

RESEARCH ARTICLE

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Nursing Students' Views on the Clinical Learning Environment and Affecting Factors: A Cross- Sectional Study

Hemşirelik Öğrencilerinin Klinik Öğrenme Ortamına İlişkin Görüşleri ve Etkileyen Faktörler: Kesitsel Bir Çalışma

ABSTRACT

Aim

The aim of this study was to determine nursing students' opinions about the clinical learning environment of the Pediatric Nursing course and the affecting factors.

Method

In this descriptive and cross-sectional study consisted of 87 nursing students who were enrolled in the Pediatric Nursing course and completed their clinical practice. In this study, "Demographic Information Form" and "The Clinical Learning Environment, Supervision and Nurse Teacher Scale" were used.

Results

The highest sub-dimension of the Clinical Learning Environment, Supervision and Nurse Teacher scale of nursing students was nurse faculty member and the lowest sub-dimension was nursing care in the clinic. 59.8% of students are satisfied with the clinical learning environment. This study, academic achievement was found to be significant only in the clinical learning environment sub-dimension of the Clinical Learning Environment, Supervision and Nurse Teacher Scale and had no significant effect on the other sub-dimensions ($p>0,050$). It was found that the clinical practice supervisor variable was significant only in the faculty member score sub-dimension of the scale and was not significant in the other sub-dimensions.

Conclusions

This study shows that the students scored well in all subscales of the Clinical Learning Environment, Supervision and Nurse Teacher Scale and were satisfied with the clinical learning environment.

Keywords

Clinical education, clinical learning environment, nursing education, nursing students

ÖZ

Amaç

Bu çalışma hemşirelik öğrencilerinin Pediatri Hemşireliği dersinin klinik öğrenme ortamına ilişkin görüşlerini ve etkileyen faktörleri belirlemek amacıyla yapılmıştır.

Yöntem

Tanımlayıcı ve kesitsel tipteki bu çalışmada Pediatri Hemşireliği dersine kayıt yaptıran ve klinik uygulamalarını tamamlayan 87 hemşirelik öğrencisi oluşturulmuştur. Araştırmada "Demografik Bilgi Formu" ve "Klinik Öğrenme Ortamı, Süpervizyon ve Hemşire Öğretmen Ölçeği" kullanılmıştır.

Bulgular

Hemşirelik öğrencileri Klinik Öğrenme Ortamı, Süpervizyon ve Hemşire Öğretmen Ölçeğinin en yüksek puanı alan altboyutu hemşire öğretim elemanı, en düşük puanı alan altboyutu ise klinikteki hemşirelik bakımı olmuştur. Öğrencilerin %59,8'i klinik ortamdan memnundur. Bu çalışmada akademik başarı durumu Klinik Öğrenme Ortamı, Süpervizyon ve Hemşire Öğretmen Ölçeğinin sadece klinik öğrenme ortamı alt boyutunda anlamlı olduğu, diğer alt boyutları üzerinde anlamlı bir etkisi olmadığı bulunmuştur ($p>0,05$). Klinik uygulama sorumlusu değişkeni ölçeğin sadece öğretim elemanı puanı alt boyutunda anlamlı olduğu, diğer altboyutlarında anlamlı olmadığı belirlenmiştir.

Sonuç

Bu çalışmada öğrencilerin Klinik Öğrenme Ortamı, Süpervizyon ve Hemşire Öğretmen Ölçeğinin tüm alt boyutlarından iyi puan aldığı ve klinik öğrenme ortamından memnun olduğu saptanmıştır.

Anahtar Kelimeler

Klinik eğitim, klinik öğrenme ortamı, hemşirelik eğitimi, hemşirelik öğrencileri

What is known about the field

- Clinical learning environment (CLE) is an important topic of discussion in the nursing literature in recent years. Student nurses learn to improve their care and skills in the clinic during nursing education.
- Evaluating the CLE of nursing students is important in the professionalization process of nursing education.

Contribution of the article to the field

- Clinical learning environment is very important in terms of effective development of practical skills of student nurses in nursing education.
- It is predicted that the results of the research will lead to addressing the factors affecting the CLE of nursing students in all aspects, discussing and reviewing clinical education in the context of this problem, making improvements that will increase the satisfaction status of students to achieve their clinical practice goals, and planning and structuring the clinical practice environment well.

INTRODUCTION

Nursing education is an education consisting of theory and practice. Nurses have important roles in protecting and improving the health of the individual, family and society, and in healing and rehabilitating in case of illness. Nurse competencies and nursing education are effective in fulfilling these roles and providing effective and quality nursing services (1-3). In nursing education, while theoretical knowledge is acquired in the classroom, practical gains are made in the skills laboratory or clinical learning environment (2). Clinical education is very important in terms of the opportunities it offers to nursing students in the professionalization process (1-3). CLE carried out under the responsibility of faculty members and guiding nurses; It is a complex, dynamic and ever-changing environment that supports cognitive, emotional, psychomotor and interactive learning domains (2-5).

While nurse students learn to care and improve their skills in the clinic, they also gain individual self-confidence, respect, leadership and professional maturity (6-8). Therefore, it is extremely important to create a safe and supportive CLE where nurse students can learn in collaboration with each other, clinical nurses, other members of the healthcare team, patients and their relatives. The CLE helps nursing students develop their skills in many ways, such as being able to monitor patient care in all its aspects, allowing real-life experiences, watching role models, clinical

decision-making, crisis management, developing responsibility, working as a team member, providing individualized care, understanding the philosophy of the profession, and professional socialization (6-10). Clinical practice is an important component of nursing education in many parts of the world. In addition to supervisor, student feedback, setting, and participants, many variables (students assigned to clinical educator, average student class, number of students, practice center preference, type of center, distance from practice center, and type of service) can influence the CLE (2, 11). Therefore, nurse educators need to assess whether CLE are appropriate and take necessary measures for students' professional development (1, 5). This study was conducted to determine nursing students' opinions about the CLE of the Pediatric Nursing course and the affecting factors.

Research Questions

- What are the Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) subscale scores of nursing students?
- What are the factors affecting nursing students' CLES+T scale scores?

METHODS

Study Design

This study was conducted as descriptive and cross-sectional.

Participants and Sampling Methods

A total of 140 third-year nursing students who registered in the Pediatric Nursing course and completed their clinical practices in the spring semester of the 2022-2023 academic year at Harran University Health Science Faculty constituted the population of the research. 87 nursing students who registered for the Pediatric Nursing course, completed their clinical practice and agreed to participate in the research constituted the sample of the study. The sampling inclusion criteria were determined as follows; Must be registered in the Pediatric Nursing course, have completed the clinical practices of this course, have received a score between AA-DC in the course, and have volunteered to participate in the study. Students who failed the course and failed due to absenteeism were not included in the study.

Data Collection

In the spring semester of the 2022-2023 academic year (14 weeks), after the clinical practice, theoretical part and laboratory practice of the Pediatric Nursing course are given in the first three weeks, two days a week and 16 hours, for 8 weeks a total of 128 hours application has been carried out in the training and research hospital, state hospital and university hospital. Pediatric Nursing course is a 12-cred-

it course with six hours of theory and 12 hours of practice. During the first three weeks before the clinical practice (16 hours in total), laboratory practices were carried out during practice hours. In laboratory practices, communication with the child (4 hours), physical examination, system diagnostics, anthropometric measurements and vital signs (4 hours), drug and fluid applications (4 hours), sample collection and hygiene practices (4 hours) were performed in laboratory classroom. In laboratory applications, a checklist was prepared for each week's subject and the necessary instruments and materials were provided according to the checklist and made in the laboratory environment. The laboratory is organized to provide an environment where students can apply nursing practices such as hygienic care practices, oral and parenteral drug applications. In the laboratory, there are two neonatal patient models and a patient bed and equipment arranged close to the hospital environment. In the spring semester of the 2022-2023 academic year, due to the earthquake in the region on 06.02.2023, the number of weeks was reduced and the practice hours were increased, and 16 hours of practice was performed in the next 8 weeks, totaling 128 hours of clinical practice. Clinical practice was conducted in infant clinics, pediatric surgery service and pediatric emergency clinics. There was no restriction in the theoretical course hours and 6 hours of theoretical lectures were given for 11 weeks. Five faculty members (two faculty members, two lecturers and one research assistant) and 8 guiding nurses took part in the clinical practice of the students. Two faculty members at the faculty have received training certificates in accordance with the standards of the Nursing Education Association (HEMED), and the certificates are valid for five years. Guiding nurse training (16 hours) was provided by two faculty members in accordance with the standards of the Nursing Education Association. Guiding nurses were selected according to the standards of the Nursing Association. Guiding nurses working in practice are nurses who have at least two years of pediatric clinic experience, have a bachelor's degree and have received training in guiding nursing. To achieve the objectives of the course, the clinical practice was well structured and the instructors conducted the clinical practice with an average of 19 students and the nurse mentor with 15 students. In clinical practice, guiding nurses are assigned to the clinics where they work. During the implementation, the faculty member in charge of the course visited on the implementation day and provided the necessary support. Guiding nurses plan the treatment, care and education of children and their families. Guiding nurses share patients with students, counsel student nurses in making appropriate decisions and help students in terms of their professional development. All clinical applications were carried out in the pediatric ward of the hospitals. In practice, each student cared for a patient with different diagnoses for at least

three days and then prepared a nursing care plan. Nursing care plans were examined and checked by both guiding nurses and faculty members. Additionally, students' clinical skill development was monitored with a skill report card. One week after the application was completed, the purpose of the study was explained to the students who met the inclusion criteria by the researchers, and the questionnaires were administered face to face in the classroom. Data collection took an average of 20 minutes.

Data Collection Tools

"Demographic Information Form" and 'CLES+T Scale' were used in the study.

Demographic Information Form

It is a form consisting of 11 open-ended and multiple-choice questions about students' age, gender, grade point average and place of residence.

The Clinical Learning Environment, Supervision and Nurse Teacher Scale

The validity and reliability of CLES+T scale, which was developed by Saarikoski et al. (2008) to assess clinical education, was conducted by Iyigün et al. (2020). The scale consists of 35 items and five subscales, and the 18th item is not included in the scoring. Learning environment (9 items), Leadership Type of the Clinical Manager (4 items), Nursing Care in the Clinic (4 items), Content of the supervisory relationship (8 items), Nurse instructor who ensures the integration of theory and practice (9 items). The scale is scored on a 5-point Likert scale (1: strongly disagree; 5: strongly agree). Participants mark the option that best expresses their own thoughts. The scale does not have a total score but each subscale is scored among itself. Higher scores indicate a higher level of agreement with the statements. In other words, an increase in the score indicates a higher level of participation in the statements in the sub-dimensions of the scale. The total Cronbach alpha value of the scale was found to be .94, and the Cronbach alpha values of the subscales ranged between .760 and .933 (12). In this study, the total Cronbach's alpha value was calculated as .91.

Variables of the Study

The score that the participants receive from the subscales of the CLES+T scale is the dependent variable. The gender of the participants, their academic success, where they live, the person responsible for the practice, their satisfaction with the clinical environment and the place of clinical practice are the independent variables of the research.

Data Analysis

Data were analyzed with the Statistical Package for Social Sciences 23. Compliance with normal distribution was examined with skewness-kurtosis (± 2) coefficients (13). Independent variables affecting

the scale scores were examined with Linear Regression Analysis and the Enter method was used to include the independent variables in the model. The significance level was taken as $p < 0.050$.

Ethical Considerations

Before conducting the research, institutional permission was obtained from the Harran University Health Science Faculty. Subsequently, the researcher obtained written permission from the Harran University Ethics Committee (ethics committee approval dated 21.08.2023 and numbered 15). We complied with the principles of the Declaration of Helsinki in conducting the study. Participants' informed consent was obtained. In the study, written permission was obtained via e-mail from the authors who performed the validity and reliability of the scale. This study was written following the STROBE reporting guidelines.

RESULTS

Among the participants in the study, 72.4% of are women, the average age is 21.40 ± 1.10 (min.18 age-max. 26 age). 28.7% of the students are high achievers (those with a transcript grade of 3 or higher out of 4), 50.6% live with their families, and 49.4% live in a dormitory. 54% of the students practiced with a nurse guide, 46% of them practiced with an instructor, and 59.8% reported that they were satisfied with the clinical practice environment. The rate of those whose clinical practice is an infant service/clinic is 72.4%, the rate of those who have a pediatric surgery service/clinic is 10.3%, and the rate of those who have a pediatric emergency room/clinic is 17.2%. Table 1 includes descriptive statistics of CLES-T scale scores and items. In Table 1, the sub-dimension with the highest score from the CLES+T scale was the role of the nurse lecturer (3.97 ± 0.92) and the sub-dimension with the lowest score was nursing care in the clinic (3.67 ± 0.94).

Linear regression analysis was performed to examine the effect of some characteristics of the students on the subscale score of the scale. The results obtained according to sub-dimensions are presented in Table 2-6.

The independent variables affecting the Learning Environment score were found to be statistically significant with the regression model ($F=9.968$; $p < 0.001$). In the regression model created. 45.5% of the independent variables and the dependent variable were explained. It was found that the Learning Environment score of those who were satisfied with the CLE was 1.545 units higher than those who were not at all satisfied ($p < 0.001$). The independent variables of success and satisfaction with the CLE had a statistically significant effect on the learning environment score ($p < 0.05$). Other variables had no significant effect (Table 2; $p > 0.05$).

Table 1. Descriptive Statistics of scale scores and items

	Mean	S. Dev.
Learning Environment	3.83	0.93
1-It was easy to reach clinic staff	4.11	0.96
2-When my clinical practice/internship started, I felt comfortable going to the clinic.	3.85	1.17
3-I felt comfortable participating in discussions during clinic staff meetings (such as before a shift).	3.67	1.09
4-There was a positive environment in the clinic.	4.03	1.06
5-Clinic staff were generally involved in the supervision of students.	3.64	1.16
6-Clinic staff learned the students' names to get to know them.	3.70	1.24
7-There was sufficient learning situation in the clinic.	3.85	1.10
8-Learning situations were multidimensional in terms of content	3.68	1.20
9-The clinic can be considered a good learning environment.	3.94	1.15
Leadership Type of the Clinical Manager	3.82	0.98
10-The clinic nurse in charge considered the staff in his/her clinic as the main resource.	3.72	1.10
11-The clinic charge nurse was a member of the team	3.86	1.20
12-The feedback of the clinic nurse in charge can easily be considered as a learning opportunity.	3.90	1.06
13-The individual efforts of the employees were appreciated.	3.79	1.07
Nursing Care in the Clinic	3.67	0.94
14-The nursing philosophy of the clinic was clearly defined.	3.56	0.99
15-Patients were receiving individual nursing care.	3.59	1.12
16-There was no problem in the flow of information regarding patient care (such as sharing information about patients).	3.79	1.13
17-Nursing records (e.g., care plans, daily records of nursing activities) were understandable	3.72	1.10
Content of the Controller Relationship	3.84	0.96
19-My supervisor showed a positive attitude during the supervision.	4.13	0.96
20-I felt like I had individual control.	3.67	1.17
21-I constantly received feedback from my controller.	3.59	1.10
22-Overall, I am very satisfied with the inspection.	3.61	1.19
23-Supervision was based on equality and supported my learning.	3.77	1.15
24-There was a mutual interaction in the controller relationship.	3.85	1.07
25-Mutual respect and approval prevailed in the supervisory relationship.	4.13	1.01
26-A sense of trust prevailed in the supervisory relationship.	4.00	1.00
	Mean	S. Dev.
Nurse lecturer who ensures the integration of theory and practice	3.97	0.92
27-In my opinion, the nurse instructor had the ability to integrate theoretical knowledge and daily practice.	3.99	1.05
28-The nurse instructor was able to achieve the learning objectives of this clinical training.	4.02	0.99
29-The nurse instructor helped me reduce my gap between theory and practice.	3.87	1.13
30-The nurse instructor was as if he/she were a member of the nursing team.	4.05	1.01
31-The nurse faculty member was competent in transferring his/her educational expertise to the clinical team.	4.02	0.99
32-The nurse instructor and clinical team worked together to support my learning.	3.97	1.06
33-The joint meetings we had with the nurse instructor and the mentor (clinical educator) were a good experience for me.	3.95	1.03
34-I felt like we were colleagues in our meetings.	4.00	0.99
35-The focus of the meetings was on my learning needs.	3.89	1.04

Table 2. Examination of independent variables affecting the learning environment score using linear regression analysis

	β_0 (%95 CI)	S. Error	β_1	t	p	r^1	r^2	VIF
Constant	2.871 (2.349 - 3.393)	0.262		10.945	<0.001			
Gender (Female)			Reference					
Male	-0.04 (-0.38 - 0.3)	0.171	-0.019	-0.234	0.816	-0.017	-0.026	1.084
Achievement Status (Not Outstanding)			Reference					
Outstanding Achiever	-0.364 (-0.72 - -0.009)	0.179	-0.179	-2.039	0.045	-0.252	-0.225	1.217
Where I Live (With My Family)			Reference					
in dormitory	-0.272 (-0.571 - 0.026)	0.150	-0.148	-1.817	0.073	-0.141	-0.201	1.046
Practice Supervisor (Guide Nurse)			Reference					
Teaching staff	0.212 (-0.136 - 0.56)	0.175	0.115	1.213	0.229	0.336	0.136	1.410
Satisfaction with the Clinical Learning Environment (I am Not Satisfied at All)			Reference					
I'm undecided	0.745 (0.2 - 1.289)	0.273	0.362	2.724	0.008	-0.284	0.295	2.779
I'm satisfied	1.545 (1.057 - 2.033)	0.245	0.823	6.301	<0.001	0.602	0.581	2.691
Clinical Application Site (Infant Service / Clinic)			Reference					
Pediatric Surgery Service/Clinic	0.128 (-0.367 - 0.623)	0.249	0.042	0.515	0.608	0.108	0.058	1.067
Pediatric Emergency Service/Clinic	-0.167 (-0.604 - 0.27)	0.220	-0.068	-0.760	0.450	-0.049	-0.086	1.280

F=9.968, p<0.001, R²=%50.6, Corrected R²=%45.5. β_0 : Unstandardized beta coefficient. β_1 : Standardized beta coefficient. r^1 : Zero-order correlation. r^2 : Partial correlation

The regression model created with independent variables affecting the Clinical Manager's Leadership Type score was found to be statistically significant (F=7.616; p<0.001). In the regression model created, 38.1% of the independent variables and the dependent variable were explained. It was found that

the Clinical Manager's Leadership Type score of those who were satisfied with the CLE was 1,600 units higher than those who were not at all satisfied (p<0.001). There was no significant effect of other variables (Table 3; p>0.05).

Table 3. Examination of independent variables affecting the clinical manager's leadership type score using linear regression analysis

	β_0 (%95 CI)	S. Error	β_1	t	p	r ¹	r ²	VIF
Constant	2.931 (2.344 - 3.519)	0.295		9.934	<0.001			
Gender (Female)			Reference					
Male	-0.337 (-0.719 - 0.046)	0.192	-0.155	-1.753	0.084	-0.169	-0.195	1.084
Achievement Status (Not Outstanding)			Reference					
Outstanding Achiever	-0.177 (-0.577 - 0.223)	0.201	-0.082	-0.881	0.381	-0.110	-0.099	1.217
Where I Live (With My Family) in dormitory			Reference					
Practice Supervisor (Guide Nurse)	-0.222 (-0.558 - 0.113)	0.169	-0.114	-1.319	0.191	-0.094	-0.148	1.046
Teaching staff			Reference					
Satisfaction with the Clinical Learning Environment (I am Not Satisfied at All)	0.036 (-0.355 - 0.427)	0.197	0.019	0.184	0.854	0.261	0.021	1.410
I'm undecided	0.68 (0.068 - 1.293)	0.308	0.313	2.211	0.030	-0.315	0.243	2.779
I'm satisfied	1.6 (1.051 - 2.149)	0.276	0.807	5.799	<0.001	0.595	0.549	2.691
Clinical Application Site (Infant Service / Clinic)			Reference					
Pediatric Surgery Service/Clinic	0.101 (-0.456 - 0.658)	0.280	0.032	0.361	0.719	0.092	0.041	1.067
Pediatric Emergency Service/Clinic	-0.172 (-0.664 - 0.319)	0.247	-0.067	-0.697	0.488	-0.048	-0.079	1.280

F=7.616, p<0.001, R²=%43.9, Corrected R²=%38.1. β_0 : Unstandardized beta coefficient. β_1 : Standardized beta coefficient. r¹: Zero-order correlation. r²: Partial correlation

The regression model created with independent variables affecting the Nursing Care score in the clinic was found to be statistically significant (F=7.619; p<0.001). In the regression model created, 38.1% of the independent variables and the dependent variable were explained. It was found that those who were undecided about satisfaction in the clinical learning environment had a higher Nursing Care in

the Clinic score than those who were not satisfied at all ($\beta_1=0.357$; p=0.014). It was found that the Nursing Care score in the Clinic was 1.576 units higher for those who were satisfied with the CLE than for those who were not at all satisfied (p<0.001). There was no significant effect of other variables (Table 4; p>0.05).

Table 4. Examination of independent variables affecting the nursing care score in the clinic using linear regression analysis

	β_0 (%95 CI)	S. Error	β_1	t	p	r ¹	r ²	VIF
Constant	2.75 (2.185 - 3.314)	0.284		9.696	<0.001			
Gender (Female)			Reference					
Male	-0.099 (-0.467 - 0.268)	0.185	-0.048	-0.538	0.592	-0.069	-0.061	1.084
Achievement Status (Not Outstanding)			Reference					
Outstanding Achiever	-0.237 (-0.621 - 0.148)	0.193	-0.115	-1.225	0.224	-0.154	-0.137	1.217
Where I Live (With My Family) in dormitory			Reference					
Practice Supervisor (Guide Nurse)	-0.164 (-0.487 - 0.159)	0.162	-0.088	-1.010	0.316	-0.090	-0.114	1.046
Teaching staff			Reference					
Satisfaction with the Clinical Learning Environment (I am Not Satisfied at All)	0.09 (-0.286 - 0.467)	0.189	0.048	0.479	0.633	0.304	0.054	1.410
I'm undecided	0.747 (0.158 - 1.335)	0.296	0.357	2.525	0.014	-0.296	0.275	2.779
I'm satisfied	1.576 (1.048 - 2.103)	0.265	0.827	5.942	<0.001	0.579	0.558	2.691
Clinical Application Site (Infant Service / Clinic)			Reference					
Pediatric Surgery Service/Clinic	-0.193 (-0.729 - 0.342)	0.269	-0.063	-0.719	0.475	0.020	-0.081	1.067
Pediatric Emergency Service/Clinic	-0.441 (-0.914 - 0.031)	0.237	-0.178	-1.859	0.067	-0.130	-0.206	1.280

F=7.619, p<0.001, R²=%43.9, Corrected R²=%38.1. β_0 : Unstandardized beta coefficient. β_1 : Standardized beta coefficient. r¹: Zero-order correlation. r²: Partial correlation

The regression model created with independent variables affecting the Controller Relationship Content score was found to be statistically significant (F=5.002; p<0.001). In the regression model created, 27.1% of the independent variables and the dependent variable were explained. It was found that

the Content of Supervisory Relationship score of those who were satisfied with the CLE was 1.303 units higher than those who were not at all satisfied (p<0.001). There was no significant effect of other variables (Table 5; p>0.05).

Table 5. Examination of independent variables affecting the content of the supervisory relationship score using linear regression analysis

	β_0 (%95 CI)	S. Error	β_1	t	p	r ¹	r ²	VIF
Constant	3.095 (2.472 - 3.718)	0.313		9.889	<0.001			
Gender (Female)			Reference					
Male	-0.03 (-0.436 - 0.375)	0.204	-0.014	-0.149	0.882	-0.019	-0.017	1.084
Achievement Status (Not Outstanding)			Reference					
Outstanding Achiever	-0.241 (-0.666 - 0.183)	0.213	-0.115	-1.131	0.261	-0.152	-0.127	1.217
Where I Live (With My Family) in dormitory			Reference					
Practice Supervisor (Guide Nurse)	-0.185 (-0.541 - 0.171)	0.179	-0.097	-1.035	0.304	-0.111	-0.116	1.046
Teaching staff			Reference					
Satisfaction with the Clinical Learning Environment (I am Not Satisfied at All)	0.12 (-0.295 - 0.535)	0.208	0.063	0.576	0.566	0.260	0.065	1.410
I'm undecided	0.462 (-0.187 - 1.112)	0.326	0.218	1.418	0.160	-0.307	0.158	2.779
I'm satisfied	1.303 (0.72 - 1.885)	0.293	0.672	4.452	<0.001	0.533	0.450	2.691
Clinical Application Site (Infant Service / Clinic)			Reference					
Pediatric Surgery Service/Clinic	-0.236 (-0.827 - 0.355)	0.297	-0.076	-0.796	0.429	-0.028	-0.090	1.067
Pediatric Emergency Service/Clinic	-0.118 (-0.639 - 0.404)	0.262	-0.047	-0.449	0.655	-0.016	-0.051	1.280

F=5.002, p<0.001, R²=%33.9, Corrected R²=%27.1. β_0 : Unstandardized beta coefficient. β_1 : Standardized beta coefficient. r¹: Zero-order correlation. r²: Partial correlation

The regression model, in which independent variables affecting the nurse instructor score, which ensures the integration of theory and practice, was found to be statistically significant ($F=6.010$; $p<0.001$). In the regression model created, 31.8% of the independent variables and the dependent variable were explained. It was found that the score of

the instructor responsible for the practice was 0.565 units higher than that of the nurse guide ($p=0.005$). It was also found that the nurse instructor score of those who were satisfied with the CLE was 0.880 units higher than those who were not at all satisfied ($p = 0.002$). There was no significant effect of other variables (Table 6; $p>0.05$).

Table 6. Examination of independent variables affecting the score of the nurse faculty member, which ensures the integration of theory and practice, with linear regression analysis

	β_0 (%95 CI)	S. Error	β_1	t	p	r^1	r^2	VIF
Constant	3.355 (2.774 - 3.936)	0.292		11.496	<0.001			
Gender (Female)			Reference					
Male	-0.08 (-0.458 - 0.298)	0.190	-0.039	-0.421	0.675	-0.060	-0.048	1.084
Achievement Status (Not Outstanding)			Reference					
Outstanding Achiever	-0.194 (-0.59 - 0.202)	0.199	-0.096	-0.975	0.332	-0.117	-0.110	1.217
Where I Live (With My Family)			Reference					
in dormitory	-0.253 (-0.585 - 0.079)	0.167	-0.138	-1.517	0.133	-0.161	-0.169	1.046
Practice Supervisor (Guide Nurse)			Reference					
Teaching staff	0.565 (0.178 - 0.952)	0.194	0.307	2.906	0.005	0.458	0.313	1.410
Satisfaction with the Clinical Learning Environment (I am Not Satisfied at All)			Reference					
I'm undecided	0.222 (-0.384 - 0.827)	0.304	0.108	0.728	0.469	-0.359	0.082	2.779
I'm satisfied	0.88 (0.337 - 1.424)	0.273	0.471	3.226	0.002	0.511	0.343	2.691
Clinical Application Site (Infant Service / Clinic)			Reference					
Pediatric Surgery Service/Clinic	-0.211 (-0.762 - 0.34)	0.277	-0.070	-0.763	0.448	-0.031	-0.086	1.067
Pediatric Emergency Service/Clinic	-0.024 (-0.51 - 0.462)	0.244	-0.010	-0.099	0.922	-0.090	-0.011	1.280

$F=6.010$, $p<0.001$, $R^2=38.1$, Corrected $R^2=31.8$. β_0 : Unstandardized beta coefficient. β_1 : Standardized beta coefficient. r^1 : Zero-order correlation. r^2 : Partial correlation

DISCUSSION

In this study, the sub-dimension that received the highest score from the CLES+T scale was the role of the nurse instructor, and the sub-dimension that received the lowest score was the nursing care in the clinic. Similar to the current study, in a study conducted among Saudi nursing students, the role of nurse lecturer received the highest score (14). Contrary to this study, it was reported that the sub-dimension that received the highest score from the students' CLES+T scale was the supervision relationship (15-17), while the nurse instructor role dimension received the lowest score (2, 15, 16, 18). In addition, in some studies in the literature, it has been stated that the clinical manager receives the highest score in the leadership style dimension (2, 18-20). In the study conducted in four European Union countries (Czech Republic, Lithuania, Romania, and Hungary), it was stated that while clinical nursing care received the highest score, the learning environment dimension of the CLES+T scale in clinical practice received the lowest score (21). Compared to other studies using the CLES+T scale, in this study, contrary to the literature, "nurse educator providing a combination of theory and practice" received the highest score. It was thought to be related to meeting students' learning needs during clinical practice and providing students with a positive, encouraging and motivating CLE. In this study, it was found that the majority of students were satisfied with the CLE. A study found that 39.9% of third-year nursing students were satisfied with their CLE (1). In studies, similar to this study, it has been stated that nursing students are satisfied with their clinical learning environments (2, 14-18, 20-24). It is believed that the fact that have at least two years of pediatric clinic experience, counselor nurses have a bachelor's degree, have received guidance nursing

training, and are assigned to the clinics they work in, affects the satisfaction of the students. However, all clinical practices were carried out in the pediatric ward of the hospitals, following the skill report card. In addition, it is believed that the teaching staff in charge of the course visited and supported the students and guiding nurses on the application day, which also affected the nurse instructor scores.

Factors Affecting CLES-T Score

Nursing education is clinical practice-based. Nursing students develop their clinical competencies and professional identity through clinical practice (25). In this study, it was found that gender did not affect all subscale scores of the CLES+T scale. In the majority of studies in the literature, it has been stated that gender affects the subscale scores of the CLES+T scale (1, 14, 17, 26, 27). However, there are also studies in the literature similar to this study (6, 21).

In this study, academic achievement was found to be significant only in the CLE sub-dimension of the CLES+T scale and had no significant effect on the other sub-dimensions. In the study of Al-Anazi et al., (2019), it was found that academic success had no significant effect on the sub-dimensions of the CLES+T scale. A systematic review examined 21 studies and found that students' academic performance affected their clinical experience (27). In this study, place of residence (student living in dormitory or with family) did not have a statistically significant effect on all sub-dimensions of the CLES+T scale. Similar results to this study were found in the literature (6, 26).

In this current study, it was found that the clinical practice supervisor variable was significant with the faculty member subscale of the scale, but was not significant with the other subscales. In this study, it was

found that the instructor score was 0.565 units higher than that of the counselor nurses (Table 6; $p=0.005$). There are different results in the literature regarding the impact of the instructor on CLES-T scores. In some studies, it has been reported that it is more beneficial to work with the same instructor throughout the application (6, 16, 28). Ekstedt et al., (2019) reported that working with many instructors was more positive. In this study, similar to the literature, it was found that students working with the same instructor were more satisfied with their CLE than those working with different guiding nurses. In other studies, the leadership type of clinical managers, the supervisory relationship, the number of students in the clinic, and the participation of clinical professionals have been stated as significant factors affecting students' perceptions of the quality of the CLE (2, 19, 23).

In this study, a statistically significant effect was found between students' satisfaction with the CLE and all sub-dimensions of the CLES+T scale (Table 2-6). It was found that the learning environment score of those who were satisfied with the CLE was 1.545 units higher than those who were not at all satisfied (Table 2; $p < 0.001$). No studies examining this variable have been found in the literature. In this study, it is believed that factors such as the clinical practice of the course being well structured to achieve the practice goals, the average number of students per faculty member being appropriate, and the variety and number of cases being sufficient in the hospitals where the practice takes place, affect students' satisfaction with the CLE. Feedback and satisfaction with nursing students' clinical performance are critical to their effective learning in clinical practice (29). Students need a CLE that is supported, respected, and encouraged, and this is essential for students to master clinical practice skills (6).

In this study, no statistically significant effect was found on the clinical practice site scores of all subscales of the CLES+T scale. In a study, it was found that students' practice satisfaction levels in public hospitals were significantly higher than in private hospitals (20). In another study, the factor that had a significant relationship with nursing students' satisfaction levels towards the CLE was found to be the type of hospital where the last clinical practice was performed (primary care hospital) (1). In a systematic review, factors related to the clinical practice environment such as physical environment, other healthcare team members, material and equipment support, patients and their relatives, and the working system of the clinic were found to be factors affecting the clinical practice experiences of students (27). In this study, contrary to the literature, the reason why the clinics where the practice was performed did not affect the CLES+T score was thought to be related to the fact that pediatric clinics usually care for pediatric patients with the same medical diagnoses.

Limitations

In this study, the clinical environment was evaluated according to the individual characteristics of the students and the characteristics of the clinical educator; other variables could not be examined.

CONCLUSION

In this study, it was found that the students received good scores in all subscales of the CLES-T scale and were satisfied with the CLE. In this study, a statistically significant effect was found between students' satisfaction with the CLE and all sub-dimensions of the CLES+T scale. In this study, academic achievement was found to be significant only in the CLE sub-dimension of the CLES+T scale and had no significant effect on the other sub-dimensions. In this study, it was found that the clinical practice supervisor variable was significant with the faculty member subscale of the scale but was not significant with the other subscales. In this study, it was found that gender, place of residence (student living in dormitory or with family) and clinical practice site variables did not affect all subscale scores of the CLES+T scale. It is recommended to conduct studies to determine other factors such as clinical practice areas that affect clinical learning environments.

Ethical Considerations

Before conducting the research, institutional permission was obtained from the Harran University Health Science Faculty. Subsequently, the researcher obtained written permission from the Harran University Ethics Committee (ethics committee approval dated 21.08.2023 and numbered 15). We complied with the principles of the Declaration of Helsinki in conducting the study. Participants' informed consent was obtained. In the study, written permission was obtained via e-mail from the authors who performed the validity and reliability of the scale. This study was written following the STROBE reporting guidelines.

Author contribution

Study concepts: DK, FS, HK, Study design: DK, FS, HK, Data collection: DK, FS, HK, Statistical analysis: DK, FS, HK, Manuscript preparation: DK, FS, HK

Conflicts of interest

The authors declare no conflict of interest.

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The authors have no conflict of interest to declare.

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