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TURKISH VALIDITY AND RELIABILITY STUDY OF THE PATIENT PARTICIPATION SCALE

HASTANIN BAKIMINA KATILIM ÖLÇEĞİ'NİN TÜRKÇE GEÇERLİK VE GÜVENİRLİK ÇALIŞMASI

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ABSTRACT

Objective: The aim of this study is to establish the Turkish validity and reliability of the Patient Participation Scale.

Method: This methodological study was conducted with 214 patients receiving outpatient or inpatient treatment in Turkey. Personal Information Form and Patient Participation Scale were used to collect the research data. Language equivalence, content validity and construct validity were performed to determine the validity of this scale. Within the scope of reliability analysis, Cronbach's alpha value and split-half reliability analysis were used to assess consistency.

Results: The content validity index score of this scale was determined as 1.0. The Barlett Sphericity Tests value was (2260.928, p<0.00) and the Kaiser-Meyer-Olkin (KMO) value was 0.86 and the data set of the scale was found to be suitable for factor analysis. The Cronbach's Alpha coefficient of the scale was found to be 0.90. As a result of the analysis, the Guttman Equivalent Halves Coefficient was calculated as 0.91 and the Spearman-Brown Correlation Coefficient was calculated as 0.92 and it was concluded that the reliability of the scale was at an acceptable level.

Conclusion: The study was concluded that the Turkish form of the Patient Participation Scale is a valid and reliable measurement tool for evaluating the process of participation in the care process in patients receiving outpatient or inpatient treatment.

Key Words: Care, Patient, Validity, Reliability

ÖZ

Amaç: Bu çalışmanın amacı, Hastanın Bakımına Katılım Ölçeği'nin Türkçe geçerlilik ve güvenilirliğini tespit etmekti.

Yöntem: Bu metodolojik çalışma, Türkiye'de ayakta ve yatarak tedavi gören 214 hasta ile gerçekleştirildi. Araştırma verilerinin toplanmasında Kişisel Bilgi Formu ve Hastanın Bakımına Katılım Ölçeği kullanıldı. Bu ölçeğin geçerliğin belirlenmesi için dil eşdeğerliği, kapsam geçerliği ve yapı geçerliği yapıldı. Güvenilirlik analizi kapsamında, tutarlılığı değerlendirmek için Cronbach alfa değeri ve split-half güvenilirlik analizi kullanıldı.

Bulgular: Bu ölçeğin, kapsam geçerlik indeksi puanı 1,0 olarak belirlendi. Barlett Küresellik Testleri değeri ise (2260,928, p<0,00) ve Kaiser-Meyer-Olkin (KMO) değeri 0,86 olarak belirlenen ölçeğin veri setinin faktör analizine uygun olduğu bulundu. Ölçeğin Cronbach Alfa katsayısı 0,90 olarak bulundu. Analiz sonucunda, Guttman Eş Değer Yarılar Katsayısı 0,91 ve Spearman-Brown Korelasyon katsayısı 0,92 olarak hesaplanmış ve ölçeğin güvenirliğinin kabul edilebilir düzeyde olduğu sonucuna ulaşıldı.

Sonuç: Araştırmada, Hastanın Bakımına Katılım Ölçeği'nin Türkçe formunun ayakta veya yatarak tedavi gören hastalarda bakım sürecine katılım sürecini değerlendirmek için geçerli ve güvenilir bir ölçüm aracı olduğu sonucuna varıldı.

Anahtar Kelimeler: Bakım, Hasta, Geçerlik, Güvenirlik

INTRODUCTION

The World Health Organization emphasizes the importance of holistic and patient-centered care in all health problems [1]; similarly, the World Medical Association and the Council of Europe state that patients have the right to information and decision-making in all treatment processes [1,2]. Studies show that greater patient involvement in treatment decision-making is associated with higher patient satisfaction, better adherence and more favorable clinical outcomes [2,3]. Considering these positive effects, patients are presently promoted to rest during the care process and actively participate in the decision-making process, and the concept of 'patient participation behavior in care' is gaining importance in the literature. [4]. Participatory behavior in patient care means that a patient actively participates in all processes that may have an impact on their health and well-being [3,5,6]. In this context, it is accepted that the patient's care participation behavior has the potential to improve the quality of health services and may positively affect patient satisfaction [7].

The patients' care participation behavior includes various components such as sharing knowledge and experiences, performing self-management activities, mutual trust relationship with health professionals, and sharing power or control [6,8]. Sharing information and experiences involves the patient learning about their health condition and asking questions about the treatment process [8,9]. Studies show that as patients' knowledge and health literacy levels increase, their engagement in care increases [2,10]. Sharing power or control involves health professionals collaborating in decision-making about the patient's care and gaining the ability to manage the patient's care [9,11]. It is observed that as patients' levels

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of knowledge and sense of control increase, they actively participate in care decisions [11]. The ability to perform self-management activities includes patient participation in physical and mental activities and encompasses patient safety practices today. The mutual relationship with health professionals, based on respect and trust, promotes patient participation, thereby improving patient safety and satisfaction [12,13]. Patients' involvement in health care is continuous during hospitalization and outpatient care. Patients interact with various health professionals while hospitalized and take an active role in managing their own recovery after discharge [6]. Patient engagement can increase health literacy, support treatment adherence, reduce medication errors, strengthen collaboration between health professionals and patients, and improve the quality and safety of patient-centered care. Therefore, assessing patients' engagement in care is essential [14,15]. Although there are scales that evaluate patients' emotional, behavioral and cognitive competencies or quality of care during their care [16,17], a comprehensive assessment tool is lacking. This study aims to examine the Turkish validity and reliability of the scale developed by Song and Kim (2023), which assesses patients' participation in care during both inpatient and outpatient treatment processes [6]. As a result of the study, a new assessment tool suitable for use in Turkish society will be presented, contributing to future scientific studies.

METHOD

Study Design

The research is a validity and reliability study designed using a methodological approach.

The research was conducted on online platforms between October 15, 2023, and January 15, 2024. An anonymous online survey was hosted on the Google Forms platform (Google LLC, Mountain View, California, USA) and shared to various groups via social media sources, including Facebook, WhatsApp, Instagram, and email.

Participant

The research population consisted of individuals with hospitalization and outpatient treatment experience in Turkey. A non-probability sampling method was used for the present study. One of the most basic and straightforward non-probability methods for recruiting online participants is known as 'river sampling,' which is also referred to as intercept sampling or real-time sampling. This technique involves directing potential participants to a survey via a link placed on a webpage, in an email, or in other locations where it is likely to attract the attention of individuals within the target audience [18]. For validity and reliability studies, it is recommended that the sufficient sample size for data analysis be between 5 to 40 times the number of items in the measurement tool [19,20]. In accordance with this information, the study originally planned to include 210 participants, intending to involve 10 participants per item for validity and reliability analysis of the scale. Ultimately, the research was conducted with 214 participants. When the inclusion criteria are examined, it is observed that the original study included all participants who had experience in inpatient or outpatient treatment [6]. Therefore, the inclusion criteria were to volunteer to participate in the study, to be over 18 years of age, and to have experience in inpatient or outpatient treatment.

Outcome Measures

Data were collected using the Participant Information Form and the Patient Participation Scale.

Participant Information Form: Researchers developed this form to evaluate the participants' age, gender, education level, marital status, employment status, income status, and presence of chronic disease.

Patient Participation Scale: The Patient Participation Scale was developed by Song and Kim in 2023 to measure patients' participation in healthcare. The original structure of the scale consists of 21 items and 4 sub-dimensions (Sharing knowledge and experience sub-dimension (1-8), Independent realization of self-management activities sub-dimension (9-15), Establishing a mutual trust relationship sub-dimension (16-19) and Participating in the decision-making process sub-dimension (20,21). The scale is a five-point Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). The lowest score is 21 and the highest score is 110. It is interpreted that as the scale score increases, the total Cronbach alpha value of the scale is 0.92 and the Cronbach alpha values of the sub-dimensions are calculated between 0.64-0.88 [6].

Validity and Reliability Stages of the Patient Participation Scale

Language Equivalence: Translation and back-translation technique was used to ensure language equivalence of the scale. The scale was translated from English to Turkish by two academic nurses who were fluent in English. Then, the translations were examined by the researchers, and a consensus was reached. The scale, which was translated into Turkish, was translated back into English by two academic nurses who were fluent in English. The literature emphasizes the importance of cultural adaptation and mastery of health literature in scale retranslations and therefore, it is important that retranslation is performed by people who have a good command of culture and literature [21]. Again, the translations were reviewed by the researchers, resulting in a consensus and confirming the equivalence of the scale.

Content Validity: The content validity of the scale was assessed using the Davis technique. According to the Davis technique, each item on the scale was evaluated by the experts as “(1) Not appropriate”, “(2) Seriously revised”, “(3) Slightly revised”, “(4) Appropriate”. After collecting opinions from all experts, the sum of the options “slightly revised” and “appropriate” was divided by the total number of experts and the content validity index (CVI) were calculated [22]. In order to evaluate the content validity of the scale, it was presented to the opinion of 5 faculty members who are experts in the field of nursing (2 mental health nursing specialists and 3 internal medicine nursing specialists). The literature suggests that a CVI score above 0.80 indicates adequate content validity [18].

Construct Validity: Kaiser-Mayer-Olkin (KMO) (>0.80) and Bartlett's sphericity test ($p<0.05$) were used to determine the suitability and adequacy of the data for factor analysis. First, confirmatory factor analysis (CFA) was used to evaluate the factor analysis of the scale. The fit adequacy of the CFA model was tested with the maximum likelihood method and χ^2/SD, RMSEA, SRMR, IFI, AGFI, CFI, and GFI indices [22,23]. Exploratory factor analysis (EFA) was used to determine the structure determined in the current sample. The Principal Axis extraction and varimax rotation techniques were utilized to determine the EFA factor analysis [22].

Reliability: Cronbach's alpha, split-half, and item analysis were employed to assess the reliability of the scale. A Cronbach's alpha coefficient of 0.70 or above was considered to indicate sufficient internal consistency of the scale. In the split-half method, the measurement tool's items were divided into two groups: odd-numbered and even-numbered items. The reliability levels of these groups were evaluated using the Spearman-Brown Correlation Coefficient and the Guttman Split Halves Correlation Coefficient, and reliability was considered sufficient if both coefficients were above 0.70. During item analysis, item-total correlation analysis was conducted to examine each item's relationship with the total score of the scale. It was deemed essential that each item's correlation value exceeded +0.25 and was positive [22].

Data Collection

Research data were collected online (Facebook, WhatsApp, Instagram, and email) using Google Forms. Participants who agreed to contribute to the study were sent a Google Forms link via WhatsApp and email. These participants shared the link via Facebook, WhatsApp, Instagram, and email, enabling more participants to become involved

in the study. In this way, volunteer participants clicked on the link and answered the research questions.

Ethical Approval

The author of the patient participation scale was contacted via e-mail, and necessary permissions were obtained for validity and reliability analysis. Conducting the research was approved by the Sakarya University of Applied Sciences Ethics Committee (date: 04.08.2023 and approval number: 34/7). Before starting the research, an informed consent form was presented to the participants, and their informed consent was obtained. Participants who ticked the check box answered the research questions.

Statistical Analysis

The SPSS 23.0 and AMOS 23.0 programs were used to analyze the data. Statistics such as percentage, mean, and standard deviation were used in the analysis of descriptive data. The scale's content validity was evaluated using the CVI and Davis techniques. Content validity of the scale was assessed using the CVI and Davis techniques. Construct validity was evaluated through CFA and EFA. Reliability analysis involved calculating Cronbach's alpha coefficient, employing the split-half method, and assessing item-total correlations to ensure validity and reliability of the scale.

RESULTS

The average age of the participants is 37.2±14.6 years. 76.2% are women, and 61.2% have a bachelor's degree. 53.3% are married, 63.1% are unemployed, 58.4% have income equal to expenses, and 54.7% have a chronic disease. Among participants with chronic diseases, the most common chronic diseases were heart failure (52.3%), Mediterranean fever (51.9%), hypertension (48.1%), COPD-asthma (46.7%), or diabetes (45.8%). Individuals with chronic diseases could have more than one disease. Participants who stated that they applied to a health board in the last 6 months constitute 70.6% of the sample, 71% who stated that the last department they applied to was a polyclinic, and more than half (62.1%) of those who stated that they had no inpatient experience (Table 1).

Validity

The translation-back-translation technique was used to ensure language equivalence of the scale. After the translation and back-translation technique, the researchers reached a consensus among themselves and the Turkish version of the scale took its final form. Then, the scale was presented to five experts to evaluate its content validity. Davis technique and CVI were used to evaluate the scale's content validity [18], and no items were removed from the scale at this stage. CVI value was found to be 1.00.

The construct validity of the scale was evaluated with EFA and CFA. KMO (0.86) test and Bartlett's sphericity test (2260.928, p<0.00) were used to evaluate the suitability of the data for factor analysis. If the KMO value is greater than 0.60 and the Bartlett test of sphericity is significant, the data are interpreted as suitable for factor analysis, and the sample size is sufficient. CFA was applied to the scale, whose original structure consisted of four factors, and its suitability in this study was tested. DFA was tested with χ^2/SD, RMSEA, SRMR, CFI, IFI, AGFI, and GFI fit index values [19,20]. As a result of the CFA analysis conducted with the sub-dimensions of the original scale, most of the fit index values of the original four-factor structure of the scale were found to be below acceptable limits (Table 2). When the covariance of the factors in the original scale was examined, it was found that there was no significant relationship between the fourth factor (F4) and the other factors (F1, F2, and F3). In addition, it was thought that the 10th item in the fourth factor could be removed because its sub-factor predictability was insignificant. Considering all these situations, removing items 9 and 10 from the fourth factor was decided.

Table 1. Descriptive characteristics of the participants (n = 214)

	Mean±SD
Age	37.2±14.6
Gender	**n (%)**
Woman	163 (76.2)
Man	51 (23.8)
Educational Status	
Primary school	26 (12.1)
Middle school	9 (4.2)
High school	32 (15.0)
Bachelor	131 (61.2)
Undergraduate (BSc) and over	16 (7.5)
Marital status	
Married	114 (53.3)
Single	100 (46.7)
Working Status	
Working	79 (36.9)
Not working	135 (63.1)
Income status	
Income is less than expenses	60 (28.0)
Income equals expenses	125 (58.4)
Income exceeds expenses	29 (13.6)
Presence of chronic disease	
Yes	97 (45.3)
No	117 (54.7)
Disease types of people with chronic diseases†	
Heart failure	112 (52.3)
Mediterranean Fever	111 (51.9)
Hypertension	103 (48.1)
COPD/Asthma	100 (46.7)
Diabetes	98 (45.8)
Last time to apply to a health institution	
last 6 months	151 (70.6)
6 months- 1 year	35 (16.4)
1-3 years	17 (7.9)
more than 3 years	11 (5.1)
Department last applied to in the hospital	
Emergency room	53 (24.8)
Outpatient Service	152 (71.0)
Inpatient Service	9 (4.2)
Inpatient experience time	
No	133 (62.1)
Daily	14 (6.5)
1 day	17 (7.9)
2-3 days	24 (11.2)
4-7 days	9 (4.2)
more than 7 days	17 (7.9)

SD: Standard deviation; †: More than one option is marked.

Table 2. Confirmatory factor analysis results of the scale (n = 214)

Index†	Good Fit	Acceptable Value	Analysis Result
$\chi 2$/sd	<2	<5	3.240
RMSEA	<0.05	<0.08	0.103 (0.09-0.11; p < 0.00)
SRMR	<0.05	<0.10	0.989
CFI	>0.95	0.90-0.95	0.824
IFI	>0.95	0.90-0.95	0.826
AGFI	>0.95	0.90-0.99	0.721
GFI	>0.95	0.85-0.95	0.786

†χ^2/sd: Chi-square (χ^2) value by the degree of freedom; RMSEA: Root Mean Square Error of Approximation; SRMR: Standardized-Root Mean Square Residual; CFI: Comparative Fit Index; IFI: Incremental Fit Index; AGFI: Adjustment Goodness of Fit Index; GFI: Goodness of fit Index.

EFA was applied to the scale to determine the factor structure suitable for our culture and language. Principal Axis was used as the extraction method when determining the factor structure. Varimax was used as the rotation technique. The EFA evaluation found that the factor loadings varied between 0.436 and 0.850, and three suitable factors with eigenvalues greater than 1 were revealed (Table 3). In this three-factor structure, which was different from the original scale, only two items (5th and 12th items) were changed, and the structure validity was tested by preserving the factor naming of the original scale. The three-factor structure explained 58.28% of the total variance. The literature

Table 3. Factor structure of the patient participation scale

	Sharing knowledge and experience	Performing self-management activities independently	Establishing a mutual trust relationship
S1	0.661		
S2	0.766		
S3	0.768		
S4	0.588		
S5		0.589	
S6	0.692		
S7	0.581		
S8	0.623		
S11		0.622	
S12	0.576		
S13		0.596	
S14		0.436	
S15		0.724	
S16		0.781	
S17		0.656	
S18			0.734
S19			0.813
S20			0.850
S21			0.811

states that it is acceptable for the explained variance to be between 0.40 and 0.60 [19,22]. In the new version of the scale, which consists of a total of 19 items, the sub-dimension "Sharing knowledge and experience" consists of 8 items (1-4, 6-8,12), and the sub-dimension "Performing self-management activities independently" consists of 7 items (5,11,13-17), it was determined that the "Establishing a relationship of mutual trust" sub-dimension consists of 4 items (18-21).

Reliability

Internal consistency analysis (Cronbach's alpha reliability coefficient), split halves and item analysis were used to evaluate the scale's reliability. The Cronbach's alpha reliability coefficient of the scale was found to be 0.90, the sub-dimension of sharing knowledge and experience was 0.86, the sub-dimension of performing self-management activities independently was 0.82, and the sub-dimension of establishing a mutual trust relationship was 0.87. These findings show that the scale's internal consistency is at a good level. This study also used the equivalent halves method to evaluate reliability. In the equivalent halves method, the measurement tool is divided into two equal halves, and the equivalence between the two halves is examined. As a result of this examination, the existence of a significant and high correlation between the measurement results of the quasi-scales reveals that the internal consistency reliability of the scale is high. In this study, the scale items were divided into two equal halves, odd and even, and the equivalence between the two halves of the scale was analyzed.

Table 4. Scale item means, standard deviations, item whole correlation coefficient, and Cronbach alpha reliability coefficient when item deleted (n = 214)

		Mean	SD	Item overall correlation coefficient	Cronbach alpha reliability coefficient when the item is deleted
1.	I tell the healthcare professionals about my current condition and symptoms in detail.	4.52	0.69	0.51	0.88
2.	I inform the healthcare professionals if new symptoms occur or existing symptoms change.	4.38	0.74	0.55	0.88
3.	I inform the healthcare professionals of specific information to refer to for my treatment.	4.56	0.58	0.57	0.88
4.	I tell the healthcare professionals how I am managing my disease.	4.35	0.71	0.61	0.88
5.	I check with the healthcare professionals whether the information and knowledge I have acquired (food, medications, and treatment methods, etc.) are correct.	4.24	0.76	0.62	0.88
6.	I ask the healthcare professionals any questions I may have about the disease or the treatment.	4.35	0.71	0.55	0.88
7.	I ask for further explanation if I do not understand the healthcare professional's explanation.	4.35	0.78	0.55	0.88
8.	I listen carefully to the healthcare professional's explanation.	4.63	0.49	0.54	0.88
11.	I consult with the healthcare professionals if I find a more suitable alternative during the treatment process.	4.36	0.65	0.46	0.88
12.	I check my vital signs (blood pressure, pulse rate, body temperature, and respiration rate) or test results and compare them with previous results.	4.65	0.52	0.54	0.88
13.	I observe whether new symptoms occur or existing symptoms change.	4.36	0.75	0.68	0.88
14.	I check if my treatment proceeds according to the guided schedule.	4.16	0.87	0.47	0.88
15.	I comply with the infection prevention activities, such as hand washing (hand hygiene).	4.03	0.99	0.60	0.88
16.	I comply with the fall prevention activities given by the hospital	4.21	0.70	0.53	0.88
17.	I monitor whether the healthcare professionals identifies the patient before performing examination, medication, or tests.	3.96	0.81	0.52	0.88
18.	I monitor whether the healthcare professionals washes their hands (hand hygiene) before performing any tests, medications, or treatments.	3.83	0.91	0.61	0.88
19.	I believe that my healthcare professional is well aware of my condition and treatment progress.	3.81	0.91	0.52	0.88
20.	I think the healthcare professionals respects me.	4.52	0.69	0.58	0.88
21.	I think the HCP listens to me.	4.38	0.74	0.54	0.88
F1		35.62	3.88		
F2		30.09	3.91		
F3		15.83	2.86		
Total		81.56	8.87		

SD: Standard deviation.

As a result, the Spearman-Brown Correlation Coefficient (0.92) and the Guttman Equivalent Halves Coefficient (0.91) were calculated. In order for the scale to be interpreted as reliable, the Spearman-Brown Correlation Coefficient must be >0.70, and the Guttman Equivalent Halves Correlation Coefficient must be >0.70Therefore, the reliability of this scale was found to be at an acceptable level. When the item-total correlation coefficients of the scale are examined, the item-total correlation coefficients are expected to be positive and greater than +0.25 [22]. When looking at this study, it was seen that all item correlation coefficients were between +0.46 and +0.68 (Table 4). Additionally, when the items of the scale were examined, it was found that there was no significant increase in the Cronbach Alpha reliability coefficient if the items were removed.

The mean score of the Patient Participation Scale was found to be 81.56±8.87 (Table 4). The average score obtained from the entire scale is above the average, which is interpreted as the participants' participation in their care being above average.

It was found that the situations in which patients had the highest involvement in their care were the following items, with an average score of 4.52±0.69: "Item 1. I explain my current situation and symptoms to healthcare professionals in detail." and “Item 20. I feel that the health professional respects me.” It was revealed that their participation in care was lowest in the following item, with an average score of 3.81±0.91: "Item 19. I believe that the health professional has enough information about my condition and treatment process." (Table 4).

DISCUSSION

This study, which was conducted to realize the Turkish adaptation of the Patient Participation Scale developed by Song and Kim (2023), showed that the scale is a valid and reliable instrument for the Turkish population. As a result of the findings, it was determined that the scale consisted of three sub-dimensions and 19 items. The scale can be used to determine the level of participation of the Turkish community in the care process.

For the Turkish language validity of the scale, the translation-back translation method was utilized. The literature emphasizes that language validity cannot only be achieved by direct translation from the original language, but also that the scale should be appropriate to the culture of the society in which it is adapted [23,24]. Therefore, it was crucial that the scale's translation was conducted by experts in the field who are familiar with the cultural context of the society [24]. In this study, four experts undertook the translation process, ensuring language validity [23]. Content validity was conducted using the Davis technique to determine whether the measurement tool accurately reflects the scope it is intended to measure [19,25]. In addition, the Critical Appraisal Index (CAI) for the scale was calculated. According to the Davis technique, the CVI should be above 0.80 [19]. In this study, the CVI value was found to be 1.00 and was found to be at the desired level. Thus, it is evident that the scale meets the criteria for content validity and effectively measures the intended constructs [23].

The homogeneity of the items in the measurement tool is assessed by construct validity analysis. Sufficient data must be available for construct validity analyses [25]. As a result of the analysis, the Kaiser-Meyer-Olkin (KMO) coefficient was 0.86 and the Bartlett's test chi-square value was 2260.928. According to literature, the KMO coefficient ranges from 0 to 1, with values closer to 1 indicating better suitability for factor analysis [26]. Classifications suggest KMO values as excellent (greater than 0.90), good (between 0.80-0.90), fair (between 0.70-0.80) and poor (between 0.50-0.70) [26,27]. In addition, Bartlett's test determines whether there is a relationship between the variables and a significant result indicates that the data matrix is appropriate [28]. The significant Bartlett's test in this study confirms that the data were compatible, the sample had a normal distribution, the sample size was sufficient for analysis, and the data were suitable for factor analysis. CFA is used to statistically test a predetermined structure [29]. However, in this study, the CFA fit indices did not meet acceptable thresholds. Therefore, EFA was applied to adapt the scale to Turkish culture and to determine the factor structures.

As a result of EFA, it was found that the scale had a three-factor structure and explained 58.28% of the total variance. While the scale lacks a validity and reliability study in a different language, the original study reported that the factor structure explained 61.9% of the total variance [6]. While more than 30% of the total variance explained is sufficient for single-factor scales, it is recommended that this value should be between 40-60% for multi-factor scales [22,30]. When the factor distributions in the scale were examined, it was determined that eight items explained the first factor, seven items explained the second factor and the remaining four items explained the third factor. This suggests that the scale is suitable for Turkish culture with its three-dimensional structure, and the variance analysis results are deemed acceptable. As a result of the reliability analysis of the study, the Cronbach's alpha reliability coefficient of the overall scale was 0.90. The sub-dimensions showed reliable internal consistency with coefficients of 0.86 for sharing knowledge and experience, 0.82 for performing self-management activities independently, and 0.87 for establishing a mutual trust relationship. Although there is no validity and reliability study of the scale in a different language, in the original study of the scale, Cronbach's alpha reliability coefficient was 0.88 for sharing knowledge and experience, 0.83 for performing self-management activities independently, 0.88 for establishing a relationship of mutual trust, and 0.92 for the total scale [6]. Studies emphasize that a Cronbach's alpha value of 0.70 and above indicates that the scale is reliable, while a value of 0.80 and above indicates a very high level of reliability [31,32]. In addition to Cronbach's alpha, item-total correlation is used to assess internal consistency. Although no universal standard range exists for this correlation, a positive value of at least 0.25 is generally considered acceptable [22,32]. Items with negative skewness or values below this threshold are typically removed from the scale [30]. In this study, item-total correlation values ranged from +0.46 to +0.68, all of which were positive.

Limitations

This study has two limitation. The study was conducted online. This may have limited access to patients without access to online platforms. Another limitation of the study is that the study was conducted using the non-Probability sampling method.

CONCLUSION

Following validity and reliability analyses, it was concluded that the Participation in Patient Care Scale is a valid and reliable measurement tool for patients receiving inpatient or outpatient treatment in the Turkish society. In the study, it was determined that the content validity, model fit and reliability of the scale were high. Moreover, the scale, comprising 19 items with a three-factor structure, was identified as suitable for measuring patient participation in care processes in Turkey in a multidimensional manner.

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