Sağ Aka Derg, 2023; 10(3): 337-347

Research Article | Arașturma

# Turkish validity and reliability of Patient-Centred Care Scale Hasta Merkezli Bakım Ölçeğinin Türkçe geçerlilik ve güvenilirliği

Harun Kırılmaz<sup>1</sup>, Ceyda Ataç<sup>2</sup>, Mustafa Erdoğan<sup>3</sup>, Ali Arslanoğlu<sup>4</sup>

- <sup>1</sup> Assoc. Prof. Dr. Sakarya University Department of Health Management, hkirilmaz@sakarya.edu.tr, 0000-0001-6055-6826
- <sup>2</sup> Sakarya University, Institute of Management, ceyda.atac@ogr.sakarya.edu.tr, 0000-0003-1814-796X
- <sup>3</sup> Sakarya University, Institute of Management, mtkerdogan1907@gmail.com, 0000-0002-5840-9939
- <sup>4</sup> Assoc. Prof. Dr. University of Health Sciences, Hamidiye Faculty of Health Sciences, aliarslanoglu18@gmail.com, 0000-0002-4454-0397

#### **ABSTRACT**

Purpose: The aim of this study is to adapt a valid and reliable scale aiming to measure the perception of patient-centred care from the patient perspective into Turkish. Materials and Methods: The Patient-Centred Care Scale developed by Cramm and Nieboer was used to assess patients' perception of patient-centred care. In the adaptation of the scale to Turkish, explanatory, and confirmatory factor analysis and reliability analysis were performed. Convenience sampling method was preferred in the study. The sample of the study consisted of 300 people. Result: The Kaiser-Meyer-Olkin value for sampling adequacy was 0.866 and Barlett's test was significant. According to the results of the exploratory factor analysis, the scale is divided into eight dimensions as in the original scale and the total variance explained is 75.623%. The goodness of fit values of the scale are RMSEA = 0.046, NFI = 0.901, TLI = 0.954, CFI = 0.959, IFI = 0.959, GFI = 0.859 and these values are acceptable. Cronbach's alpha value of the scale is 0.961. There is a positive, medium, and high-level relationship between the dimensions of the scale. The overall mean of the scale was determined as 3.48. Conclusion: The Turkish adaptation of the Patient-Centred Care Scale is a valid and reliable tool that can be used from a patient perspective. The findings obtained in the original scale and the findings obtained in the Turkish adaptation of the scale overlap. In this direction, it is thought that the scale can be used to evaluate patients' attitudes and thoughts about patient-centred care.

#### ÖZ

Amaç: Bu araştırmanın amacı, hasta perspektifinde hasta merkezli bakım algısını ölçmeyi hedefleyen geçerli ve güvenilir bir ölçeği Türkçeye uyarlamaktır. Gereç ve Yöntem: Hastaların hasta merkezli bakım algısını değerlendirmek için Cramm ve Nieboer tarafından geliştirilen Hasta Merkezli Bakım Ölçeği kullanılmıştır. Ölçeğin Türkçeye uyarlanmasında açıklayıcı ve doğrulayıcı faktör analizi ile güvenilirlik analizi yapılmıştır. Araştırmada kolayda örnekleme yöntemi tercih edilmiştir. Araştırmanın örneklemini 300 kişi oluşturmaktadır. Bulgular: Araştırmada örneklem yeterliliği için Kaiser-Meyer-Olkin değeri 0,866 ve Barlett's testi anlamlıdır. Açıklayıcı faktör analizi sonucuna göre orijinal ölçekteki gibi sekiz boyuta ayrılmaktadır ve açıklanan toplam varyans %75,623'tür. Ölçeğin uyum iyiliği değerleri RMSEA= 0,046, NFI= 0,901, TLI= 0,954, CFI= 0,959, IFI= 0,959, GFI= 0,859 olup bu değerler kabul edilebilir değerlerdir. Ölçeğin Cronbach alfa değeri 0,961'dir. Ölçeğin boyutları arasında pozitif yönlü, orta ve yüksek düzeyde ilişki söz konusudur. Ölçeğin genel ortalaması 3,48 olarak tespit edilmiştir. Sonuç: Hasta Merkezli Bakım Ölçeğinin Türkçe uyarlaması, hasta perspektifinde kullanılabilece eçerli ve güvenilir bir araçtır. Orijinal ölçeğin elde ettiği bulgular ile ölçeğin Türkçe uyarlamasında elde edilen bulgular örtüşmektedir. Bu doğrultuda ölçeğin, hastaların hasta merkezli bakım ile ilgili tutum ve düşüncelerini değerlendirmede kullanılabileceği düşünülmektedir.

## **Key Words:**Patient Centredness, Patient Centred Care, Validity, Reliability.

Anahtar Kelimeler: Hasta Merkezlilik, Hasta Merkezli Bakım, Geçerlilik, Güvenilirlik

### Corresponding Author/Sorumlu Yazar:

Assoc. Prof. Dr. Sakarya University Department of Health Management, hkirilmaz@sakarya. edu.tr, 0000-0001-6055-6826

> DOI: 10.52880/ sagakaderg.1332166

Received Date/Gönderme Tarihi: 24.07.2023

Accepted Date/Kabul Tarihi: 24.08.2023

Published Online/Yayımlanma Tarihi: 01.09.2023

#### INTRODUCTION

Patient-centredness, which is accepted as a continuation of the developments in health ethics and patient rights in the 1970s (Arslanoğlu ve Kırılmaz, 2019), is a concept that has gained importance since the 2000s, including policies and practices to promote patient-centred care at the level of health policies and health services (Bann vd., 2010). In this direction, it has been integrated into health policies by international organisations and many countries and included in the agenda of health services (Bayram, 2016). Patient-centredness is defined as providing care that respects and is sensitive to individual patient preferences, needs and values, and ensuring that

patient values guide all clinical decisions (Benjamins vd., 2021; Boissy, 2020). Patient-centredness, which is based on respect and cooperation between patients and health professionals, is closely related to effective communication, health promotion and development (Büyüköztürk, 2014). Patient-centredness targets patients and disease treatment processes and aims to provide a functional life for the patient (Byrne, 2016). Patient-centredness has health systems and patienthealth professional dimensions. The health system dimension is related to coordination in health service delivery, while the patient-health professional dimension is related to the interaction and communication between

the patient and the health professional (Christalle vd., 2022).

Patient-centred care, which focuses on health service delivery, is considered as one of the dimensions of health service quality (Benjamins vd., 2021; Comrey ve Lee, 2013). Patient-centred care, which is associated with patient satisfaction and patient activation, is considered as one of the ways patients participate in healthcare services (Costello ve Osborne, 2005). Contrary to the paternalistic view, patient-centred care, which has been on the healthcare agenda in recent years, has emerged as a response to the previously perceived limitations of biomedical traditions that eliminate the power asymmetry between patient and physician, point to problems related to the biomedical tradition (Cramm ve Nieboer, 2018; Cramm ve Nieboer, 2017). The aim of patient-centred care is to put patients at the centre of healthcare and allow them to take responsibility (De Witte vd., 2006). Although there are debates on the definition of patient-centred care and how to measure it, patient autonomy, patient participation and care coordination are among the basic components of patient-centred care (Demir, 2020; Ehrenberg vd., 2016; Erdoğan ve Kırılmaz, 2020). In this framework, patientcentred care is to make patients the focus of service delivery and to ensure partnership and collaboration with patients and their families in healthcare delivery, and to put patient preferences, needs and values at the centre of organisational design, workflow and patient decision-making Processes (Ferreira ve Amendoeira, 2020; Fornell ve Larcker, 1981; Gartner vd., 2022; Glasgow vd., 2005).

In the international literature, there are scales that address patient-centred care from the perspective of health professionals (Grover vd., 2022; Gusmano vd., 2019; Hair vd., 2010; Håkansson Eklund vd., 2019; Hambleton ve Patsula, 1999; Hannum Rose vd., 2007; Hansen vd., 2022; Hays vd., 1999; Hernandez vd., 2013; Hogarty vd., 2005), there are also scales addressing the patient perspective (Hu ve Bentler, 1995; Hwang, 2015; Kanat vd., 2021; Karagöz, 2017; Karagöz ve Bardakçı, 2020; Kırılmaz ve Durmuş, 2023). When the Turkish literature is examined, it is seen that the "Patient-Centred Care Scale" developed by Hwang (2015) from the perspective of health professionals was adapted into Turkish by Arslanoğlu and Kırılmaz (2019) and the same scale was adapted into Turkish by Saygılı et al. (2020) (Hannum Rose vd., 2007; Kline, 2011; Kuipers vd., 2020). Apart from these two scales, there is no scale developed or adapted to Turkish on patient-centred care from the perspective of both health professionals and patients. From this point of view, the aim of this study is to adapt a valid and reliable scale that will be used to measure

the perception of patient-centred care from the patient perspective into Turkish.

#### **MATERIALS AND METHODS**

This study was conducted in Sakarya province between 10 January - 10 February 2023. In the study, an information form containing the socio-demographic characteristics of the participants and the Patient-Centred Care Scale developed by Cramm and Nieboer (2018) were used to collect data. Approval was obtained from Sakarya University Ethics Committee for the study (decision dated 04/01/2023 and numbered 53/04). The population of the study consists of 300 people who voluntarily participated in the study and were determined by convenience sampling method. Participants over 18 years of age and receiving services from public health institutions were included in the study. The questionnaire forms were distributed faceto-face and online by the researchers to the volunteer participants. Personal information of the participants participating in the study was not collected.

#### **Data Collection Tools**

In this research, a questionnaire form was used as a data collection tool. The questionnaire consists of socio-demographic information form and Patient-Centred Care Scale. The socio-demographic information form was designed to collect information about the gender, age, education and income status of the participants. The Patient-Centred Care Scale was adapted by Cramm and Nieboer (2018) to assess patient-centred care from the patient perspective. The scale consists of 36 items and 8 sub-dimensions (Appendix).

The sample of the scale developed by Cramm and Nieboer (2018) consists of adults with multimorbidity (diabetes, asthma, COPD, cardiovascular disease, etc.) and chronic disease history who receive services from healthcare providers in the Tilburg region of the Netherlands (n=413). In the original study, Cronbach's alpha coefficient of the scale was found to be 0.89. The scale statements were prepared in 5-point Likert type, the answers are "1= strongly disagree, 5= strongly agree". A mean score closes to 5 indicates a high level of patient-centred care.

#### Adaptation Process of the Scale into Turkish

The Patient-Centred Care Scale was translated into Turkish by two authors. The translators were fluent in both languages, familiar with the culture studied, and knowledgeable about the scale structure and the construct being measured (Laird-Fick vd., 2011). The differences between the English version of the scale

and the first Turkish draft were evaluated by fifteen academics in the field of Health Management. The back translation was carried out by a bilingual translator. The authors compared the back-translated and original English versions, eliminated inconsistencies and developed the final version of the scale. The final version of the scale was administered to ten participants and pilot tested. In order to perform factor analysis, a sample size of 5-10 times the number of items used in the scale is acceptable (Lee vd., 2019). Accordingly, it is seen that 300 participants are sufficient for an acceptable sample size (Manzer ve Bell, 2022; Michael vd., 2019). Finally, the validity of the scale was evaluated among 300 individuals through exploratory factor analysis, comfirmatory factor analysis, and Cronbach's alpha coefficients were calculated to determine the reliability of the scale. Since the obtained findings showed that the scale was usable, the implementation phase of the scale was started.

#### **Statistical Analysis**

The data obtained in the study were analysed using SPSS 23 and AMOS 23 package programs. The data were analysed using validity and reliability analyses, descriptive statistical methods and correlation analysis. Sample suitability for factor analysis was analysed by Kaiser-Meyer-Olkin (KMO) and Bartlett's tests. Cronbach-alpha and Composite Reliability (CR) coefficients were preferred for reliability. Principal component factor analysis was used to determine the factor loadings of the items in the scale. In attestretddition, AVE (Average Variance Extracted) values were calculated for the convergent validity of the scale. In the literature, CR and Cronbach-alpha coefficients are expected to be 0.70 and above, AVE coefficient is expected to be 0.50 and above, and CR coefficient is expected to be greater than AVE coefficient. Although the AVE coefficient is expected to be 0.50 and above, it can be said that the scale shows partial convergent validity when it is lower than this coefficient in some studies (Nkrumah ve Abekah-Nkrumah, 2019; Perera ve Dabney, 2020). In structural equation models, the assumption that the observed variables are in multiple normal distribution is valid. In the test of this assumption, kurtosis and CR values of Mardia coefficient were examined. When this coefficient is 5 or less in absolute value, it is said that the data have multiple normal distribution (Ramos vd., 2017; Ree vd., 2019; Rose vd., 2022; Ryan vd., 2019).

#### **RESULTS**

Within the scope of the study, skewness and kurtosis values were calculated before analysing the data. It is accepted that skewness and kurtosis values should be

between -1.5 and +1.5 (Saygılı vd., 2020). According to the findings of the study, the skewness and kurtosis values were -0.496 and +0.425 for patient preferences; -0.280 and +0.314 for physical comfort; -0.354 and +0.095 for care coordination; -0.515 and +0.477 for continuity and transition; -0.398 and -0.287 for emotional support; -0.014 and -0.334 for access to care; -0.379 and -0.187 for information and education; -0.679 and +0.333 for family and friends; and -0.196 and +0.519 for the overall Patient-Centred Care Scale. Validity and reliability analyses were performed by accepting that the data were normally distributed. The analyses were performed at 95% confidence interval (p=0.05).

#### Validity and Reliability Analysis of the Scale

Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted to determine the validity of the Patient-Centred Care Scale. With the help of EFA, it can be revealed under which factors each item in the scale takes place and how many factors in total can explain a large part of the structure. CFA is used to verify whether the determined factorised structure is the same in different samples (Ree vd., 2019; Saygılı vd., 2020). Both EFA and CFA were conducted in the sample of this study. The factor loadings in the CFA models were found to be statistically significant at 1% significance level and standardised factor loadings were given in the path diagrams. Principal component analysis technique was used for factor analysis. The Kaiser-Meyer-Olkin value of the scale was obtained as 0.866 (Table 1). This value shows that the sample volume is sufficient to perform factor analyses of the scale. Bartlett's test of sphericity was significant (p<0.001). According to this result, it indicates that the correlations between the items are sufficiently large for principal component analysis. These results show that the scale is suitable for factor analysis.

The Patient-Centred Care Scale was grouped under eight factors with eigenvalues above 1 as in the original. The total explained variance of the scale is 75.623%. The dimension with the highest explanatory value in the total variance is the "patient preferences" dimension. Patient preferences dimension explains 13.981% of the total variance. The factor loadings of the statements within the dimension vary between 0.769-0.852. The second factor of the scale is "access to care" dimension. Access to care dimension explains 10.639% of the total variance. The factor loadings of the statements forming the dimension vary between 0.806-0.896. The third factor of the scale, "information and education" dimension, explains 9.800% of the total variance. The factor loadings of the statements constituting the knowledge and training dimension vary between 0.843-0.885. The fourth factor of the scale, "physical comfort" dimension explains

#### Kırılmaz et al.: Patient-centred care scale

Table 1: Explanatory Factor Analysis Results

K	aiser-Meyer-Olkin Me	easure of Sampli	ng Adequacy			0,866
Bartlett's Test of Sp	Approx. Chi-Square df				8702.610 630.000	
Total Variance Explained	<b>1</b> 75.623%	Sig. Cronbach Alpha AVE CR				0.000 0.961 0.669 0.986
	Factor Load	Eigenvalue	Explained Variance	Cronbach Alpha	AVE	CR
Patient preferences						
P2	0.852					
23	0.836					
P5	0.825					
P1	0.803	9.403	13.981	0.913	0.654	0.930
P6	0.791					
P4	0.780					
27	0.769					
Access to care						
P26	0.896					
P27	0.848					
P28	0.827	4.962	10.639	0.761	0.701	0.921
P29	0.806					
P25	0.806					
Information and training						
P33	0.885					
P32	0.865	2.277	0.000	0.000	0.744	0.021
P30	0.855	3.271	9.800	0.860	0.744	0.921
P31	0.843					
Physical comfort						
P9	0.849					
P10	0.806					
P11	0.761	2.928	9.354	0.822	0.608	0.885
P8	0.749					
P12	0.728					
Emotional support						
P23	0.861					
P21	0.841	2.072	9.292	0.921	0.688	0.898
P22	0.809	2.072	3.474	0.741	0.000	0.898
224	0.805					
Continuity and transition						
P18	0.833					
P17	0.821	1.843	7.949	0.807	0.654	0.883
P19	0.818	1.043	7.547	0.007	0.034	0.003
P20	0.759					
Family and friends						
236	0.872					
235	0.868	1.490	7.474	0.886	0.755	0.903
P34	0.866					
Care coordination						
P14	0.816					
P13	0.783	1.255	7 124	0.022	0.505	0.040
P15	0.760	1.255	7.134	0.832	0.585	0.849
P16	0.697					

Sağ Aka Derg • 2023 • Cilt 10 • Sayı 3

9.354% of the total variance. The factor loadings of the statements constituting the physical comfort dimension vary between 0.728-0.849. The fifth factor of the scale, "emotional support" dimension, explains 9.292% of the total variance. The factor loadings of the statements constituting the emotional support dimension vary between 0,805-0.861. The sixth factor of the scale, "continuity and transition" dimension explains 7.949% of the total variance. The factor loads of the statements forming the continuity and transition dimension vary between 0.759-0.833. The seventh factor of the scale, "family and friends" dimension explains 7.474% of the total variance. The factor loadings of the statements constituting the family and friends dimension vary between 0.866-0.872. The eighth and last factor of the scale, "care coordination" dimension explains 7.134% of the total variance. The factor loadings of the statements constituting the care coordination dimension vary between 0.697-0.816. According to these results, the factors of the scale are at a level that can be accepted as good. The findings obtained from the exploratory factor analysis show that the model provides construct validity.

Cronbach's alpha ( $\alpha$ ) value was calculated to examine the internal consistency of the scale. As a result of the analysis, the  $\alpha$  value of the 36-expression scale of the Patient-Centred Care Scale was obtained as 0.961. In addition, according to the dimensions, the  $\alpha$  value in the Patient Preferences dimension was 0.913; α value in the Access to Care dimension was 0.832; α value in the Information and Education dimension was 0.860; α value in the Physical Comfort dimension was 0.822; α value in the Emotional Support dimension was 0.921; α value in the Continuity and Transition dimension was 0.807; a value in the Family and Friends dimension was 0.886; α value in the Care Coordination dimension was 0.832. An α value between 0.800 and 1.00 indicates that the scale is highly reliable (Scholl vd., 2014). These values show that the scale is reliable. In addition, the correlation values between the items vary between 0.405 and 0.784. This result shows that there is a high correlation between the items of the scale (Sidani vd., 2014).

After the scale was found to be usable as a result of the exploratory factor analysis, confirmatory factor analysis was performed in the second stage. The confirmatory factor analysis results of the scale and the RMSEA, NFI, TLI, CFI, IFI and GFI index values calculated for the evaluation of the structural validity of the model are at acceptable levels. The standardised path coefficients calculated for the scale vary between 0.55 and 0.97. The estimated model and standardised path coefficients for the scale are given in Figure 1. In line with these results, it can be said that the goodness of fit values of the scale are at an acceptable level (Sidani vd., 2014).

## Correlation Analysis between Dimensions of the Scale

Table 2 shows the correlation coefficients between the dimensions of the scale. According to these results, there is a positive, medium and high-level relationship between the dimensions of the scale (p<0.01). There is a significant relationship between the Patient Preferences dimension and Emotional Support dimension at high level (r=0.703), and between the Patient Preferences dimension and Access to Care dimension at medium level (r=0.451) (p<0.01). In line with these data, it is seen that the validity of the scale is ensured; in other words, the scale is a valid and reliable scale (Tabachnick ve Fidell, 2015).

#### Mean and Standard Deviation Values of the Scale

Table 3 shows the mean values for the whole scale and its dimensions. Family and Friends dimension  $(3.62\pm0.948)$  and Patient Preferences dimension  $(3.61\pm0.783)$  had the highest mean values, while Emotional Support dimension  $(3.30\pm0.979)$  and Care Coordination dimension  $(3.33\pm0.875)$  had the lowest mean values. The mean of Patient-Centred Care was calculated as  $3.48\pm0.690$ . It can be stated that there is a high level of participation in the general and sub-dimensions of the scale and in this direction, it can be stated that the patient-centred care levels of the participants are high.

#### **DISCUSSION AND CONCLUSION**

The course of the focal object in health services from the disease to the patient has led to the prominence of community and human-centred health approaches in the 2000s (Terrien vd., 2012). Patient-centredness and patient-centred care, which puts "human" at the centere of health services, is a vision that responds to the needs of the individual, family and society in a humanitarian and holistic manner and is based on safety, satisfaction and participation in the health system. Patient-centred care is based on universal values and principles such as human rights, right to health and patient rights, which are considered fundamental in international law (Waweru vd., 2020). The development of patient-centred health systems has the potential to bring significant benefits to the health of individuals and society, as well as to health services, including better access to health services, better health status, better health literacy, higher patient satisfaction, job satisfaction, service efficiency and cost reduction (Wilkerson vd., 2010).

Patient-centred care, which is one of the issues that have recently come to the agenda in line with the developments in health policies in the world, focuses on individual values and choices, and aims at a participatory approach

#### Kırılmaz et al.: Patient-centred care scale

 Table 2: Correlation Between The Dimensions Of The Scale

	1	2	3	4	5	6	7	8
Patient preferences (1)	1							
Access to care (2)	0.451**	1						
Information and training (3)	0.611**	0.682**	1					
Physical comfort (4)	0.665**	0.554**	0.549**	1				
Emotional support (5)	0.703**	0.481**	0.624**	0.618**	1			
Continuity and transition (6)	0.586**	0.549**	0.611**	0.532**	0.625**	1		
Family and friends (7)	0.614**	0.472**	0.637**	0.489**	0.666**	0.606**	1	
Care coordination (8)	0.668**	0.559**	0.606**	0.703**	0.652**	0.691**	0.526**	1

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

Table 3: Mean and Standard Deviation Values

	Mean	S.D.
Patient preferences	3.61	0.783
Access to care	3.44	0.839
Information and training	3.56	0.886
Physical comfort	3.40	0.834
<b>Emotional support</b>	3.30	0.979
Continuity and transition	3.52	0.794
Family and friends	3.62	0.948
Care coordination	3.33	0.875
Patient-Centred Care	3.48	0.690

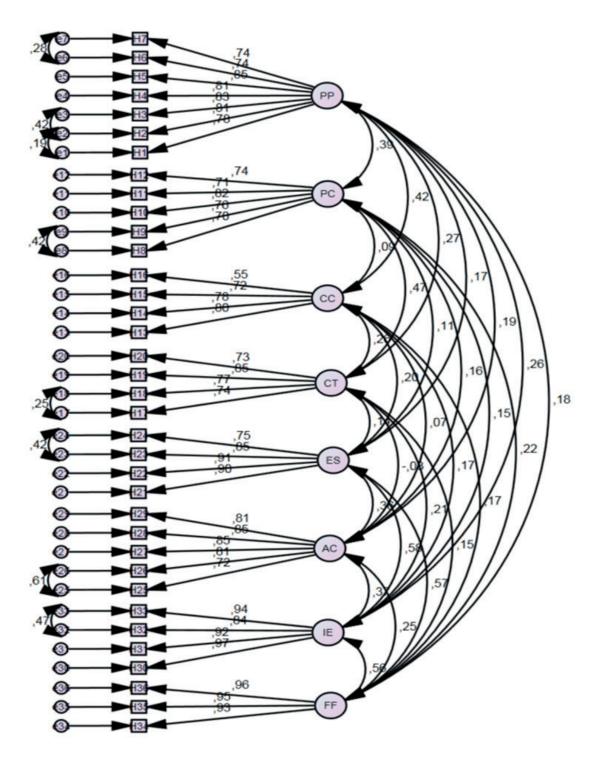


Figure 1. AMOS Output of Patient Centred Care Scale

x2=904.048;	DF=558;	x2/DF=1.62;	p=0.000;	RMSEA=0.046;
NFI=0.901;	TLI=0.954;	CFI=0.959;	IFI=0.959;	GFI=0.859

in the provision of health services, is an approach that puts the patient at the forefront in the treatment process (World Health Organization, 2007). Similar to the developments in the world in this regard, patient-centred approach is one of the prominent issues within the scope of the health reform implemented in Turkey after 2000 and defined as the Health Transformation Programme. Patient-centredness, which is among the basic principles taken as basis in current health policies, is based on human beings, human needs, demands and expectations in the planning of the health system and the provision of health services (World Health Organization, 2015).

In this study, the Patient-Centred Care Scale developed by Cramm and Nieboer (2018) was adapted into Turkish, and its validity and reliability were evaluated. In the first stage, the original scale expressions were translated into Turkish, in the second stage, language and construct validity were performed by experts in the field, and in the last stage, and pilot application was carried out. After this process, reliability analyses, descriptive statistics and correlation analyses were performed for the scale.

According to the explanatory factor analysis, the scale is divided into eight dimensions: patient preference, physical comfort, care coordination, emotional support, access to care, continuity and transition, information and education, family and friends. The total variance explained was 75.623% and the variance of the dimensions varied between 13.981% and 7.134%. According to the confirmatory factor analysis results of the original scale, the fit indices are at a good level (Kırılmaz ve Durmuş, 2023). The fit indices for the model created by considering the dimensions for confirmatory factor analysis were also found to be at an acceptable level. The factor loadings of all items of the original scale were calculated as >0.50. In the Turkish adaptation of the scale, the factor loadings of all items were >0.70. Similarly, while the CFI value of the original scale was 0.987, the CFI value in the Turkish adaptation of the scale was 0.959 (Kırılmaz ve Durmuş, 2023). According to these results, the Turkish adaptation of the scale fulfils the necessary conditions for validity and is similar to the original scale.

The  $\alpha$  coefficient of the Patient-Centred Care Scale is 0.96. The  $\alpha$  coefficient of the dimensions of the scale varies between 0.76 and 0.92. The  $\alpha$  coefficient of the original scale is 0.89, and the  $\alpha$  coefficient of the sub-dimensions varies between 0.72 and 0.92 (Kırılmaz ve Durmuş, 2023). In line with these results, it is seen that the original scale and its Turkish adaptation are compatible in terms of reliability results.

There is a significant positive correlation between the dimensions of the Patient-Centred Care Scale. There is a significant and positive correlation (0.67 < r > 0.30; p

< 0.001) between the dimensions in the original scale (Kırılmaz ve Durmuş, 2023). The overall mean of the Turkish adaptation of the scale is 3.48. The lowest mean belongs to the Emotional Support (3.30) dimension and the highest mean belongs to the Family and Friends (3.62) dimension. The overall mean of the original scale is 3.83. In the dimensions of the original scale, the lowest mean belongs to the Emotional Support (3.43) dimension and the highest mean belongs to the Access to Care (4.03) dimension (Kırılmaz ve Durmuş, 2023). In terms of scale averages, the original scale and the Turkish adaptation are compatible.

In conclusion, the Patient-Centred Care Scale appears to have good psychometric properties and is a suitable tool for the assessment of patient-centred care among patients. The original Patient-Centred Care Scale is in Dutch, and it is recommended to test the English version in other countries to ensure international validity using appropriate translation procedures (Kırılmaz ve Durmuş, 2023). However, no adaptation of the original scale in any language was found. Accordingly, the Turkish adapttableation of the Patient-Centred Care Scale is appropriate and applicable in terms of psychometric properties and meets the necessary conditions for validity and reliability.

#### REFERENCES

Arslanoğlu, A. ve Kırılmaz, H. (2019). Hasta merkezli bakım yetkinliği (HMBY) ölçeğinin Türkçeye uyarlanması. Sağlık Akademisyenleri Dergisi, 6(2), 158-166.

Bann, C. M., Sirois, F. M. & Walsh, E. G. (2010). Provider support in complementary and alternative medicine: exploring the role of patient empowerment. The Journal of Alternative and Complementary Medicine, 16(7), 745-752.

Bayram, N. (2016). Yapısal eşitlik modellemesine giriş AMOS uygulamaları. Bursa: Ezgi Kitabevi.

Benjamins, J., Haveman-Nies, A., Gunnink, M., Goudkuil, A., & De Vet, E. (2021). How the use of a patient-accessible health record contributes to patient-centered care: scoping review. Journal of Medical Internet Research, 23(1), e17655.

Boissy, A. (2020). Getting to patient-centered care in a post– Covid-19 digital world: a proposal for novel surveys, methodology, and patient experience maturity assessment. NEJM Catalyst Innovations in Care Delivery, 1(4).

Büyüköztürk, Ş. (2014). Sosyal bilimler için veri analizi el kitabı. Ankara: Pegem A Yayıncılık.

Byrne, B.M. (2016). Structural equation modeling with AMOS: Basic concepts, applications, and programming. Routledge.

Christalle, E., Zeh, S., Hahlweg, P., Kriston, L., Härter, M., Zill, J., & Scholl, I. (2022). Development and content validity of the experienced patient centeredness questionnaire (EPAT)-A best practice example for generating patient reported measures from qualitative data. Health Expectations, 25(4), 1529-1538.

Comrey, A.L., & Lee, H.B. (2013). A first course in factor analysis (2nd Edition). New York (USA): Psychology Press.

Costello, A.B. and Osborne, J.W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. Practical Assessment, Research & Evaluation, 10, 1-9.

- Cramm, J.M., & Nieboer, A.P. (2018). Validation of an instrument for the assessment of patient-centred care among patients with multimorbidity in the primary care setting: the 36-item patient-centred primary care instrument. BMC Family Practice, 19, 1-10.
- Cramm, J. M., & Nieboer, A. P. (2017). Validation of an instrument to assess the delivery of patient-centred care to people with intellectual disabilities as perceived by professionals. BMC Health Services Research, 17(1), 1-11.
- De Witte, L., Schoot, T., & Proot, I. (2006). Development of the client centred care questionnaire. Journal of Advanced Nursing, 56(1), 62-68.
- Demir, B. (2020). Sağlığın kavramsallaştırılması ve insan odaklı sağlık hizmetlerinde kalite ve akreditasyon perspektifi. İnsan ve İnsan Dergisi, 7(24), 62-83. https://doi.org/10.29224/insanveinsan.675151
- Ehrenberg, A., Gustavsson, P., Wallin, L., Boström, A. M., & Rudman, A. (2016). New graduate nurses' developmental trajectories for capability beliefs concerning core competencies for healthcare professionals: A national cohort study on patient centered care, teamwork, and evidence based practice. Worldviews on Evidence Based Nursing, 13(6), 454-462.
- Erdoğan, M., ve Kırılmaz, H. (2020). Hasta merkezlilik ve hasta merkezli bakım. İnsan ve İnsan, 7(24), 97-126. https://doi.org/10.29224/insanveinsan.668806
- Ferreira, R., & Amendoeira, J. (2020). Adaptação e validação do instrumento "Patient Centered-Care" para a cultura portuguesa. Revista da UI\_IPSantarém-Unidade de Investigação do Instituto Politécnico de Santarém, 8(1), 238-245.
- Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50.
- Gartner, J.B., Abasse, K. S., Bergeron, F., Landa, P., Lemaire, C., & Côté, A. (2022). Definition and conceptualization of the patient-centered care pathway, a proposed integrative framework for consensus: a Concept analysis and systematic review. BMC Health Services Research, 22(1), 1-24. https://doi.org/10.1186/s12913-022-07960-0
- Glasgow RE, Wagner EH, Schaefer J, Mahoney LD, Reid RJ, Greene SM. (2005). Development and validation of the Patient Assessment of Chronic Illness Care (PACIC). Med Care, 43(5):436-44. doi: 10.1097/01.mlr.0000160375.47920.8c. PMID: 15838407.
- Grover, S., Fitzpatrick, A., Azim, F.T., Ariza-Vega, P., Bellwood, P., Burns, J., & Ashe, M. C. (2022). Defining and implementing patient-centered care: An umbrella review. Patient Education and Counseling, 105(7), 1679-1688. https://doi.org/10.1016/j.pec.2021.11.004
- Gusmano, M.K., Maschke, K.J., & Solomon, M.Z. (2019). Patient-centered care, yes; patients as consumers, no. Health Affairs, 38(3), 368-373. https://doi.org/10.1377/hlthaff.2018.05019
- Hair, J., Black, W., Babin, B., & Anderson, R. (2010). Multivariate data analysis: A global perspective, Upper Saddle River, NJ: Pearson Prentice Hall.
- Håkansson Eklund J, Holmström IK, Kumlin T, Kaminsky E, Skoglund K, Höglander J, Sundler AJ, Condén E, Summer Meranius M. (2019). "Same same or different?" A review of reviews of person-centered and patient-centered care. Patient Educ Couns. 2019 Jan; 102(1):3-11. Doi: 10.1016/j. pec.2018.08.029. Epub 2018 Aug 26. PMID: 30201221.
- Hambleton, R.K., & Patsula, L. (1999). Increasing the validity of adapted tests: Myths to be avoided and guidelines for improving test adaptation practices. Journal of Applied Testing Technology, 1(1), 1-13.

- Hannum Rose, J., Bowman, K.F., O'Toole, E.E., Abbott, K., Love, T.E., Thomas, C., & Dawson, N.V. (2007). Caregiver objective burden and assessments of patient-centered, family-focused care for frail elderly veterans. The Gerontologist, 47(1), 21-33. https://doi.org/10.1093/geront/47.1.21
- Hansen, L.S., Præstegaard, J., & Lehn-Christiansen, S. (2022). Patient-centeredness in physiotherapy–a literature mapping review. Physiotherapy Theory and Practice, 38(12), 1843-1856.
- Hays, R.D., Shaul, J.A., Williams, V.S., Lubalin, J. S., Harris-Kojetin, L.D., Sweeny, S.F., & Cleary, P.D. (1999). Psychometric properties of the CAHPS™ 1.0 survey measures. Medical Care, 37(3), MS22-MS31.
- Hernandez, S.E., Conrad, D. A., Marcus-Smith, M. S., Reed, P., & Watts, C. (2013). Patient centered innovation in health care organizations. Health Care Management Review, 38(2), 166 175.
- Hogarty, K., Hines, C., Kromrey, J., Ferron, J., & Mumford, K. (2005). Communality and overdetermination the quality of factor solutions in exploratory factor analysis: The influence of sample size. Educational and Psychological Measurement, 65, 202-226.
- Hu, L.T., & Bentler, P.M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), Structural equation modelling: Concepts, issues, and applications. London: Sage.
- Hwang, J. I. (2015). Development and testing of a patient-centred care competency scale for hospital nurses. International Journal of Nursing Practice, 21(1), 43-51.
- Kanat, M., Schaefer, J., Kivelitz, L., Dirmaier, J., Voigt-Radloff, S., Heimbach, B., & Glattacker, M. (2021). Patient-centeredness in the multimorbid elderly: a focus group study. BMC Geriatrics, 21(1), 1-12. https://doi.org/10.1186/s12877-021-02448-8
- Karagöz Y. (2017). SPSS ve AMOS uygulamalı bilimsel araştırma yöntemleri ve yayın etiği. Ankara: Nobel Akademik Yayıncılık.
- Karagöz, Y., ve Bardakçı, S. (2020). Bilimsel araştırmalarda kullanılan ölçme araçları ve ölçek geliştirme. Ankara: Nobel Akademik Yayıncılık.
- Kırılmaz, H. ve Durmuş, A. (2023). İnsan odaklı sağlık hizmeti perspektifinde sağlıkta dönüşüm programının değerlendirilmesi, sosyal beşerî ve idari bilimler alanında uluslararası araştırmalar. İstanbul: Eğitim Yayınevi.
- Kline, R.B. (2011). Principles and practice of structural equation modeling. New York: Guilford Press.
- Kuipers, S.J., Nieboer, A.P., & Cramm, J.M. (2020). Views of patients with multi-morbidity on what is important for patient-centered care in the primary care setting. BMC Family Practice, 21, 1-12. https://doi.org/10.1186/s12875-020-01144-7
- Laird-Fick, H.S., Solomon, D., Jodoin, C., Dwamena, F.C., Alexander, K., Rawsthorne, L., & Smith, R.C. (2011). Training residents and nurses to work as a patient-centered care team on a medical ward. Patient Education and Counseling, 84(1), 90-97. https://doi.org/10.1016/j.pec.2010.05.018
- Lee, Y. M., Song, J. E., Park, C., & Son, Y. J. (2019). Psychometric evaluation of the Korean version of patient-centered care scale for hospital nurses. Evaluation & The Health Professions, 42(3), 344-365.
- Manzer, J.L., & Bell, A.V. (2022). The limitations of patient-centered care: The case of early long-acting reversible contraception (LARC) removal. Social Science & Medicine, 292, 114632. https://doi.org/10.1016/j.socscimed.2021.114632
- Michael, K., Dror, M. G., & Karnieli-Miller, O. (2019). Students' patient-centered-care attitudes: the contribution of self-efficacy, communication, and empathy. Patient Education and Counseling, 102(11), 2031-2037. https://doi.org/10.1016/j.pec.2019.06.004.

#### Kırılmaz et al.: Patient-centred care scale

- Nkrumah, J., & Abekah-Nkrumah, G. (2019). Facilitators and barriers of patient-centered care at the organizational-level: A study of three district hospitals in the central region of Ghana. BMC Health Services Research, 19(1), 1-11. https://doi.org/10.1186/s12913-019-4748-z
- Perera, S., & Dabney, B. W. (2020). Case management service quality and patient-centered care. Journal of Health Organization and Management, 34(5), 551-568. https://doi.org/10.1108/JHOM-12-2019-0347
- Ramos, M.M., Sebastian, R.A., Stumbo, S.P., McGrath, J., & Fairbrother, G. (2017). Measuring unmet needs for anticipatory guidance among adolescents at school-based health centers. Journal of Adolescent Health, 60(6), 720-726.
- Ree, E., Wiig, S., Manser, T., & Storm, M. (2019). How is patient involvement measured in patient centeredness scales for health professionals? A systematic review of their measurement properties and content. BMC Health Services Research, 19, 1-13. https://doi.org/10.1186/s12913-018-3798-y
- Rose, G.L., Bonnell, L.N., O'Rourke Lavoie, J.B., van Eeghen, C., Reynolds, P., Pomeroy, D., & Littenberg, B. (2022). Development and validation of the patient centeredness index for primary care. Journal of Clinical Nursing, 31(23-24), 3485-3497. https://doi.org/10.1111/jocn.16177
- Ryan, B.L., Brown, J.B., Tremblay, P.F., & Stewart, M. (2019). Measuring patients' perceptions of health care encounters: examining the factor structure of the revised Patient Perception of Patient-Centeredness (PPPC-R) questionnaire. Journal of Patient-Centered Research and Reviews, 6(3), 192-202.
- Saygılı, M., Kar, A. ve Uğurluoğlu, Ö. (2020). Hasta merkezli bakım yetkinlik ölçeği: Türkçe geçerlilik ve güvenilirlik çalışması. Süleyman Demirel Üniversitesi Sağlık Bilimleri Dergisi, 11(4), 416-426.
- Scholl, I., Zill, J.M., Härter, M., & Dirmaier, J. (2014). An integrative model of patient-centeredness–a systematic review and concept analysis. Plos One, 9(9), e107828. https://doi.org/10.1371/journal.pone.0107828
- Sidani, S., Collins, L., Harbman, P., MacMillan, K., Reeves, S., Hurlock Chorostecki, C., ... & van Soeren, M. (2014). Development of a measure to assess healthcare providers' implementation of patient centered care. Worldviews on Evidence Based Nursing, 11(4), 248-257.
- Tabachnick, B.G., & Fidell, L.S. (2015). Using Multivariate Statistics. (Çev. Baloğlu, M.). (6.baskı). Pearson Yayıncılık.
- Terrien, N., Anthoine, E., & Moret, L. (2012). Développement et validation d'une échelle d'auto-évaluation des pratiques de bientraitance des patients ou des résidents par les professionnels de santé. Gériatrie et Psychologie Neuropsychiatrie du Vieillissement, 10(4), 403-411.
- Waweru, E., Smekens, T., Orne-Gliemann, J., Ssengooba, F., Broerse, J., & Criel, B. (2020). Patient perspectives on interpersonal aspects of healthcare and patient-centeredness at primary health facilities: A mixed methods study in rural Eastern Uganda. Plos One, 15(7), e0236524. https://doi.org/10.1371/journal.pone.0236524
- Wilkerson, L., Fung, C. C., May, W., & Elliott, D. (2010). Assessing patient-centered care: One approach to health disparities education. Journal of General Internal Medicine, 25, 86-90. https://doi.org/10.1007/s11606-010-1273-5
- World Health Organization. (2007). People-centred health care: A policy framework. World Health Organization Press, Geneva. Switzerland.
- World Health Organization. (2015). WHO global strategy on integrated people-centred health services 2016-2026. https://www.who.int/servicedeliverysafety/areas/people-centred-care/en.

#### Appendix - Turkish Version of Patient-Centred Care Scale

#### Hasta tercihleri

- 1 Ciddiye alındığımı hissettim.
- 2 Tedavi seçiminde isteklerim ve tercihlerim dikkate alındı.
- 3 Tedavimle ilgili kararlara dâhil edildim.
- 4 Tedavinin hayatım üzerindeki etkileri dikkate alındı.
- 5 Tedavi hedeflerimi belirlememde bana yardım edildi.
- 6 Tedavi hedeflerime ulaşabilmem için desteklendiğimi hissettim.
- 7 Tedavi sürecimde kullanabileceğim tavsiyeler aldım.

#### Fiziksel konfor

- 8 Fiziksel rahatlığıma dikkat edildi.
- 9 Yorgunluk ve uykusuzluğuma dikkat edildi.
- 10 Bekleme alanları temizdi.
- 11 Bekleme alanları konforluydu.
- 12 Poliklinik odasında ve görüşmelerde mahremiyetime dikkat edildi.

#### Bakım koordinasyonu

- 13 Hastalık ve şikâyetimi sadece bir kez anlattım; tedavimle ilgili tüm sağlık çalışanları yeterince bilgilendirildi.
- 14 Teşhis ve tedavi süreci, ilgili sağlık çalışanları arasında iyi bir şekilde koordine edildi.
- 15 Teşhis ve tedavi sürecini kimin koordine ettiğini biliyordum.
- 16 Teşhis ve tedavimle ilgili sağlık çalışanlarıyla kolayca iletişim kurabildim.

#### Süreklilik ve geçiş

- 17 Başka bir hekime yönlendirildiğimde, nereye ve neden gideceğim konusunda yeterince bilgilendirildim.
- 18 Başka bir hekime sevk edilmem durumunda ilgili bilgiler doğru ve eksiksiz bir şekilde anlatıldı.
- 19 Farklı hekimlerden aldığım öneriler birbiri ile uyumlu idi.
- 20 Aile hekimimin tedavisi, diğer hekimlerin tedavileri ile uyumludur.

#### Duygusal destek

- 21 Hastalığımla ilgili psikolojik destek de sağlandı.
- 22 Hastalığımla ilgili korku, kaygı ve endişelerim dikkate alındı.
- 23 Hastalığımla ilgili daha etkili psikolojik destek olanaklarından haberdar oldum.
- 24 Sağlığımın özel hayatıma (aile, akraba, iş, sosyal hayat) etkisine dikkat edildi.

#### Bakıma erişim

- 25 Sağlık kuruluşuna ulaşımımda sorun yaşamadım.
- 26 Hekime kolayca erişebildim.
- 27 Kolay ve hızlı bir şekilde randevu alabildim.
- 28 Muayene için uzun süre beklemedim.
- 29 Hekime kolaylıkla soru sorabildim.

#### Bilgi ve eğitim

- 30 Hekim tarafından yeterince bilgilendirildim.
- 31 Hekim tarafından anlaşılır ve iyi bir şekilde bilgilendirildim.
- 32 Sağlık verilerime (laboratuvar sonuçları, ilaçlar, sevk vb.) kolayca erişebildim.
- 33 İstediğim tüm soruları sorabildim.

#### Aile ve arkadaşlar

- 34 Kendi rızam dâhilinde, ailem de tedavime dâhil oldu.
- 35 Ailemin sağladığı bakım ve destek dikkate alındı.
- 36 Ailemden gelebilecek olası sorular dikkate alındı.