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The Clinical Learning Environment, Supervision and the Nurse Teacher Evaluation Scale: Turkish Version

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Abstract

Aim: The aim of this study is to adapt the Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Scale to the Turkish language and culture.

Methods: This psychometric test was conducted in a nursing school in Ankara, Turkey, from April to June 2014. Convenience sampling was used. The sample of this study was 190 third- and fourth-year nursing students. The items of the scale were evaluated by Pearson correlation coefficient for correlation-based item analysis. Cronbach's alpha, test and retest analysis were used to measure reliability. Exploratory factor analysis and correlation analysis were performed to determine validity. Principal component analysis was used to analyze factor.

Results: The subscales' Cronbach's alpha values were varied between .760 and .933. A positive relationship was found between tests and retests points of the subscales ($P < .05$). Five factors were identified in the exploratory factor analysis. There was a meaningful correlation between subscale points of the Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Scale and the Clinical Learning Environment Scale ($P < .05$).

Conclusion: The Turkish version of the Clinical Learning Environment, Supervision and Nurse Teacher Evaluation Scale was validated and a reliable measurement tool. It can be used to evaluate clinical nursing education in Turkey.

KEYWORDS

clinical education, instrument development, learning environment, nurse teachers, Turkey

SUMMARY STATEMENT

What is already known about this topic?

- The Clinical Learning Environment, Supervision and Nurse Teacher Scale is commonly used to evaluate clinical nursing education.
- The Clinical Learning Environment, Supervision and Nurse Teacher Scale has been globally accepted and adapted to different languages and cultures.
- Measurement tools are required to effectively evaluate programs and the clinical environment, and the use of such tools allows for objective evaluations.

What this paper adds?

- Although different educational programs are followed in different parts of the world, the use of a global scale in the evaluation of nursing learning environments supports the development of a common understanding among nurse educators.
- The Turkish version of the scale is validated and a reliable measurement tool.
- It can be used to evaluate clinical nursing education in Turkey.

The implications of this paper for education:

- The use of scales facilitates measurement of the students' experiences related to the clinical learning environment, supervision and the nurse teacher's role.
- The Turkish version of the Clinical Learning Environment, Supervision and Nurse Teacher Scale measurement tool is capable of assessing nursing students' clinical environment, supervision and the nurse teacher in Turkey.
- The scale will contribute to the development of cooperation among Schools of Nursing at both a national and international level.

1 | INTRODUCTION

Nursing education in Turkey consists of 4600 h of theoretical, clinical, and field practice, according to the European Union criteria. Half of these hours must be spent in practical education. This type of training distribution is common for practically oriented professions, such as the nursing profession, and found in many parts of Europe (Lovric et al., 2016; Mueller, Mylonas, & Schumacher, 2018; Papastavrou, Dimitriadou, & Tsangari, 2016). It is very important to evaluate the quality and the environment of clinical education. At the same time, the evaluation of clinical education programs provides important data for the analysis of the nursing-education program as a whole. Measurement tools are required to effectively evaluate programs and the clinical environment, and the use of such tools allows for objective evaluations. Such tools offer opportunities to make useful comparisons among national and international nursing schools that apply similar educational programs as well as to create standards. Furthermore, objective measurement provides assistance in the evaluation of clinical education for those schools that run student exchange programs. These universally applicable instruments allow performing cross-cultural comparative studies, which are important for the advancement of nursing knowledge (Lovric et al., 2016).

In the literature, numerous studies are available regarding the evaluation of clinical education for student nurses. Qualitative studies that focus on this topic consider the students' experiences that are particularly related to specific clinical areas (Tastan et al., 2015). In reality, the clinical learning environment is multidimensional and comprises psychosocial, physical, and organizational factors. Some of these factors are created by patients, students, clinical inspections, and social environments (Adelman-Mullally et al., 2013; Henriksen, Normanny, & Skaalvik 2012). As a result, in some quantitative studies, different scales have been developed for multidimensional evaluations of clinical education (Chan, 2003; Dunn & Burnett, 1995; Lovric et al., 2015; Saarikoski & Leino-Kilpi, 2002). The clinical learning environment and inspection scale (CLES) is one of these scales and was developed by Saarikoski and Leino-Kilpi in 2002. This scale was revised in 2008 adding the dimension of "role of nurse teacher" and was renamed the Clinical Learning Environment, Supervision and Nurse Teacher Scale (CLES+T) (Saarikoski et al., 2008; Saarikoski et al., 2009). The nurse educator plays a key role in establishing the connections between clinical practice areas and the nursing school (Henriksen et al., 2012). Another important role of the nurse educator is to follow, observe, and evaluate the student's development (Papastavrou et al., 2010). The communication function of the nursing teaching staff with the clinical learning environment was integrated in the CLES+T Scale (Saarikoski et al., 2008). The CLES+T instrument was used mainly and extensively in Europe for evaluating the quality of clinical learning. To date, the CLES+T Scale has been globally accepted and adapted to different languages and cultures, that is, Swedish, Norwegian, Italian, Germany, Finnish, Spanish, Greek, Korean, and Slovenian. It has been demonstrated to be a valid and reliable tool among different international areas. Although different educational programs are followed in different parts of the world, the use of a global scale in the evaluation of nursing learning environments supports the development of a common understanding among nurse educators. However, there has been a lack of valid instruments in Turkish to evaluate a clinical learning environment for nursing students. The aim of this study is to adapt the CLES+T Scale to the Turkish language and culture. It is expected that this adaptation will contribute to the development of cooperation among schools of nursing at both a national and international level.

2 | METHODS

2.1 | Design

This was a psychometric study that translated and then tested the validity and reliability of this translated tool.

2.2 | Participants and setting

Convenience sampling was used for this study. It was conducted in a nursing school in Ankara, Turkey, from April to June 2014. The criteria for inclusion in the study were (a) being a third- or fourth-year nursing student and (b) volunteering to participate in the study. Third- and fourth-year students were included, because these students had long-term clinical practice in the school where the study was conducted. Third-year students are engaged in clinical practice for 7 wk for 4 d each week (a total of 224 h, 28 d) in second semester after completed theoretical course, whereas fourth-year students to go into clinical practice 4 d a week throughout the year (total of 920 h, 115 d). The size of the sample was determined according to the rule of having a sample size equal to 5 to 10 times the number of items, in the case of the adaptation of a scale for another culture (Hatcher, 1994). As a result, five times the number of items was used as a basis, and a minimum of 170 individuals, corresponding to 34 items, was the number used for the sample. Because of the possibility of dropouts, 20% more than the required number of participants was targeted to reach (n = 204). During the data collection process, 10 participants refused to study without giving any specific reason and four participants did not fill the survey completely. Therefore, the sample size of the study was comprised of 190 third- and fourth-year nursing students.

2.3 | Instruments

The data collection form was composed of three parts. The first part included four questions about pseudonym, birthdate, class year, and name of the clinic where the nursing student's internship was performed. The second section included the CLES+T Scale. The third part comprised the clinical learning environment (CLE) Scale used in the evaluation of criterion validity for the CLES+T Scale.

2.3.1 | CLES+T Scale

The CLES+T Scale of English version was developed by Saarikoski et al. (2008). The CLES+T Scale consists of 34 items and 5 subscales: 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. The scale was developed as a 5-point Likert-type scale with possible responses from (1) "absolutely disagree" to (5) "absolutely agree." There is no final total score; however, every subscale is individually rated. Higher numbers indicate a higher agreement with the statement higher. The total Cronbach's alpha reliability coefficient for the original CLES-T Scale was .90. The subscale coefficients were between .77 and .96 (Saarikoski et al., 2008).

2.3.2 | The CLE Scale

The CLE Scale was used in the evaluation of the criterion validity of the CLES+T Scale. The CLE Scale, which was developed by Dunn and Burnett (1995), is composed of 22 items and 5 subscales: staff-student relationships, nurse manager commitment, patient relationships, student satisfaction, and interpersonal relationships. The CLE Scale was developed as a 5-point Likert-type scale with possible responses from (1) "absolutely disagree" to (5) "absolutely agree." The Turkish validity and reliability of the CLE Scale was performed by Sarı (2001). In that study, the total Cronbach's alpha reliability coefficient for the CLE Scale was .82 (Sarı, 2001).

2.4 | Translation procedure

For language validity, the scale was translated from English to Turkish by three nursing teaching staff members independently who were fluent in both Turkish and English.

The translated text was then evaluated by the translators and two nursing teaching staff who were not involved in the translation process, and a common text was approved. The approved text was then translated again into the original language of the scale by three native speakers of English. The three reverse translations were examined by the researchers for consistency with the original version of the scale. No changes in the meanings of the expressions used in the scale were found in the reverse translations. A commission was formed to compare the original and the latest reverse-translated version of the scale; the commission was comprised of the researchers (five researcher), two English teachers, and two nursing teaching staff experienced in nursing education. The commission compared the translated and reverse-translated versions of the scale. The aim of this process was to compare the idiomatic, conceptual, semantic, and experimental equivalence of the original and the reverse-translated versions and to evaluate the intercultural equivalence of both versions. This commission confirmed the cultural equivalence of the final draft of the Turkish version of the scale. Content Validity Index was used to assess expert opinion (Polit & Beck, 2010). The content validity of 34-item scale rated by nine experts (nurse researcher, nurse educator, English teachers). The scale's Item-Content Validity Index (I-CVI) and Scale-Content Validity Index were calculated to be .96 and .95, respectively. Later, a pre-application of the scale was used with ten students who share similarities with the sample population in order to test whether the expressions used in the items were comprehensible, and the results determined that the scale was understandable.

2.5 | Data collection

The data collection form and information about the study were given to the volunteer nursing students in the classrooms. It took approximately 20 min to complete all the forms. A total of 62 out of the sample, who were available for a second time, were given the CLES+T

Scale 2 wk later. The students who participated in the study were asked to write a pseudonym on the forms for the scale in the first and second applications of the scale.

2.6 | Ethical considerations

Permission and approval for the adaptation of the scale into the Turkish language and culture were obtained from Mikko Saarikoski, the principal author of the scale, via e-mail communication. Permission was also granted from the ethical committee of the institution where the study was conducted. In addition, permission from the participants was collected.

2.7 | Statistical analysis

To analyse the data, SPSS version 15.0 (Chicago, IL) was used. Descriptive statistics were used in the evaluation of the sociodemographic data. The items of the scale were evaluated by Pearson correlation coefficient for correlation-based item analysis. Cronbach's alpha coefficient was used for reliability analysis of the scale. In test and retest analysis, points of the subscales were compared through the use of a paired sample test. In addition, the correlation between point averages of subscales of test and retest was calculated by paired correlation coefficients. In the evaluation of construct validity, factorial structure of the scale was investigated by principal component analysis and one of oblique rotation methods, promax (Kappa = 4) rotation. In order to provide the simple structure criteria proposed by Thurstone in 1947, the promax rotation is used to maximize the load of the items under a factor and to minimize the coefficient of correlation between the factors (Harman, 1976). Pattern matrix values showing the factor loads obtained from the principal component analysis are presented in the table. Prior to the factorial analysis, the difference between the correlation matrix and the unit matrix was evaluated by Bartlett's test of sphericity, while the measure of sampling adequacy was evaluated by the Kaiser-Meyer-Olkin (KMO) test (Pett, Lackey, & Sullivan, 2003). Three methods were used to find the number of factors. The first one is the Kaiser-Guttman rule, which counts eigenvalue values greater than 1 as a significant factor (Nunnally & Bernstein, 1994). The second is the variance description rate and the third is the Scree Plot which is proposed by Cattel (1966). For criterion validity, the correlation between subscale point averages of the CLES+T and CLE were investigated by Pearson correlation coefficient. The value of $P < .05$ was accepted as an indication of being statistically meaningful.

3 | RESULTS

All participants (n = 190) were female with a mean age of 21.87 ± 4.36; 45.3% of them were third-year and 54.7% were fourth-year nursing students.

3.1 | Reliability

Table 1 shows the corrected item-total point correlation coefficients of the CLES+T items, the Cronbach's alpha coefficient if the item was deleted, and the Cronbach's alpha values of the subscales. An investigation of the analysis of the items based on corrected item-total point correlations showed that the correlation coefficients of all items were between .482 and .850, and the Cronbach's alpha value did not rise when items were deleted. Having these values, none of the items were deleted from the scale according to the item analysis based on correlation.

The Cronbach's alpha values were found to be .851 for pedagogical atmosphere on the ward, .823 for leadership style of the ward manager, .760 for premises of nursing on the ward, .933 for supervisory relationship, and .915 for nurse teacher. The total Cronbach's alpha of the CLES+T in Turkish language was .94. In the correlation analysis for test and retest reliability (Table 2), a meaningful and positive relationship was found between the subscale points of the nursing students obtained from tests and retests ($P < .05$).

3.2 | Validity

As a result of the KMO test (KMO = .897) and Bartlett's test of sphericity (Bartlett's test, χ^2 (df = 561) = 4358.66, $P < .001$) sampling adequacy is met and correlation matrix was found to differ from the unit matrix, respectively. The results of the principal component analysis and promax (Kappa = 4) rotation are given in Table 3. According to the Kaiser-Guttman rule, which is used to find the number of factors, the number of factors which is eigenvalue values greater than 1 is 5. The five factors explained 62% of the total variance. Supervisory relationship accounted for 36% of response variance, role of the nurse teacher for 10%, premises of nursing on the ward for 7.7%, pedagogical atmosphere on the ward for 4.1%, and leadership style of the ward manager for 4.2%. Finally, to evaluate the accuracy of the number of factors, the Scree Plot was used (Cattel, 1966). It confirmed the five-factor structure (Figure 1). In the evaluation of the factorial structure of the scale, it was considered that the items belonging to each factor group had to have a factor load of at least .32 (Tabachnick & Fidell, 2013). In this regard, it was found that the items included in the factors of supervisory relationship, role of the nurse teacher, and leadership style of the ward manager coincided with the original version. On the other hand, it was found that the items 1 and 5 to 9 differed from the original CLES+T Scale (Saarikoski et al., 2008) and were shifted from the pedagogical atmosphere on the ward factor to the premises of nursing on the ward factor. This difference was determined to be within the acceptable limits, and, therefore, there was no need to make a change in the original form of the scale.

In testing criterion validity, correlation coefficients between the points obtained from the CLES+T subscales and the CLE subscales

TABLE 1 Item analysis and internal consistency of the CLES+T

Items	Corrected item AMPhyphen; total correlation	Cronbach$AMP $apos;s alpha if item deleted	Cronbach $AMP $apos;s alpha
Pedagogical atmosphere on the ward			.851
The staffs were easy to approach	.564	.837	
I felt comfortable going to the ward at the start of my shift	.503	.843	
During staff meetings (eg, before shifts) I felt comfortable taking part in the discussions	.482	.844	
There was a positive atmosphere on the ward	.626	.831	
The staffs were generally interested in student supervision	.617	.831	
The staff learned to know the student by their personal names	.493	.848	
There were sufficient meaningful learning situations on the ward	.677	.825	
The learning situations were multidimensional in terms of content	.664	.827	
The ward can be regarded as a good learning environment	.588	.835	
Leadership style of the ward manager			.823
The WM regarded the staff on her/his ward as a key resource	.602	.797	
The WM was a team member	.679	.763	
Feedback from the WM could easily be considered as a learning situation	.738	.733	
The effort of individual employees was appreciated	.573	.810	
Premises of nursing on the ward			.760
The wards nursing philosophy was clearly defined	.486	.745	
Patients received individual nursing care	.634	.661	
There were no problems in the information flow related to patientsAMPapos; care	.633	.665	
Documentation of nursing (eg, nursing plans, daily recording of nursing procedures, etc.) was clear	.502	.734	
Supervisory relationship			.933
My supervisor showed a positive attitude towards supervision	.767	.925	
I felt that I received individual supervision	.632	.935	
I continuously received feedback from my supervisor	.703	.930	
Overall I am satisfied with the supervision I received	.822	.920	
The supervision was based on a relationship of equality and promoted my learning	.829	.920	
There was a mutual interaction in the supervisory relationship	.833	.920	
Mutual respect and approval prevailed in the supervisory relationship	.748	.926	
The supervisory relationship was characterized by a sense of trust	.850	.919	
Role of the nurse teacher			.915
In my opinion, the nurse teacher was capable to integrate theoretical knowledge and everyday practice of nursing	.688	.907	
The teacher was capable of operationalize the learning goals of this clinical placement	.678	.908	
The nurse teacher helped me to reduce the theoryAMPhyphen;practice gap	.653	.909	
The nurse teacher was like a member of the nursing team	.753	.902	
The nurse teacher was capable to give his or her pedagogical expertise to the clinical team	.726	.904	
The nurse teacher and the clinical team worked together in supporting my learning	.794	.899	
The common meetings between myself, mentor and nurse teacher were comfortable experience	.749	.902	
In our common meetings I felt that we are colleagues	.712	.905	
Focus on the meetings was in my learning needs	.623	.912	

TABLE 2 Correlation analysis between test and retest points of the CLES+T subscales

	TestAMPhyphen;retest	
Subscales	***r****	***P****
Pedagogical atmosphere on the ward	.429	.001
Leadership style of the ward manager	.367	.003
Premises of nursing on the ward	.362	.004
Supervisory relationship	.294	.020
Role of the nurse teacher	.370	.003

Note: *Paired samples correlations.

were calculated (Table 4). The results showed that there was a meaningful correlation between subscale points of the CLES+T and the CLE ($P < .05$). As a result, it was determined that the CLES+T Scale satisfied criterion validity.

4 | DISCUSSION

In this study, a Turkish validity and reliability study of the CLES+T Scale, which was adapted interculturally to many countries, was performed. The Cronbach's alpha coefficient was used to determine whether a scale measured similar properties and was reliable.

TABLE 3 CLES+T Scale factor loadings

Items	Supervisory relationship	Role of the nurse teacher	Premises of nursing on the ward	Pedagogical atmosphere on the ward	Leadership style of the ward manager
My supervisor showed a positive attitude towards supervision	.757				
I felt that I received individual supervision	.552				
I continuously received feedback from my supervisor	.722				
Overall I am satisfied with the supervision I received	.891				
The supervision was based on a relationship of equality and promoted my learning	.986				
There was a mutual interaction in the supervisory relationship	.904				
Mutual respect and approval prevailed in the supervisory relationship	.746				
The supervisory relationship was characterized by a sense of trust	.928				
In my opinion, the nurse teacher was capable to integrate theoretical knowledge and everyday practice of nursing		.709			
The teacher was capable of operationalize the learning goals of this clinical placement		.712			
The nurse teacher helped me to reduce the theoryAMPhyphen;practice gap		.651			
The nurse teacher was like a member of the nursing team		.771			
The nurse teacher was capable to give his or her pedagogical expertise to the clinical team		.770			
The nurse teacher and the clinical team worked together in supporting my learning		.868			
The common meetings between myself, mentor and nurse teacher were comfortable experience		.843			
In our common meetings I felt that we are colleagues		.789			
Focus on the meetings was in my learning needs		.816			
The staffs were easy to approach			.456		
I felt comfortable going to the ward at the start of my shift				.548	
During staff meetings (eg, before shifts) I felt comfortable taking part in the discussions				.672	
There was a positive atmosphere on the ward				.598	

(Continues)

TABLE 3 (Continued)

Items	Supervisory relationship	Role of the nurse teacher	Premises of nursing on the ward	Pedagogical atmosphere on the ward	Leadership style of the ward manager
The staffs were generally interested in student supervision			.336		
The staff learned to know the student by their personal names			.676		
There were sufficient meaningful learning situations on the ward			.890		
The learning situations were multidimensional in terms of content			.757		
The ward can be regarded as a good learning environment			.845		
The wards nursing philosophy was clearly defined			.377		
Patients received individual nursing care			.511		
There were no problems in the information flow related to patientsAMPapos; care			.457		
Documentation of nursing (eg, nursing plans, daily recording of nursing procedures etc.) was clear			.526		
The WM regarded the staff on her/his ward as a key resource					.733
The WM was a team member					.773
Feedback from the WM could easily be considered as a learning situation					.956
The effort of individual employees was appreciated					.676
Eigenvalues	12.2	3.4	2.6	1.4	1.4
Total percentage and cumulative addition	36%	10%	7.7%	4.1%	4.2%
Total percentage of the model					62%

Note: Pattern matrix has been used.

Acceptable levels for reliability are .90 or above for physiological measures and .70 for behavioral scales. In addition, .70 or above is an acceptable level for a newly developed scale (Cortina, 1993). In this study, the total Cronbach's alpha of the scale was .94. In other studies performed in different countries, the total Cronbach's alpha levels were similarly high. The total Cronbach's alpha levels of different version were between .94 and .97 (Johansson et al., 2010; Lovric et al. 2016; Papastavrou et al., 2016; Sun-Hee, So, & Yae, 2018; Tomietto et al., 2012; Vizcaya-Moreno, Perez-Canaveras, De Juan, & Saarikoski, 2015; Zvanut et al., Lovrić, Kolnik, Šavle, & Pucer, 2018).

In this study, the Cronbach's alpha coefficients of subscales of CLES+T were found to be between .76 and .93. The Cronbach's alpha value obtained for all items indicates the total reliability of the questionnaire and the overall acceptance is .70 (Cronbach, 1951). As a result, the CLES+T is reliable. In the original scale, the Cronbach's alpha coefficients of subscales are between .77 and .96 (Saarikoski et al., 2008). The versions of the CLES+T in other languages, the Cronbach's alpha levels were between .75 and .96 for Swedish version, .85 and .96 for Norwegian version, .80 and .96 for Italian version, .82 and .96 for German version, .82 and .93 for New Zealand version, .81 and .96 for Greek version, .77 and .96 for Crotian version, and .78 and .94 for Korean version (Bergjan & Hertel, 2013; Henriksen et al., 2012; Johansson et al., 2010; Lovric et al., 2016; Papastavrou et al., 2016; Sun-Hee et al., 2018; Tomietto et al., 2012; Watson et al., 2014).

In the analysis of the items, the item-total point correlations must not be negative and must be at least .30 (Gozum & Aksayan, 2003). In this study, all correlations of coefficients of the items were between .48 and .85. Similarly, in Bergjan and Hertel (2013), Henriksen et al. (2012), Lovric et al. (2016), and Papastavrou et al. (2016) the coefficients of correlations of the items were .47 and .90, .37 and .74, .39 and .86, .38 and .71, respectively. In addition, in our study, all of the items of the scale were preserved because the Cronbach's alpha values did not increase if items were deleted. The test and retest reliability that reveals the stability power of the scale over time is an important step (Polit & Beck, 2004). In our study, there was a meaningful positive correlation between the subscale points of the nursing students obtained from the first and second applications of the scale. According to these results, the Turkish version of the CLES+T Scale produced consistent results over time and satisfied test and retest reliability.

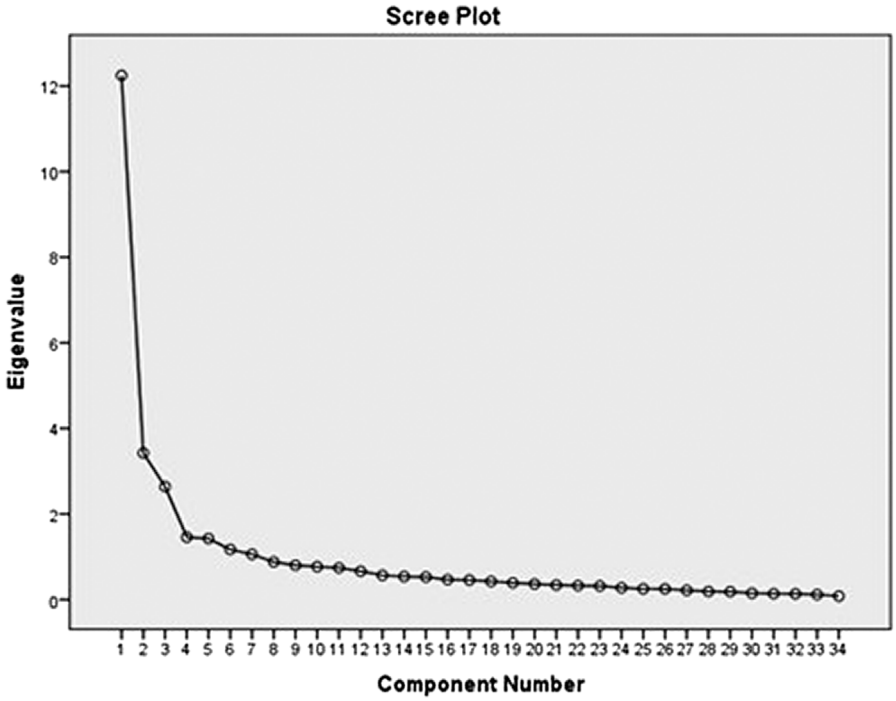

FIGURE 1 Scree Plot

TABLE 4 Correlation analysis between the CLES+T subscales and the CLE subscales

		Pedagogical atmosphere on the ward	Leadership style of the ward manager	Premises of nursing on the ward	Supervisory relationship	Role of the nurse teacher
CLE staff-student relationships	*r*	−.211	−.155	−.260	−.231	−.252
	P	.004	.033	<.001	.001	<.001
CLE nurse manager commitment	*r*	.001	−.030	−.049	−.091	−.190
	P	.984	.686	.498	.210	.009
CLE patient relationships	*r*	−.198	−.141	−.325	−.234	−.232
	P	.006	.052	<.001	.001	.001
CLE student satisfaction	*r*	−.089	−.038	−.093	−.189	−.151
	P	.223	.602	.202	.009	.037
CLE interpersonal relationships	*r*	.328	.289	.319	.321	.225
	P	<.001	<.001	<.001	<.001	.002
CLE	*r*	−.082	−.045	−.152	−.152	−.195
	P	.260	.540	.036	.036	.007

In this study, exploratory factorial analysis was used in evaluation of the structural validity of the scale. Accordingly, the items of the scale were loaded in five factors. In our study, the highest contribution to the total variance was achieved by the supervisory relationship factor (36%). Other studies presented similar results for the supervisory relationship (Bergjan & Hertel, 2013; Gustafsson, Blomberg, & Holmefur, 2015; Henriksen et al., 2012; Johansson et al., 2010; Lovric et al., 2016; Papastavrou et al., 2016; Saarikoski et al., 2008; Sun-Hee et al., 2018; Vizcaya-Moreno et al., 2015; Zvanut et al., 2018). Only in the Italian version, the strongest factor was the "pedagogical atmosphere" (Tomietto et al., 2012).

The items classified within the "supervisory relationship," "role of the nurse teacher," and "leadership style of the ward manager" subfactors of the CLES+T Scale were loaded into the same factors in parallel with the original scale (Saarikoski et al., 2008). Differently from the original CLES+T Scale, six items numbered 1 and 5 to 9 originally placed in "pedagogical atmosphere on the ward" were loaded into the "premises of nursing on the ward" factor. Similarly, in the adaptation of the scale into different cultures, some items were loaded into different factors from the original and even grouped under different names.

In the Norwegian version of the scale, similar to ours, the subscales "supervisory relationship," "role of the nurse teacher," and

"leadership style of the ward manager" remained the same as the original scale. Three items from the "pedagogical atmosphere on the ward" subscale and four items from the "premises of nursing on the ward" factor were combined to form a new factor named "premises of nursing and learning on the ward" (Henriksen et al., 2012). In the Swedish version of the CLES+T, the items numbered 9 to 17 and 31 to 34 were combined and named "the pedagogical and caring atmosphere on the ward" (Johansson et al., 2010). In the New Zealand version, items 9 to 17 and 30 to 34 were combined and named "connecting with and learning in communities of clinical practice," and as a result, the scale was reduced to four factors (Watson et al., 2014).

In the German version, items 17 to 19 were added to the factor "pedagogical atmosphere on the ward" (Bergjan & Hertel, 2013). In the Italian version, the factor "role of the nurse teacher" was divided into three subfactors, and the items were loaded into a total of seven factors (Tomietto et al., 2012). In the Spanish version of the scale; three items from factor 5 (premises of the nursing on the ward) and one item from factor 4 (leadership style of the ward manager) loaded on factor 2 (pedagogical atmosphere on the ward) (Vizcaya-Moreno et al., 2015). In the Croation version of the scale; "supervisory relationship," "role of nurse teacher," and "leadership style of the WM" were loaded on factor 1 (relationship mentor student) (Lovric et al., 2016).

In the Slovenian version of the CLES+T, all the items in the three factors, "supervisory relationship," "role of the nurse teacher," and "leadership style of the ward manager," were loaded as same with the original and ours (Zvanut et al., 2018). In the Slovenian version of the scale, two items from "pedagogical atmosphere on the ward" factor were loaded with different factors. The item 4 of the factor "pedagogical atmosphere on the ward" were loaded into the "supervisory relationship" factor, and the item 9 of the same factor, were loaded into the "leadership style of the ward manager." Also in the Slovenian version of the CLES+T, three items of "premises of nursing on the ward" were loaded into the same factor, the item numbered as 1, were loaded into the factor "leadership style of the ward manager." In the Turkish version of this scale, the item numbered as nine of the "pedagogical atmosphere on the ward" were loaded into the "premises of nursing on the ward" factor compared to Slovenian versions.

In the Greek version of the CLES+T Scale, according to the factorial analysis, the six-factor model was obtained. Items 7 to 9 from the pedagogical atmosphere items, loaded more significantly on the sixth factor. The authors preferred the five-factor solution in the Greek version (Papastavrou et al., 2016). In our study, it was evaluated that items 1 and 5 to 9, originally included in the subscale "pedagogical atmosphere on the ward," were loaded into "premises of nursing on the ward" with the idea that these items are related to nursing care and that this replacement is within the acceptable level. In addition, it was decided to make no changes in the original form of the scale and to use the factors in the Turkish version as in the original form.

In this study, apart from the existing studies that adapt the scale into different languages, criterion validity of the CLES+T Scale was performed; for this, CLE was used. A meaningful correlation was found between the subscale points of the CLES+T and the CLE. This result strengthens the validity of the scale in the evaluation of clinical nursing education.

4.1 | Limitations of the study

This study has some limitations. One of the limitations is the sample was comprised of only third- and fourth-year students at just one educational institution, which may limit generalizability. The other limitation of this study all participants were female because all of the students were boarding and girls at the time of the study.

5 | CONCLUSION

The results of this study show that the Turkish version of the CLES+T Scale is validated and is a reliable measurement tool. Therefore, use of this scale in the evaluation of clinical nursing education in Turkey is suggested. The Turkish version of the CLES+T also shows an international coherence; therefore, this scale would be valuable measurement tool to identify dissimilarities or similarities in educational systems in international research. Also, it is possible to make multinational studies to find effective approaches to improve students' clinical learning.

AUTHORSHIP STATEMENT

All listed authors meet the authorship criteria and that all authors are in agreement with the content of the manuscript.

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