



Review

Psychometric evaluation of the patient perspective on care and rehabilitation scale in geriatric patients

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ABSTRACT

Objectives: This methodological study was conducted to psychometrically evaluate the Patient Perspective on Care and Rehabilitation Scale in geriatric patients.

Methods: This study was conducted with 209 elderly individuals aged 65 years or older who were hospitalized in a hospital in Turkey between March and September 2017. The data were collected by using the Elderly Information Questionnaire prepared by the researcher and the Turkish version of the Patient Perspective on Care and Rehabilitation Scale. Cronbach's Alpha and item-total correlation for the internal consistency, reliability and intraclass correlation coefficients for the test-retest reliability, and Bartlett's test and Kaiser-Meyer-Olkin (KMO) were used for the validity of the scale.

Results: that the result of the KMO test was significant at .87, and the result of the Bartlett's test was significant on the level of $p < .001$. The Cronbach's Alpha value was found as 0.89 for the overall PaPeR scale and between .84 and .87 for the subscales of PaPeR. In factor analysis, the eigenvalue was above 1, the scale covered 2 factors and accounted for 53.7% of the total variance.

Conclusion: The validity and reliability analysis conducted in this study provided evidence for the acceptability of the scale. The Turkish version of the scale is easy to understand and allows evaluation of patient perspectives on quality of care and rehabilitation in geriatric patients. It is recommended to reach larger populations and apply the scale in different regions.

1. Introduction

The world population has been aging rapidly since the second half of the twentieth century. In this century, the average life span of people has been prolonged, death rates have decreased due to medical developments, and quality of life has increased along with technological improvements, increasing the proportion of the elderly population (Beard et al., 2016; Kaufman, Shim, & Russ, 2006; Öcal et al., 2016). While the world had 200 million elderly people in 1988, this number increased to 901 million in 2015 (World Population Ageing, 2015). Turkey is aging faster than other European countries. This situation has led Turkey to get blindsided and experience problems. Among these problems are the incapacity of providing elderly employment, care, health and other social services (Gürsoy Çuhadar & Lordoğlu, 2016). It is estimated that the rate of elderly population in Turkey would increase to 10.2% of the population in 2023, 20.8% in 2050 and 27.7% in 2075 (Elderly with statistics, 2016). Chronic diseases increase due to the increase of the elderly population. Health problems like

cardiovascular, endocrine, skin, respiratory, digestive and urinary tract problems are more frequent and severe for the elderly population. Accordingly, the length of hospital stay is prolonged (Gökler et al., 2015; Öcal et al., 2016). Increasing length of the stay makes the elderly more uneasy and increases the expectations. One of the most important factors in increase in the elderly's delayed discharge from hospitals or dissatisfaction is undoubtedly the care provided to the elderly and how the elderly detected the care given by hospital personnel (Atkins, Naismith, Luscombe, & Hickie, 2015; Foss & Askautrud, 2010; Ladin et al., 2017).

Factors such as involvement of the elderly in their own care, making joint decisions with the personnel about the procedures to be done, providing information to the elderly about the tools used, knowing how and whom to contact in case of emergencies, and planning the discharge process strengthen the elderly's perception on care (Wressle et al., 2006).

According to studies, planning and decision-making processes of some decisions made during the length of the hospital stay of elderly

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patients with the caregivers have strengthened elderly patients' ability of managing their daily lives after being discharged (Foss & Askautrud, 2010; Pedersen, 2005). According to some studies, having information about their own care affect geriatric patients' life satisfaction, discharge from the hospital, and psychological and spiritual state positively (Atkins et al., 2015; Foss & Askautrud, 2010; Kaufman et al., 2006; Sara, 2010). Therefore, it is believed that receiving quality healthcare and evaluating it are important in terms of increasing the well-being of elderly patients.

A Turkish validity and reliability study measuring the care perceptions of the elderly was not found in the literature. Aging of the society has increased dependence on others and chronic diseases, making it a necessity to receive healthcare services. Studies have determined that patient perspectives on care quality and rehabilitation in geriatric patients affect the length of hospital stay and time of discharge from health institutions (Li et al., 2012; Rodakowski et al., 2017). When it is considered that judgments may differ from culture to culture, and every culture has its own belief systems, perceptions and ideas about health and diseases, the necessity of measurement tools specific to the culture of each society arises (Yılmaz, Dişiz, Göçmen, Usluoğlu, & Alacacioğlu, 2017). In Turkey, the average life expectancy is 78 years. The country is aging rapidly (Elderly with statistics, 2016). The aging population shows its impact on the world's economy. The decline in economic growth, the increase in pensions, as well as the increase in health spending, are particularly harmful to developing countries like Turkey (Gürsoy Çuhadar & Lordoğlu, 2016). In this context, adapting a measurement tool that can assess healthcare and perceptions will be an important step in reducing the damage. In Sweden, where the original scale was developed, the per capita income is higher than that in Turkey, and the budget allocated for the elderly is too high to be compared to Turkey (Taşçı, 2010). This difference in income can affect the service offered to the elderly and the expectations of the elderly. Turkey has strong family ties, and the family is usually responsible for providing care to the elderly. In the Western lifestyle, the elderly are more dependent on healthcare professionals, and this may change the healthcare and perceptions of the elderly (Gürsoy Çuhadar & Lordoğlu, 2016; Taşçı, 2010). Besides these, unlike Sweden, in Turkey, there is no occupational therapy, no physiotherapist for each individual, and some fields of expertise are still under development. Depending on these reasons, it is important that this scale is adapted to the Turkish society in terms of covering all these differences.

Since aging is a global phenomenon, this methodological study is predicted to be quite essential in terms of being a guidance to the caregivers of elderly people, presenting the perception problems of the elderly on care, providing the opportunity to make comparisons with other countries measuring perception of the elderly on care, and reflecting the Turkish culture. Thus, this study was conducted to psychometrically evaluate the Patient Perspective on Care and Rehabilitation Scale in geriatric patients.

2. Materials and methods

2.1. Type of the study

This methodological study was conducted to psychometrically evaluate the Patient Perspective on Care and Rehabilitation Scale in geriatric patients.

2.2. Location and time of the study

The study was conducted with elderly individuals aged 65 years or older who were hospitalized between March 2017 and September 2017 in the five units of internal medicine, gastroenterology, endocrine, urology, and cardiology providing healthcare services with 14 beds in Malatya Turgut Özal Medical Center Hospital as a tertiary institution.

2.3. Population and sample of the study

The population of the study consisted of 232 elderly individuals aged 65 years or older staying in the units with 14 beds of Malatya Turgut Özal Medical Center, in Malatya, Turkey. Since it was aimed to include the elderly individuals hospitalized between the study dates, no sampling method was used. By excluding those who were not able to respond to the questions of the study (14 people) and those who refused to participate in the study (9 people), the study was completed with 209 elderly individuals, and 90% of the population was reached. Based on previous studies, having factor loads of greater than 0.6 for at least 4 factors indicates that the sample size is reliable, but 5–10 times the number of items in the scale in general is the precursor for determining sample size (Denise & Beck, 2013; Polit & Beck, 2006). In this study, the loads of several items were 0.6 or higher, and the sample size was more than 10 times the number of items. The sample size in the study was sufficient for conducting factor analysis.

Inclusion Criteria of the Study:

- Having the competence to communicate
- Agreeing to participate

2.4. Data collection tools and data collection

The Elderly Information Questionnaire prepared by the researcher and the Patient Perspective on Care and Rehabilitation Scale were used to collect the data. The data were collected within 10–20 minutes with the face-to-face interview method by the researcher who read the questions and recorded the answers within the working hours of 5 working days of the week between March and May 2017.

2.4.1. Elderly information questionnaire

It was composed of 9 questions prepared by the researcher and included information about the socio-demographic characteristics and hospitalization details of the patients.

2.4.2. Patient perspective on care and rehabilitation scale (PaPeR)

The scale developed by Wressle et al. (2006) was created to improve and test the psychometric properties of a questionnaire to be used in evaluation of the quality of care and rehabilitation provided to geriatric patients. The scale was also based on a patient-focused approach. The scale consisted of 2 subscales: The 'Respect and Safety' subscale is related to the perception of how the patient is treated by the personnel, whereas, the other subscale, "Information and Participation" is the perception of the patient about getting enough necessary information to be effective in decisions about themselves and provide active participation. It reveals how patients evaluate the quality of their own care and rehabilitation during the hospitalization in all aspects with the subscales. The scale can also be evaluated after discharge and by telephone call. The original scale is a 5-point Likert-type scale and consists of 19 items. As a result of the Turkish validity and reliability study, 2 items were omitted since they were not suitable for Turkish society, and the data were collected with 17 items. The items "I was satisfied with the practices of the occupational therapist" and "I was satisfied with the practice of the physiotherapist" were removed from the scale. According to the procedures applied in Turkey, physiotherapist applications are provided in orthopedics and intensive care services through the demand of the doctor. Not all elderly individuals can benefit from this service. Occupational therapist practices are very rare and such services are provided in some private hospitals. Depending on these reasons, these items were removed from the scale because the answerability of these questions is very low.

The items of the scale are scored from 1 to 5, namely; I strongly disagree (1), I disagree (2), I am neutral (3), I agree (4) and I strongly agree (5). With its 17-item version, the total score of the scale varies between 17 and 85, and a high score signifies an increased quality of

geriatric care and rehabilitation detected by the patient.

2.5. Validity and reliability of the patient perspective on care and rehabilitation scale

Validity and reliability of the Patient Perspective on Care and Rehabilitation Scale were tested in accordance with the related literature and the opinions of experts (Agli, Bailly, & Ferrand, 2017; Lee, Lee, & Aranda, 2017; Yilmaz et al., 2017).

2.6. Language validity

It is inevitable that the validity study of scales in another language reflects the culture in the translated language. Therefore, the Patient Perspective on Care and Rehabilitation Scale was translated from English to Turkish independently by three specialized researchers who were native speakers of Turkish and also had a good command of English. The researchers evaluated the translations in terms of their suitability and comprehensibility in Turkish, and a single form was prepared. It was later translated back to English by a linguist specialist. This translation was compared to the original one in English, reviewed by the researchers, and the Turkish version was prepared by ensuring that the scale is appropriate and comprehensible. It is important to achieve face validity by creating a commission that examines the suitability of the questions of the measurement tool in scale studies with subjects (Gadermann, Guhn, & Zumbo, 2012). In this study, an expert commission was created, and face validity was reached and there was no comments on the questions.

2.7. Internal consistency

Internal consistency refers to the general degree of the correlation of the items forming a scale with each other (Polit & Beck, 2006). In determining the internal consistency level of the scale, Cronbach's Alpha, item-total correlation and factor analysis were used. Factor analysis is used in studies to express several scale items with a few basic variables. In this study, the varimax method was used in the factor analysis, and the eigenvalue was taken into account to determine the number of factors. The number of factors, 2 according to the eigenvalue, which was higher than 1, was determined as "respect and safety", "information and participation".

Item-total score correlation signifies whether or not each of the items in the scale is addible, and it is the criteria to sustain internal consistency. Inter-item correlation should be at least 0.15 (Agli et al., 2017; Denise & Beck, 2013). Cronbach's Alpha reliability coefficient is an indicator of the internal consistency and homogeneity of the items in the scale (Çokluk, Şekercioğlu, & Büyüköztürk, 2014). A high Cronbach's Alpha reliability coefficient indicates that the items in the scale are consistent with each other, and the scale consists of items that control the same property (Çokluk et al., 2014). According to the literature, a Cronbach's Alpha scale reliability of 0.70 and higher shows that the measurement tool is appropriate and adequate.

2.8. Analysis of the study data

For the internal consistency of the evaluation of the data that were collected in the study, Cronbach's α reliability coefficient was used in showing the homogeneity of the items, Pearson's Product-Moment Correlation was used in determining the correlation between the variables, factor analysis was used in measuring the testability for whether a previously defined and limited structure can be validated as a model, Kaiser-Meyer Olkin-Test and Bartlett's Test were used in determining the compatibility of the correlation between the sample and scale items, regression analysis was used in determining the effect between the variables, and numbers percentages were used in determining the other relationships (Çokluk et al., 2014). We performed a factor analysis,

which is fine for an adapted scale. We were omitted 2 items

2.9. Generalizability and limitations

"It may be generalized to the country where the study was conducted but it may not be generalized to other countries." This is because Turkish society has a traditional family type, and elderly people expect that the family provides care for and the needs of the elderly rather than professional healthcare. In general, though, the elderly expect their needs to be met by healthcare professionals, and welcome it more with grace and satisfaction. However, in Turkey, the population is aging rapidly, families are growing smaller, and older family members are becoming increasingly dependent on healthcare professionals (Gürsoy Çuhadar & Lordoğlu, 2016). In comparison, in Scandinavian countries with social states, healthcare professionals meet several needs of the elderly, so elderly people living in these countries may expect more from these professionals (Taşçı, 2010). Due to differences such as the health system, national income, and community expectations, the quality of services provided and received varies between countries. Therefore, the use of this scale, which was validated in Turkey, in other countries may not be appropriate.

2.10. Ethical principles of the study

Regarding Turkish adaptation of the Patient Perspective on Care and Rehabilitation Scale developed by Ewa Wressle, permission was obtained from the author. In order to conduct the research protocol, approval was obtained from the ethics committee affiliated with Inonu University (2017/3-2). The data of the study were collected in accordance with the principles of the Declaration of Helsinki.

3. Results

The results obtained from the study are presented in tables. Table 1 shows the characteristics of the elderly individuals. The mean age of the participants was 71.4 ± 6.5 years (60–90 years), their mean monthly income was 147.9 ± 126.3 (0–1027.5 \$), their mean length of hospital stay was 7.4 ± 7.3 days (1–45 days), the mean number of people sharing the hospital room was 2.1 ± 0.9 (1–7 persons), 47.8% of these elderly people were secondary school graduates, 92.8% were not actively working, 86.1% were married, and 82.3% had an attendant with them (Table 1).

Table 1
Descriptive Characteristics of the Elderly People (n:209).

Characteristics	n	%
Gender		
Female	90	43.1
Male	119	56.9
Educational Level		
Illiterate	91	43.5
Secondary school graduate	100	47.8
High school and above	18	8.6
Employment status		
Yes	15	7.2
No	194	92.8
Marital Status		
Married	180	86.1
Single	29	13.9
Is there an attendant?		
Yes	172	82.3
No	37	17.7
	Min	Max
Age	65.0	90.0
Monthly income	0	1027,5\$
Length of hospital stay	1	45
Number of people sharing hospital room	1	7
	X $\pm$ SD	
		71.4 ± 6.5
		147.9 ± 126.3
		7.4 ± 7.3
		2.1 ± 0.9

Table 2Principal Components Analysis Followed by Varimax Rotation Factor Loadings and Item-Total Correlations of Items of the Scale ($n = 209$).

Scale items	Mean(SD)	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Factor loading	Alpha	Variance
Respect and Safety	36.32(5.49)				0.84	28.3
The personnel listened to me.	4.61(0.89)	.549	.893	.653		
The personnel took my problem seriously.	4.65(0.81)	.542	.893	.655		
I was able to talk with the personnel when I faced with difficulties.	4.43(1.04)	.567	.892	.654		
I felt safe in the room.	4.76(0.81)	.398	.897	.504		
I was respected.	4.69(0.87)	.564	.893	.676		
Personnel worked without stress.	4.63(0.82)	.500	.894	.610		
I am satisfied with the care I got	4.65(0.82)	.491	.895	.553		
I got technical support.	3.88(1.57)	.568	.893	.674		
Information and Participation	33.59(9.33)				0.87	25.4
I received enough information about my own condition.	3.98(1.33)	.673	.888	.722		
I got enough information about the daily works and operations of the room.	4.04(1.35)	.459	.895	.518		
I got enough information about the treatment and care.	3.91(1.37)	.717	.886	.739		
I had a chance to participate in decisions about treatment.	3.63(1.48)	.669	.888	.688		
I had a chance to get information about the effects of treatment.	3.59(1.52)	.689	.887	.707		
I had the opportunity to see my doctor when I deemed necessary.	3.85(1.41)	.557	.892	.622		
I had an opportunity to participate in the discharge plan.	2.77(1.70)	.482	.897	.517		
I know with whom I will be in contact in medical issues.	3.82(1.49)	.582	.891	.608		
I know with whom I will be in contact regarding treatment and care.	3.96(1.35)	.607	.890	.630		
Total	69.91(13.16)				0.89	53.7

Kaiser-Meyer-Olkin Measure of Sampling Adequacy test was conducted before the factor analysis ($KMO = 0.87$, $p:000$), and it was determined that the sample size was suitable for factor analysis. KMO is a statistic developed for the consistency of scale / variable values. In order to apply factor analysis, the value of KMO should be significant. It was reported that factor analysis will not be accurate if this value is not significant (Streiner & Kottner, 2014; Tavşancıl, 2014).

The Turkish version of the Patient Perspective on Care and Rehabilitation Scale consisted of two subscales and seventeen items, while two items were omitted from the scale because their values were low. It was determined in Table 2 that the item-total score correlations of the scale items were between 0.39 and 0.71, the factor loadings were between 0.73 and 0.50, and the Cronbach's Alpha values were between 0.88 and 0.89 for the geriatric perspective on the quality of care and rehabilitation. The Cronbach's Alpha coefficient of this scale developed by Ewa Wressle was 0.79 (Wressle et al., 2006). It was also determined that the total Alpha internal consistency coefficient of the scale here was 0.89 and the total variance was 53.7% (Table 2).

As seen in Table 3, the socio-demographic characteristics of the elderly individuals were cumulatively effective on the geriatric perspective on care and rehabilitation at the rate of 9%. The total effect of the socio-demographic characteristics of the elderly was only 9% on the elderly care and rehabilitation perception scale, and this was a rather weak relationship. The regression values were determined to be $R = .31$, $R^2 = .09$, $F = 2.37$, $p = .014$

R: is the multiple correlation coefficient, indicating the correlation between the dependent variable and the independent variable.

R^2 : is the dependent variable annotation ratio of the independent variable. This value is the result of the calculation of R and is used to explain the regression analysis. Demographic characteristics may explain 9% of the geriatric care perception scale.

F: is the test statistics that is reached by ANOVA which determines whether the regression model is meaningful (Gözüm & Aksayan, 2003; Streiner & Kottner, 2014).

The sex and hospitalization time of the elderly patients as well as the number of people sharing the room had a direct effect on the geriatric perspective on care and rehabilitation (Table 3).

There was a significant difference between the total scale and

Table 3

Explanation of Characteristics of Elderly Patients and Geriatric Perspective on Care and Rehabilitation with Regression Analysis.

Model	Elderly Patients and Geriatric Perspective				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std Error	Beta	t	sig
(Constant)	93.177	14.329		6.503	.000
Age	-.167	.153	-.083	-1.092	.276
Gender	5.426	2.347	.205	2.312	.022
Marital status	-1.358	2.703	-.036	-.502	.616
Educational level	-.805	.925	-.078	-.870	.385
Employment status	-4.983	3.606	-.098	-1.382	.169
Monthly income	-.001	.002	-.030	-.354	.724
In there an attendant	.628	2.428	.018	.259	.796
Length of hospital stay	-.282	.126	-.157	-2.239	.026
Number of people sharing hospital room	-2.296	1.025	-.158	-2.240	.026

subscales of the elderly care and rehabilitation perception and the “sex” and “number of people sharing hospital room”. Perspective of care was higher in males (72.25 ± 11.63) than females (66.83 ± 14.43), both in total and in the subscales. The mean “Respect and Safety” subscale score (36.76 ± 5.13) was higher in the elderly who shared the hospital room with a person, and the mean “Information and Participation” subscale score (43.00 ± 0.00) was high in the elderly who shared the hospital room with seven people (Table 4).

4. Discussion

Numerous studies conducted in Turkey generally examine the attitudes of healthcare personnel towards elderly individuals (Bulut & Çilingir, 2016; Darling, Sendir, Atav, & Buyukyilmaz, 2017). Unidirectional care perception is insufficient to improve geriatric health, and multidisciplinary studies are necessary. This study shows the

Table 4

Explanation of Gender and Number of People Sharing Hospital Room of Elderly Patients and Geriatric Perspective on Care and Rehabilitation.

	Respect and Safety M $\pm$ SD	Information and Participation M $\pm$ SD	Total M $\pm$ SD
Gender			
Women	35.05 $\pm$ 6.52	31.77 $\pm$ 9.66	66.83 $\pm$ 14.43
Men	37.28 $\pm$ 4.33	34.96 $\pm$ 8.86	72.25 $\pm$ 11.63
	t :-2.961 p: .003	t :-2.476 p: .014	t :-3.004 p: .003
Number of People Sharing Hospital room	36.32 $\pm$ 5.42	33.59 $\pm$ 9.33	69.91 $\pm$ 13.16
	F: 2.040 p: .048	F: 2.707 p: .022	F:2.583 p: .027

p* < 0.05 M: mean SD: Standart Deviation t: t-test F: ANOVA.

perspective of the elderly receiving care on how this care was assessed by them. Studies to be conducted by adapting this scale into Turkish society will make it easier to determine geriatric problems and provide an opportunity to make a comparison with other countries. If the world is getting older, protecting and promoting the health of elderly people and looking from their perspectives will increase the quality of healthcare services, strengthen countries and turn them into livable places. Therefore, the objectives of this study are discussed in line with the results in order to describe the Turkish translation, validity, pretest and psychometric test of the Patient Perspective on Care and Rehabilitation Scale in geriatric patients.

While translating a scale into another language, being an expert only in English is not enough, but it is expected to have a command of the field of the related scale whose validity is being tested (Gözüm & Aksayan, 2003). The sentences in the scale and the correlations among them were evaluated meticulously by the researchers who are experts in their fields, and it was decided to gather the Turkish translation of the scale under 17 items as a result of the analysis. While performing this translation, word revisions of the Turkish scale were discussed until a mutual agreement was reached. The study was concluded by reaching a mutual decision that there was no need for content and translation modification of the Turkish version of the Patient Perspective on Care and Rehabilitation (PaPeR) Scale. The results of this study showed that the psychometric properties of the Turkish version of the PaPeR scale were promising.

The Corrected Item-Total Correlation values showing the reliability between the items of this study and the Cronbach's Alpha values showing the homogeneity of the items were considered to be appropriate for the PaPeR scale. In studies, the distinguishing capacity of items with Corrected Item-Total Correlation values of 0.40 and higher values is defined as "very good", that of values between .30 and .40 is defined as "good", and the values between .20 and .30 indicate that the items need to be revised again (Çokluk et al., 2014; Gözüm & Aksayan, 2003). According to another study, it is sufficient for this value to be at least .15 (Streiner & Kottner, 2014). In this study, it was determined that the item-total score correlations of the items of the Patient Perspective on Care and Rehabilitation scale were in the range of .39–.71, so it may be stated that is the items were reliable.

In order to determine whether or not the sample size was sufficient for the factor analysis, Kaiser-Meyer-Olkin (0.87) and Bartlett's (p:000) tests were applied. According to the literature, KMO values of 0.80 or higher are considered very good, and this value is recommended to be at least 0.70 (Polit & Beck, 2006; Streiner & Kottner, 2014). Therefore, the sample size of this study was large enough for factor analysis. Varimax rotation and factor analysis showed that there were two factors with an eigenvalue of higher than 1 in terms of content. In determining the subscales of the scale, the eigenvalue was accepted if it were 1 or higher (Streiner & Kottner, 2014; Tavşancıl, 2014). The first subscale, the "Respect and Safety" factor, is about the patient's perception on how they were treated by the personnel, while the second subscale, the "Information and Participation" factor, is about the perception that they can get enough information that is necessary for

active participation and being effective in the decisions about themselves (Wressle et al., 2006). 4 factors with eigenvalues of higher than 1 were found in the original scale, but they were reduced to two factors since they were heterogeneous and difficult to interpret in terms of meaning. Moreover, the factor loads of some items were low, and this factor structure was obtained with 19 items (Wressle et al., 2006). 2 sub-dimensions were determined in this study according to the factor analysis. In general, there is no occupational therapy that will deal with the patients in many hospitals in Turkey, and it is an unheard profession that recently became popular. The statement "I was satisfied with the practices of the occupational therapist" in the original scale sounded unfamiliar for the elderly individuals. Similarly, response to the statement "I was satisfied with the practice of the physiotherapist" in the original scale was limited because not every patient in Turkey can be examined by a physiotherapist, and the patient is expected to have a special condition requiring physiotherapy. Therefore, these two items were omitted from the scale, and the scale was structured with 17 items. In the study, it was found that the two factors explained 53.7% of the total variance. Wressle et al. (2006) did not determine the explained proportion of the total variance of the original scale (Wressle et al., 2006). In order for a scale to be acceptable, it is stated that the explained total variance should be at least 30%. Internal consistency and the explained total variance were sufficient in this study (Gözüm & Aksayan, 2003; Polit & Beck, 2006; Streiner & Kottner, 2014). In order to determine the construct validity and appropriateness of the scale, having factor loads of higher than .30 for the scale items after the factor analysis is an important criterion in determining the validity of the scale (Terwee et al., 2007). The factor loads were found between .44 and .74 by omitting the items with factor loads of .40 and lower in the study of the original scale (Wressle et al., 2006). The scale factor loads were found between .73 and .50 in the study, and the validity of the scale was appropriate and close to the original scale. A factor that affects the validity of a test is a measure of time invariance (Tavşancıl, 2014). In the study, the Cronbach's Alpha coefficient was determined as 0.89 in the total scale, and between .84 and .87, for the first and second subscales respectively. Cronbach's Alpha coefficients smaller than .40 show that the measurement instrument is not reliable, values between .40 and .59 refer to low reliability, values between .60 and .79 show moderate reliability, and values of .80 or higher show high reliability (Gözüm & Aksayan, 2003; Streiner & Kottner, 2014; Tavşancıl, 2014). Wressle et al. (2006) found the Cronbach's Alpha coefficients for PaPeR between .68 (respect and safety) and .72 (information and participation) (Wressle et al., 2006).

Scale items were created based on the characteristics of the population to be applied on the original scale. In particular, age, fragility and diseases that may accompany were taken into consideration, and it was emphasized that the questions are easy to understand and do not take much time. Furthermore, after the discharge of the elderly people from the hospital, they were interviewed by the service worker, and the items were answered (Wressle et al., 2006). The scale items were easily understood and answered by the elderly in Turkey. After the discharge process, it was thought that there might be a change in the perception

of care, and because of this, without waiting for the elderly to return home after being discharged, the researcher had face-to-face interviews with the elderly people whose discharge dates were close. Wressle mentioned some of the disadvantages of telephone interviews in their study, could not communicate with elderly people who had hearing disorders or mild mental impairments, and considered conducting telephone interviews as the limitation of the study. In the study conducted by Wressle et al., the perceptions of the elderly to get information and participate in decisions were found to be quite high (Wressle et al., 2006). However, in a study conducted in Sweden, 54% of the elderly people reported that they felt they were not sufficiently included in their own care and decisions (Coulter & Cleary, 2001). Patient care and positive scoring are very good in hospitals in Sweden, and patient care provided by community nurses, and post-discharge follow-up systems increases satisfaction (Coulter & Cleary, 2001; Wressle et al., 2006). The majority of healthcare services with a percentage of 80% in Turkey are covered by the state. Therefore, the majority of the public is receiving services in the hospitals that the government funds in order to take advantage of both cheaper and more comprehensive implementation opportunities (Gürsoy Çuhadar & Lordoğlu, 2016). Unlike some private hospitals, the opportunity to receive information and participate in decisions is very limited in these state hospitals, where treatment-oriented care is provided, patients generally learn their discharge dates too late, and post-discharge information is not provided to all patients with sufficient care. However, fully-fledged discharge training is provided for patients with special, severe (cancer, consumptive, heart disease) conditions (Özlü, Kılıç, & Yayla, 2015; Turla, Karaarslan, Kocakaya, & Pekşen, 2005). According to the results reported by Turla et al., 89.9% of 306 surgical patients stated that they were provided explanation about "why they should have surgery", but 74.2% of them stated that "they did not find this explanation satisfactory," 85% said they did not know how many days they would stay in hospital after surgery, and 83% stated that they were not informed about what would change in their post-operative life (Turla et al., 2005). Likewise, after the patient has gone home in Turkey, unlike in Sweden, they are not monitored by medical staff after discharge. Instead, during the discharge process, the patient is told to visit the hospital in certain intervals. In secondary and tertiary healthcare institutions, the patient is at their own discretion (Taşçı, 2010; Wressle et al., 2006). Therefore, if patients are contacted to get information through telephone, they may be surprised by being called by the healthcare personnel after discharge and might not provide answers. However, the results obtained in this study showed high satisfaction with the received care. It is believed that the expectation from the service provided by the healthcare personnel being low and the elderly being provided care by the family are factors that increase satisfaction.

On the other hand, detected care quality includes more aspects than patient satisfaction. In one study, the determinants of detected satisfaction of the patient were described as patient characteristics and psychosocial factors (Wressle et al., 2006). The age of the patient has been reported as the most consistent determinant. This suggests that older people tend to be more satisfied with care than younger people. Anderson et al. found that complaints about hospitals in their research were expressed by relatives, neighbors and friends of these older people rather than the elderly themselves (Anderson, Allan, & Finucane, 2000). It is considered that the results would be low if these questions about getting information in the hospital and participating in the decisions were directed to young patients instead of elderly patients in Turkey. Since the elderly are often considered to have a philosophy of being convinced / happy with less, even the scale items for the elderly participants and asking their opinions have made the elderly people happy. Such a scale is required in Turkey to improve care standards.

Sex influences preference, belief and perspectives (Yee-Melichar, Boyle, Wanek, & Pawlowsky, 2014). Healthcare and perception are different between men and women (Rodriguez & Young, 2005). According to one study, in the process of decision-making and preference

related to their health, elderly men care about the idea of professionals, but elderly women care about the idea of their family (Rodriguez & Young, 2005). Another study found that sex was the determining factor in perceiving one's own health (Yee-Melichar et al., 2014). Perspective of care and rehabilitation was higher in male patients than female patients who participated in this study. "This finding may be due to the differences between the positions of men and women in Turkish culture."

The number of people in the hospital room affected the care and rehabilitation perceptions of the elderly. An increase in the number of people who share the room can trigger potential risks. Sharing the room with too many people can rise the possibility of getting infected, environmental (light, noise, safety) problems, limitations in common areas of sharing, or privacy problems, however, it may also be positive, such as joint decision-making, interaction, getting social support, finding opportunities to learn more easily, strengthening each other, and benefiting others in the knowledge that one demands. Therefore, when the possible risks and benefits are evaluated, it may be expected that the "Respect and Safety" perspectives of the elderly who stayed with one person were high and the "Information and Participation" perspectives of the elderly who stayed with seven people were high.

When the Turkish version of the PaPeR scale was compared to its original version, it was found to be similar to the original version in terms of the entire scale and the subscales, and it may be asserted in line with the literature that it is highly reliable. According to the results of this study, it is possible that Turkish elderly patients detected similar care and rehabilitation quality to the elderly population in Sweden where the original scale was developed. The findings of this scale that was applied to elderly people in Turkey were similar to the findings of the original version of the scale which was developed in Sweden. It was determined in this study that the psychometric characteristics of the Turkish version of the PaPeR scale were promising, and the results were similar to the ones reached by the original scale by Wressle.

5. Conclusion and recommendations

The scale adapted to Turkish society is essential in terms of standardization. The validity and reliability of the study were confirmed by the sample that consisted of Turkish elderly patients. Turkish adaptation of the PaPeR scale showed reliability and validity on a statistically acceptable level. The application of a methodology accepted by the scientific literature allows the comparison of the obtained data in different languages. It seems from the patients' perspective that both Swedish and Turkish patients' perceived care matches their needs. It is recommended to apply this scale in different regions and populations in Turkey and compare the results to those obtained in other countries. The scale is also recommended to be used as both a research tool and a screening tool in the clinical setting and after discharge.

Conflict of interest statement

The authors declare no conflict of interest.

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