipi et al., (2020) who stated that arranging supervision meetings with the clinical instructor during the practicum has been found meaningful.

Most of the students, more than 80 % from our study agreed and, felt that they had a fruitful type of supervision. This result is reliable to the conclusions of a study conducted in Greece by Dimitriadou M et al., (2015) who stated that from the students' perceptions, the CLE's efficacy was influenced by the type of supervision. Moreover, another study by Papastavrou et al., (2016) specified that those with efficacious supervision reported the uppermost satisfaction level among students in the CLE were not influenced by the length of clinical placement; however, this finding is unreliable from a study [2336](#) conducted by Warne T et al., (2010) on nursing students in nine European countries that students with lengthy placements were delighted.

Nurse turnover is a global concern and evidence shows that positive perceptions of the transitions and educational preparation are linked with better prospects to formulate the responsibilities obligatory of being a nurse during the practicum. Numminen et al., (2016) articulated that graduating nursing student who had never or only occasionally considered changing their career had more positive perceptions of their clinical placement.

## Conclusion

Approximately 90 % of nursing students positively perceive the practical learning environment at King Faisal Hospital and Research center in this study. Their perception of it accentuates the importance and requirement of the practical element of the educational development since the students will have to apply the theoretical knowledge received in their daily activities. Therefore, the attainment of practical skills and knowledge is central and a vigilant understanding of students' fulfillment of their clinical learning environments is crucial for designing effective teaching and learning objectives to meet quality standards of nursing education and



practice. Future research should embrace challenges that prevent students' effective, up-to-date learning and development in the CLE, exclusively given inpatient care's current medical and technological development. with a larger population in Saudi Arabia.

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