Turkish Validity and Reliability of the Nursing Students' Rights Awareness Scale in Clinical Practice

Hemşirelik Öğrencilerinin Klinik Uygulamadaki Haklarının Farkındalığı Ölçeği Geçerlik ve Güvenirlik Çalışması

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ABSTRACT

Objective: To adapt the Nursing Students' Rights Awareness Scale into Turkish and test its validity and reliability.

Methods: This was a methodological study performed with 296 nursing students between 11 April and 10 June 2022 in the capital city of Turkey. Expert opinions were taken for the language and content validity of the scale. Exploratory and Confirmatory Factor Analyses were used to test construct validity. Cronbach's alpha coefficient was used for internal reliability. Test-retest was conducted using the Intra-Class Correlation and Spearman's rank correlation.

Results: The Content Validity Index was 0.87. The scale, which originally had three factors, was formed in a single-factor structure in the current study, and the factor loads ranged from 0.563 to 0.871. The variance explained for the single-factor structure consisting of 14 items was 63.7%. The Cronbach's alpha was 0.95. The Intra-Class Correlation value was 0.95 (95%CI= 0.938-0.956, *P*<.001) and the Spearman's rank correlation coefficient was 0.70.

Conclusion: The Turkish version of the Nursing Students' Rights Awareness Scale is a valid and reliable instrument.

Keywords: Clinical practice nursing research, human rights, nursing student, validity and reliability

ÖZ

Amaç: Bu çalışmanın amacı Hemşirelik Öğrencilerinin Klinik Uygulamadaki Haklarının Farkındalığı Ölçeğinin Türkçe geçerlik ve güvenirliğini test etmektir.

Yöntemler: Bu metodolojik çalışma, 11 Nisan-10 Haziran 2022 tarihleri arasında Türkiye'nin başkentinde, 296 hemşirelik öğrencisi ile yapılmıştır. Ölçeğin dil ve kapsam geçerliğini değerlendirmek için uzman görüşleri alınmıştır. Yapı geçerliğini değerlendirmek için açımlayıcı ve doğrulayıcı faktör analizleri yapılmıştır. İç güvenirlik, Cronbach alfa katsayısı ile değerlendirilmiştir. Test-tekrar test güvenirliği, grup içi korelasyon ve Spearman sıra farkları korelasyon katsayısı ile test edilmiştir.

Bulgular: Ölçeğin kapsam geçerlik indeksi 0,87 olarak bulunmuştur. Orijinalinde üç alt boyutu olan ölçek, Türkçe uyarlamasında tek alt boyutta toplanmış ve faktör yükleri 0,563-0,871 arasında değişmiştir. On dört maddeden oluşan tek faktörlü yapı için açıklanan varyans %63,7 idi. Ölçeğin grup içi korelasyon değeri 0,95 (95% Güven aralığı: 0,938-0,956, *P*<.001) ve Spearman sıra farkları korelasyon katsayısı 0,70 idi.

Sonuç: Hemşirelik Öğrencilerinin Klinik Uygulamadaki Haklarının Farkındalığı Ölçeğinin Türkçe versiyonu geçerli ve güvenilir bir ölçme aracıdır.

Anahtar Kelimeler: Klinik uygulama hemşirelik çalışması, insan hakları, hemşirelik öğrencisi, geçerlik ve güvenirlik

INTRODUCTION

Nursing education aims to gain the knowledge, skills, behaviors, and attitudes necessary for fulfilling the duties of the nursing profession. For this reason, nursing education is a professional process that includes the components of professional values, well-structured, theoretical, and clinical knowledge and skills, which will contribute to the development of students in many aspects.[1,2]

Clinical practice is an essential part of nursing education in developing personal, professional, and clinical skills.[3,4] Although it is also described as putting theoretical knowledge into practice, clinical practice contains various dynamics within itself. These deficiencies may be related to the clinical environment and healthcare personnel. These may include limited clinical teaching space, lack of clinical practice procedures, inadequate collaboration with clinical staff, inconsistencies between curriculum objectives and content, lack of prerequisites before clinical practice, lack of appropriate opportunities for learning, etc. In addition, regarding the teaching staff; their small numbers and different clinical evaluation criteria of the teaching staff may be included. Another important factor may be student-related factors such as students' motivation and perceptions of clinical practice.[5,6] In a study conducted in our country, students' emotions during clinical practice are affected psychologically, academically, physically, and socially. All these effects affect students' attitudes toward clinical practice.[7] In a study conducted with nursing students, it was determined that 49.8% of the students experienced difficulties with nurses (37.5%), hospitals (27.0%), and theoretical education (13.5%) during clinical practice and believed that these difficulties could be partially resolved (46.6%).[8]

Nursing students also experience many exposures, as well as the advantages and aspects of clinical practice that need to be developed. These exposures have led to the emergence of important rights for nursing students such as protection from infections, protection from clinical accidents, and awareness of their rights. In addition to these rights, it is inevitable that students should practice in an environment where they are not neglected, exposed to physical and psychological violence, and where the importance of human rights is known.[9,10] It is seen that there are legal regulations at the international level that prevent nursing students from harming patients in the clinic.[11] In our country (Official Gazette Date: 08.03.2010 Official Gazette Number: 27515) there are articles in the Nursing Regulations that require nurses to contribute to the education of students.[12] Although nursing students have the same basic human rights as all humans in clinical practice, university nursing departments have them practice by their clinical practice guidelines.

There are many studies in the literature on the difficulties experienced by nursing students in clinical practice.[13-15] The use of a valid and reliable measurement tool in studies is limited. For this reason, it is important to use the Nursing Students' Rights Awareness Scale developed by Park and Choi6 in different cultures. In our country, studies on the rights of nursing students and awareness of their rights are limited. Considering that especially professional compulsory courses are carried out with clinical practice, it becomes important to gain an assessment tool to evaluate the awareness of nursing students' rights in the clinical area.

AIM

The aim of this study was to conduct a Turkish validity and reliability study of the Nursing Students' Rights Awareness Scale in Clinical Practice.

Research questions/hypothesis
- Is the Turkish adaptation of the Nursing Students' Rights Awareness Scale in Clinical Practice a valid measurement tool?
- Is the Turkish adaptation of the Nursing Students' Rights Awareness Scale in Clinical Practice a reliable measurement tool?

METHODS

Study Design and Participants
The study is a methodological study conducted to determine the validity and reliability of the Nursing Students' Rights Awareness Scale adapted into Turkish. The study included 296 nursing students in the capital city of Turkey. The sample size is expected to be 5-10 times the number of items.[16] In this direction, the minimum value of participants to be reached for the validity and reliability study of the "Nursing Students' Rights Awareness Scale in Clinical Practice" consisting of 14 items was determined as 140 and completed with 296 students. The inclusion criteria were; being educated in the second, third, and fourth years, having done the clinical practice of at least one course specific to the nursing profession, and participating voluntarily in the study. Accordingly, 86.8% of the students were females, the mean age was 21.31±1.59, and 36.1% were third-year students. Approximately 63% of students live in student dormitories. More than half of the students (71.3%) stated their perceived income as medium (Table 1).

Table 1. Descriptive Characteristics of Nursing Students (*n*=296)	
Descriptive characteristics	n (%)
Age, Mean±SD	21.31±1.59
Gender	
Female	257 (86.8)
Male	39 (13.2)
Academic class	
Second year	99 (33.4)
Third year	107 (36.1)
Fourth year	90 (30.4)
Place of residence	
With family	83 (28.0)
In dormitory	186 (62.8)
Other	27 (9.2)
Perceived income	
Good	48 (16.2)
Moderate	211 (71.3)
Poor	37 (12.5)
Total days of clinical practice- Mean±SD	32.97±19.72
Perceived satisfaction level regarding nursing education	
Good	113 (38.2)
Moderate	168 (56.8)
Poor	15 (5.1)
Perceived satisfaction level regarding clinical practice	
Good	95 (32.1)
Moderate	170 (57.4)
Poor	31 (10.5)
Knowledge of one's rights in clinical practice	
Yes	144 (48.6)
No	41 (13.9)
Partially	111 (37.5)
Status of receiving information regarding rights in clinical practice	
Yes	196 (66.2)
No	100 (33.8)
SD; Standard deviation	

Data Collection

The Participant Information Form and Nursing Students' Rights Awareness Scale were used in the study. The language and content validity of the scale were evaluated. Students who agreed to participate in the study were invited to a classroom, given data collection tools, and waited until they were finished filling out the questionnaires. The time to fill out the questionnaires was 10-15 minutes. Data were collected between 11 April and 10 June 2022. Test-retest was used to evaluate the consistency of the scale. Data collection tools were filled in individually by the students.

Instruments

The Participant Information Form: The form was developed by researchers in line with the literature.[6,7,17] There were 11 questions about students' age, gender, academic class, place of residence, perceived income, clinical training duration, perceived satisfaction level from nursing education, perceived satisfaction level from clinical practice, knowing the rights they have in clinical practice, giving information about the rights in the pre-clinical term, the rights that students want to have in clinical practice.

Nursing Students' Rights Awareness Scale in Clinical Practice: It was developed by Park and Choi[6] to assess nursing students' awareness of their rights in clinical practice. The original scale consists of three factors with 14 items. Items are scored between 1 (strongly disagree) and 5 (strongly agree). The scale has no cut-off value. As the score increases, the awareness of nursing students also increases. While the Cronbach's alpha reliability coefficient of the scale was 0.92, it was determined as 0.92, 0.83, and 0.82 for three factors, respectively.[6]

Data Analysis

Expert opinions were taken for the language and content validity of the scale. Davis technique[18] was used for content validity. In the Davis technique, each item in the scale was evaluated in a four-point Likert type as (a) "very appropriate", (b) "appropriate but needs minor changes", (c) "needs major changes", and (d) "not appropriate".[18] The scale was sent to a total of 11 experts. The experts were academicians working in the Department of Nursing. Five of the experts were professors, three were associate professors, and three were assistant professors. The Content Validity Index (CVI) and Content Validity Ratio (CVR) were used to get opinions from the experts. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were tested for construct validity. EFA and CFA can be performed in scale adaptation studies.[19] For data analysis, Statistical Package for the Social Sciences (SPSS) 21.0 version and LISREL 8.81 package programs were used.

The suitability of the data for exploratory factor analysis was evaluated with Kaiser-Meyer Olkin (KMO) and Bartlett Sphericity tests. The factor structure and factor loads of the scale were determined by using principal component analysis. Chi-Square Goodness (χ^2/df), Comparative Fit Index (CFI), Goodness of Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), Adjusted Goodness of Fit Index (AGFI), Standardized Root Mean Square Error (SRMR), and Normed Fit Index (NFI) values were checked. Cronbach's Alpha internal consistency analysis, item-total score correlations, and intra-class correlation were used to test the reliability of the scale. In addition, descriptive statistics such as number, percentage, mean, and standard deviation were used in the study. The statistical significance level was taken as 0.05.

Ethical Considerations

The author was contacted through e-mail for the adaptation of the original scale to Turkish. Ethical approval (Date: 20.04.2022 Number: E.342513 Number: 2022-494) from Gazi University Ethics Committee and institutional permissions required for the study were taken for conducting the study. In addition, the students were informed about the aim of the study, and their informed consent was obtained. The students were given the message that the study was for scientific purposes only, no identity information of the students was needed, and their education would not be interrupted if they did not want to participate in the study. The study was conducted within the framework of the Declaration of Helsinki.

RESULTS

Students' Knowledge of Nursing Education

The mean of clinical training duration was 32.97±19.72 days. More than half of the students rated their overall satisfaction with nursing education (56.8%) and clinical practice (57.4%) as moderate. Approximately 49% stated that they knew about their right to clinical practice, and 66.2% stated that they were informed about their rights in clinical practice (Table 1). Also, the rights that students (n=144) want to have in clinical practice were listed as follows:

Being able to participate more actively in clinical practice and be supported to develop their skills (25%), Being able to practice individually, to be informed about clinical practices and expectations during clinical practice (5.6%), Seeing more clinical areas (3.5%), Seeing a fair, respectful and tolerant attitude from the team (28.5%), Being able to be evaluated objectively (2.1%), Being able to dress comfortably (2.8%), Being able to rest at appropriate intervals (8.3%), Being able to choose a patient, hospital and/or clinical area (6.25%), Refusal to perform duties unrelated to his profession (4.9%), Being able to complain (2.1%), Receiving salary, transportation and meal support (18.1%), Being able to express one's opinion freely (3.5%), Being able to study with instructors sufficiently (2.1%), Being able to give feedback about clinical practice (4.2%), Asking questions and getting answers (1.4%) and Maintaining personal security (2.8%) (Table 2).

Table 2. The Rights Students Want in Clinical Practice (n=144)

The rights that students want to have while doing clinical practice	n (%)*
Seeing a fair, respectful and tolerant attitude from the team	41 (28.5)
Being able to participate more actively in clinical practice and be supported to develop their skills	36 (25)
Receiving salary, transportation and meal support	26 (18.1)
Being able to rest at appropriate intervals	12 (8.3)
Being able to choose a patient, hospital and/or clinical area	9 (6.25)
Being able to practice individually, to be informed about clinical practices and expectations during clinical practice	8 (5.6)
Refusal to perform duties unrelated to his profession	7 (4.9)
Being able to give feedback about clinical practice	6 (4.2)
Seeing more clinical areas	5 (3.5)
Being able to express one's opinion freely	5 (3.5)
Being able to dress comfortably	4 (2.8)
Maintaining personal security	4 (2.8)
Being able to be evaluated objectively	3 (2.1)
Being able to complain	3 (2.1)
Being able to study with instructors sufficiently	3 (2.1)
Asking questions and getting answers	2 (1.4)

*Students gave more than one answer.

Validity

In order to ensure language validity, the original scale was sent to three lecturers who knew English and Turkish well, and they were asked to translate the scale into Turkish. After the translations received by the researchers were combined and a consensus was reached on the scale items, the scale items were translated back into English by a linguist who knew both languages at the native-language level. An expert who was fluent in both languages was consulted for the translated version of the scale into English and the original version in English. In line with the suggestions received, the items were reviewed and minor changes were made to the relevant items. The opinions of 11 experts were taken for the content validity of the scale. The content validity index was found to be 0.87. The CVR of the items ranged from 0.82 to 1.00 (Table 3).

Table 3. Exploratory Factor Analysis (n=296)

Items		Communality	Factor 1	CVR
Item5	The university must have a system to respond systematically to the clinical training institution by representing the students in case of incidents and accidents that occur during the clinical training period, and to advocate for the students.	0.759	0.871	0.82
Item8	The clinical instructor must provide attention and support in guiding the students during clinical training.	0.745	0.863	0.91
Item4	The clinical instructor must pay attention to solving the students' suggestions or requests.	0.728	0.853	0.91
Item7	I have the right to be free from verbal, physical, and sexual assault.	0.724	0.851	0.91
Item11	I have the rights to receive a systematic orientation from a unit manager at the beginning of the clinical training.	0.702	0.838	0.82
Item9	I have the rights to ask questions to the nurse during clinical training and hear the answers.	0.683	0.826	0.82
Item12	I have the rights to be addressed by a title that shows respect to the students (e.g. A student nurse).	0.681	0.825	0.82
Item6	I have the rights to receive information about infection status of patients in advance.	0.663	0.814	0.91
Item3	Universities must have a system implemented for students to report any disadvantages or injustices experienced immediately.	0.637	0.798	0.82
Item14	I have the right to have the mealtime guaranteed.	0.619	0.787	1.00
Item2	I have the right to be treated respectfully.	0.589	0.768	0.82
Item10	I have the rights to learn according to the standardized clinical training manual.	0.577	0.760	0.82
Item13	I have the rights to not perform tasks that are not directly relevant to the clinical training.	0.493	0.702	0.91
Item1	I have the right to receive information in advance on the response instructions in case of an incident or an accident.	0.317	0.563	0.91
Eigenvalue			**8.917**	
Explained total variance			**63.7%**	

CVR; Content Validity Ratio

The KMO value was 0.95, the Bartlett sphericity test value was found to be 3420,235 (*P*<.001) and showed that the data matrix and sample size were excellent in terms of factor analysis. Factor analysis was performed using the principal components method. A single-factor structure with an Eigenvalue above 1.0 and factor loads above 0.30 emerged. Accordingly, no item was removed from the data matrix as a result of exploratory factor analysis. The factor loads of the items varied between 0.563-0.871. The variance explained for the single-factor structure consisting of 14 items was 63.7%. As a result of the analysis, the common variance value explained by each item varied between 0.317-0.759 (Table3).

The suitability of the single-factor structure formed was evaluated by CFA. In this direction, a theoretical model was created and tested based on EFA. As a result of the analysis, modifications were made between items three and four, items six and seven, items seven and eight, and items six and 13, taking into account the correction indices (Figure 1). Fit indices of the resulting model; χ^2/df= 3.25, CFI=0.98, GFI=0.90, RMSEA=0.08, AGFI=0.85, SRMR=0.036, NFI=0.98. After confirmatory factor analysis of the items, the standardized factor loads were between 0.53-0.87, and the regression coefficients were between 0.29-0.75. Considering the Critical Ratio (CR) values, the values of items were statistically significant (*P*<.001) and ranged
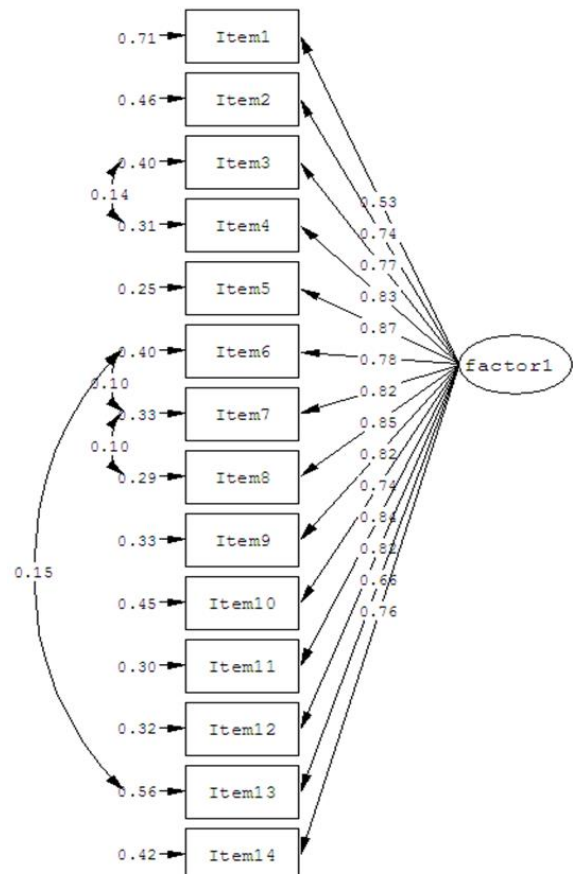
Figure 1. Confirmatory Factor Analysis

Reliability

The Cronbach's alpha was 0.95. Test-retest analysis was conducted with 99 students. Test-retest reliability was evaluated using Intra-Class Correlation (ICC). Accordingly, the ICC value of the 14-item scale with a single factor was found to be 0.95 (95%CI= 0.938-0.956, P<.001), and Spearman's rank correlation coefficient was 0.70 (P<.001) (Table 4).

Table 4. Reliability Analysis (*n*=296)				Cronbach's alpha	Test-retest reliability	
Items	Mean	SD	Item- Total correlation		ICC	95% CI
Factor 1				0.95	0.95	0.938-0.956*
Item 1	4.39	0.76	0.52			
Item 2	4.73	0.65	0.73			
Item 3	4.76	0.57	0.76			
Item 4	4.77	0.56	0.83			
Item 5	4.74	0.55	0.84			
Item 6	4.75	0.55	0.78			
Item 7	4.86	0.47	0.81			
Item 8	4.80	0.51	0.83			
Item 9	4.77	0.56	0.79			
Item 10	4.68	0.64	0.72			
Item 11	4.70	0.61	0.81			
Item 12	4.76	0.58	0.79			
Item 13	4.69	0.64	0.65			
Item 14	4.77	0.57	0.74			

*P<.001, *SD;* Standard Deviation

DISCUSSION

The transition between student and professional nurse can be facilitated through clinical experience. Students will get to experience what it's like in the profession and see if nursing aligns with their interests before committing to the clinical setting. Therefore, clinical practice should be seen as an integral part of nursing education. In clinical practice, which is indispensable for nursing education, situations that force students to struggle may arise.[20,21] In our study, students want to be supported in the clinical environment, know their rights in the clinical environment, and feel like part of the team. In different studies, it is seen that these expectations coincide with the difficulties experienced by students in clinical practice.[5-8] Students need to know their rights in order to benefit from clinical practices effectively and to adopt the clinic. There is no validity and reliability study of the scale in other languages. The results were discussed accordingly.

Validity is defined as the degree to which an instrument can accurately measure what it aims to measure without confusing it with any other characteristics.[22] Typically, to ensure the validity of a scale, experts are frequently consulted in the evaluation of content validity. The scale items are evaluated by the experts in the relevant field.[23] The Turkish version of items was evaluated by 11 experts in this study. A CVI is expected to be at least 0.80.[24] In the current study, the CVI values were between 0.82-1.00. It shows that the scale items represent the population that the research addresses.

Factor analysis was used to determine construct validity. The KMO coefficient and Bartlett sphericity test are used to determine the adequacy of the sample size.[25] A KMO coefficient should be more than 0.60.[26,27] In this study, the KMO value was 0.95, Bartlett sphericity test value was 3420,235 (P<.001). The sample size was sufficient for exploratory factor analyses. The CFA was tested to assess the goodness of fit indices. In the current study, the standardized factor loads were 0.53-0.87. The factor loads were in the desired range. In the current study, the fit indices of the model were also; χ^2/df= 3.25, CFI=0.98, GFI=0.90, RMSEA=0.08, AGFI=0.85, SRMR=0.036, NFI=0.98. The acceptable values of fit indices should be as follows: 3 < χ^2/d <5; 0.90 ≤ CFI ≤ 0.95; 0.90 ≤ GFI ≤ 0.95; 0.05 < RMSEA < 0.08, 0.90; 0.85 ≤ AGFI ≤ 0.90; 0.05 ≤ SRMR ≤ 0.10 and 0.90 ≤ NFI ≤ 0.95 [28,29]When the normal value ranges of the fit indices are examined, it is seen that the values are acceptable.

Reliability indicates the capacity of the measuring instrument to evaluate all aspects of the variable. A scale's reliability is generally evaluated with time constancy and internal consistency criteria.[30,31] The scale's internal consistency with Cronbach's alpha, should be above 0.70 to

be acceptable.[32] The Cronbach's alpha for the original scale was 0.92 and 0.95 in this study. Another reliability test is the examination of the test-retest results of the scale. The scale was administered to 99 students using the test-retest technique at 2-week intervals. The ICC values can yield values between 0 and 1. In our study, the ICC value was 0.95 (95%CI= 0.938-0.956, $P<.001$) and the Spearman's rho correlation coefficient was 0.70. These data showed that the scale is a consistent measurement tool against time.[33] Studies have shown that nursing students have difficulties in clinical practice. It is thought that using this scale is important in terms of increasing the awareness of nursing students through national and international studies.

Limitations

This study has some possible limitations. The first of these is that the research sample consists of students studying at a university. In addition, the fact that a specific measurement tool was not found to determine the scale's concurrent validity can be considered another limitation of the study.

This study was conducted to evaluate whether the scale is a valid and reliable tool that can be used in Türkiye. The scale originally consisted of three sub-dimensions with 14 items. As a result of analyses in this study, it has been determined that the scale can be used with a single factor. In addition, it is thought that validity and reliability studies can be conducted with different and larger numbers of students.

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