



Validity and Reliability of Turkish Version of the Schizophrenia Hope Scale Introduction

Şizofreni Umut Ölçeğinin Türkçe Versiyonunun Geçerlik ve Güvenirlik Çalışması

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ABSTRACT

This study aimed to evaluate the validity and reliability of the Turkish version of the Schizophrenia Hope Scale (SHS). This methodological study was carried out with 214 participants diagnosed with schizophrenia who were followed up in the psychiatry outpatient clinics of a university hospital between August 2021 and August 2022. Data were collected using an Information Form and the Schizophrenia Hope Scale (SHS). Language and content validity, exploratory and confirmatory factor analyses, item-total correlation, Cronbach alpha coefficient, and test-retest reliability methods were used in the validity and reliability analysis of the scale. As a result of the exploratory factor analysis, no item was excluded from the scale and it was determined that the scale has nine items and a single-factor structure. The single-factor structure of the scale was confirmed with the confirmatory factor analysis. The Cronbach Alpha coefficient of the scale was 0.901 and the factor loads ranged between 0.70 and 1.0. The test-retest correlation coefficient was $r=0.959$. The Turkish version of the scale was found to be valid and reliable. SCH is important since it represents the subjective meaning of hope from schizophrenic patients' perspective and allows an easier measurement of the level of hope in this population. Mental health professionals can use SHS to determine or increase the level of hope of schizophrenia patients in their studies.

Keywords: Schizophrenia, hope, reliability and validity.

ÖZ

Bu çalışma, Şizofreni Umut Ölçeği (ŞUÖ)'nin Türkçe versiyonunun geçerlilik ve güvenilirliğini değerlendirmek amacıyla yapılmıştır. Metodolojik tipte planlanan çalışmanın verileri, Ağustos 2021-Ağustos 2022 tarihleri arasında bir üniversite hastanesinin psikiyatri polikliniklerinde takip edilen şizofreni tanısı almış 214 katılımcı ile yapıldı. Verilerin toplanmasında; Bilgi Formu ve Şizofreni Umut Ölçeği (ŞUÖ) kullanıldı. Ölçeğin, geçerlik-güvenirlik analizinde dil ve kapsam geçerliliği, açıklayıcı ve doğrulayıcı faktör analizi, madde-toplam puan korelasyonu, Cronbach Alfa katsayısı ve test-tekrar test güvenirlilik yöntemleri kullanıldı. Açıklayıcı faktör analizi sonucu ölçekten madde çıkarılmamış, ölçeğin dokuz maddeli ve tek faktör yapısına sahip olduğu bulundu. Ölçeğin tek faktörlü yapısı, doğrulayıcı faktör analizi kullanılarak doğrulandı. Ölçeğin Cronbach Alfa katsayısı 0,901 olduğu ve faktör yüklerinin 0,70 ile 1,0 aralığında değiştiği saptandı. Ayrıca test-tekrar test korelasyon katsayısının $r=0,959$ olduğu bulundu. Ölçeğin Türkçe versiyonunun geçerli ve güvenilir bir araç olduğu belirlendi. ŞUÖ, şizofreni hastalarının perspektifinden umudun öznel anlamını temsil etmesi ve bu popülasyondaki umut düzeyinin daha kolay ölçülmesine olanak sağlaması açısından önemlidir. Ruh sağlığı profesyonelleri, şizofreni hastalarının umut düzeylerini tespit etmeye veya arttırmaya yönelik yapacakları çalışmalarda ŞUÖ'yü kullanabilirler.

Anahtar sözcükler: Şizofreni, umut, güvenilirlik ve geçerlilik.

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Introduction

Hope has been a concept of interest and research for centuries and concerns many fields (Öz 2010). Many definitions have been proposed for hope, such as one's inner power to overcome obstacles and a positive perspective about the future (Bressan et al. 2018). The idea that the concept of hope should also be addressed in the health field was first expressed by psychiatrist Karl Menninger in 1959. Thus, it has become a topic of interest in the health field in recent years (Cohen and Cutcliffe 2007, Bressan et al. 2018).

In the literature, it was stated that the concept of hope has an important effect on the recovery of both physical and mental illnesses (Şahin Altun and Olçun 2018). The American Psychiatric Association (APA) emphasizes hope as one of the determinants of the recovery process of patients with severe mental disorders (APA 2005). Schizophrenia, which is a severe mental disorder, is a chronic disease characterized by remission and exacerbation episodes and leads to deterioration in many areas such as perception, attention, learning, memory, motor activities, and social cognition (Barut et al. 2016, Şahin Altun and Olçun 2018). It is unusual for an individual to be diagnosed with schizophrenia, live with this diagnosis throughout life, use medication continuously, and have relapses and repeated hospitalizations (Ehrlich-Ben Or et al. 2013). Schizophrenia also causes problems in many areas such as daily life skills, social relations, and communication skills and the individual has difficulty adapting to society (Sharaf et al. 2012, Şahin Altun and Olçun 2018). Those who are most exposed to stigma and discrimination are the individuals diagnosed with schizophrenia; they are estranged from society and pursue isolated life (Ehrlich-Ben Or et al. 2013). Such situations cause individuals to lose hope, worsen disease symptoms, and delay recovery (Barut et al. 2016).

Hope is an essential factor that initiates and accelerates the recovery process in schizophrenic individuals and an important coping mechanism that increases individuals' motivation while fighting the disease (Şahin Altun and Olçun 2018, Sari et al. 2021, Öztürk and Şahin Altun 2022). In the studies conducted with individuals with schizophrenia, it was found that hope increases levels of functional improvement, self-efficacy, self-esteem, quality of life, and disease compliance (Lysaker et al. 2009, Oles et al. 2015, Vrbova et al. 2017, Coşkun and Altun 2018). It was also reported that hope is effective in the development of coping skills and insights, acceptance by society, employment, and development of productivity in individuals with schizophrenia (Lysaker et al. 2005, Coşkun and Altun 2018, Işık and Ergün 2020). However, it is seen in the literature that individuals diagnosed with schizophrenia have lower levels of hope compared to the healthy population and that those who are hopeless have high levels of anxiety, depression, suicide attempt, and internalized stigma (Lyu and Zhang 2014, Jakhar 2017, Olçun and Şahin Altun 2017, Kavak and Yılmaz 2018, Liu and Zhou 2020, Wang et al. 2020). Therefore, it is essential for mental health professionals to

determine or try to increase the level of hope in individuals with schizophrenia.

Mental health professionals may face difficulty determining an appropriate hope scale to use for assessment while researching hope with schizophrenic individuals. A hope scale has been developed for various patient groups; however, no valid and reliable scale measures hope in individuals with severe mental disorders. In international studies, the Snyder Hope Scale, Herth Hope Scale, and Miller Hope Scale are frequently used to measure the level of hope in individuals with schizophrenia (Choe 2014; Oles et al. 2015; Liu and Zhou 2020). Although these tools have good validity and reliability, none of them have been validated for schizophrenic patients. In studies conducted in our country, the level of hope of individuals diagnosed with schizophrenia is frequently assessed with the Herth Hope Scale (HHS) (Olçun and Şahin Altun 2017; Kavak and Yılmaz 2018; Öztürk and Şahin Altun 2022). The Herth Hope Scale (HHS) was developed to evaluate hope in cancer patients and their families (Herth 1991). However, hope is a complex and multidimensional concept; therefore, the emphasis on each trait in hope scales should differ according to the target population. In individuals with schizophrenia, hope has different aspects such as more emotional and spiritual meanings, expectations of a better future, and energy of life (Choe 2014, Şahin Altun and Olçun 2018). For this reason, it is thought that there is a need for a high-quality tool prepared specifically for individuals with schizophrenia. In light of this information, this study aimed to adapt the Schizophrenia Hope Scale (SHS), which was developed by Choe (2014) to determine the levels of hope in individuals diagnosed with schizophrenia, into the Turkish language and test its validity and reliability. With this study, an important and up-to-date scale will be presented to the field. It is also thought that the scale will contribute to mental health professionals in determining the levels of hope of individuals with schizophrenia and providing better quality treatment and care to individuals. In this context, in this study, an answer was sought to the question "Is the Schizophrenia Hope Scale a valid and reliable scale for the Turkish language and culture?"

Method

The research data were collected from individuals diagnosed with schizophrenia who applied to the psychiatry outpatient clinics of a university hospital in the Eastern Anatolia region between August 2021 and August 2022.

Sample

The population of the research consisted of individuals with schizophrenia who applied to the psychiatry outpatient clinic of the determined university hospital. In an adaptation of a measurement tool to another culture, it is recommended to work with a sample of 5-10 times the number of items in the scale (Akgül 2005). In the literature, it is also reported that the minimum sample size should be 100 in order to establish the construct validity (factor analysis) of a scale (Şencan 2005). For this reason, the aim was to conduct the study with more than

100 participants who applied to the psychiatry outpatient clinic between the specified dates and met the inclusion criteria. The sample consisted of 214 individuals with schizophrenia who applied to the psychiatry outpatient clinic between the specified dates and met the inclusion criteria of the research.

Inclusion criteria of the research: volunteering to participate in the study, not being in the acute exacerbation period of the disease, having no hospitalization in the last six months, having no communication problems that would prevent interviewing, and having no diagnosis of accompanying mental disorders that would affect the levels of hope (depression, substance use disorder, etc.; confirmed in cooperation with the physician).

Data Collection

Within the scope of the research, primarily, necessary permission was received from the author of the Schizophrenia Hope Scale (SHS-9) via e-mail. Ethics committee approval (dated 07/13/2015 and numbered 4) was taken from the Ethics Committee of Atatürk University Faculty of Health Sciences and institutional permission was taken from the hospital where the study was conducted. Prior to the forms, all participants were informed about the research and their verbal and written consent was taken. The patients were also informed that they could withdraw from the study at any time and that their data would be kept confidential. The data were collected by the researcher with the face-to-face interview technique in private interview rooms in accordance with patient privacy. The questions in the forms were answered by the participants in approximately 10-15 minutes by marking the most suitable options for them.

Data Collection Tools

In the study, the Information Form and the Turkish version of SHS were used as data collection tools.

Information Form

The information form was created by the researchers in line with the literature (Coşkun and Altun 2018, Kavak and Yılmaz 2018, Şahin Altun and Olçun 2018) and includes 11 questions regarding the characteristics such as gender, age, marital status, educational status, place of residence, and duration of disease.

Schizophrenia Hope Scale (SHS)

The scale was developed by Choe (2014) to determine the levels of hope of individuals diagnosed with schizophrenia. The scale consists of 9 questions in total and has a 3-point Likert-type rating scale (0=disagree, 1=agree 2=strongly agree). The total score obtained from the scale is between 0-18. The scale does not have a cut-off point and a high score on the scale indicates a high level of hope of individuals with schizophrenia. The Cronbach alpha value of the original version of the scale was 0.92 (Choe 2014).

Statistical Analysis

SPSS 22 and AMOS 24 package programs were used for data analysis. The normality distribution of the data was evaluated

with the Kolmogorov-Smirnov test and the data did not show normal distribution. Number, mean, percentage distributions, and standard deviation were used in the analysis of descriptive data. Kendall's coefficient of concordance (W) was used for content validity. Exploratory and confirmatory factor analyses, internal consistency analysis, Cronbach alpha, Spearman-Brown, Guttman's Split Half, item-total correlation, and item analyses were used in the adaptation of the scale to Turkish. The results were evaluated at a significance level of $p < 0.05$ and a confidence interval of 95%.

Results

Participants' Characteristics

The mean age of the participants was 41.49 ± 12.40 ; the mean age at the onset of the disease was 29.15 ± 11.56 . Of the participants, 77.1% were male; 52.3% were single; 44.9% were primary school graduates; 52.3% were unemployed; 45.8% perceived their economic status as moderate; 58.4% did not have a diagnosis of schizophrenia in their first-degree relatives (Table 1).

Validity Analyses

Language and Content Validity

The scale was translated into Turkish by two experts in the field of foreign languages who are familiar with the concepts in the expressions and know both languages. The translated version was assessed and the best Turkish translation was transformed into a single form by the researchers. For the scale, the opinions of 10 experts (associate professors and professors) were received. Each item in the scale was evaluated in terms of cultural, linguistic, and theoretical appropriateness. Experts were asked to evaluate the measurement degree of each item in the scale on a four-point Likert-type scale (1: Not appropriate, 2: Appropriate, but minor revisions are required, 3: Quite appropriate, 4: Completely appropriate). Expert opinions were analyzed with Kendall's coefficient of concordance (W), and accordingly, no difference was determined between the opinions of the experts ($W=0.21$; $p=0.012$). For language validity, the translation-back translation method was used as well, and the English translation of SHS was made by two linguists. The compliance between the translated version of the scale from Turkish to its original language and the original version was evaluated and the process for translation into Turkish was completed.

Pilot study

Prior to data collection, it is recommended to perform a pilot application to test the intelligibility of the scale on target population (Şenol, 2005). In this context, a pilot application was performed with 26 individuals who had similar characteristics to the sample to be studied. Since the scale was found to be intelligible after the pilot application, no changes were made on the scale and the decision to apply it to the population was made. The sample group included in the pilot application was not evaluated.

Table 1. Distribution of the Sociodemographic Characteristics of the Participants (n=214)

Characteristic		X±SD	Min-Max
Age (years)		41.49±12.40	19-70
Disease Age		29.15±11.56	10-69
		n	%
Age	18-25	21	9.8
	26-35	51	23.8
	36-50	90	42.1
	51-65	43	20.1
	66+	9	4.2
Disease Age	10-18	38	17.8
	19-25	64	29.9
	26-35	53	24.8
	36-50	47	22.0
	51+	12	5.6
Gender	Female	49	22.9
	Male	165	77.1
Marital status	Single	112	52.3
	Married	102	47.7
Educational status	Illiterate	19	8.9
	Primary/Secondary	96	44.9
	High School	78	36.4
	University	21	9.8
Living place	City	176	82.2
	County/Town	23	10.7
	Village	15	7.0
People living with together	Family	172	80.4
	Alone	12	5.6
	Friends	4	1.9
	Nursing home	14	6.5
	Others	12	5.6
Employment status	Not working	112	52.3
	Working	81	37.9
	Retired	21	9.8
Social security	Yes	141	65.9
	No	73	34.1
Economic status	Low	63	29.4
	Middle	98	45.8
	High	53	24.8
Family history of mental disorder	Yes	89	41.6
	No	125	58.4

SD: Standard deviation

Construct Validity: Kaiser Meyer Olkin (KMO) and Bartlett tests were used to examine the suitability of the data for factor analysis. KMO value was 0.90 and Bartlett test was 1027.942, $p < 0.000$ (Table 2).

The factor structure of SHS was analyzed using exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Analyses were performed with nine items on the scale. As a result of EFA, the number of factors with an eigenvalue greater than 1 was one and nine items of the scale were gathered under a single factor. The single factor explained 56.84% of the total variance. The factor loads of the items ranged between 0.54 and 0.83 and the eigenvalue of the single factor was 5.11 (Table 2).

DFA was performed to test the fitness of the model to the data and χ^2/df , CFI (Comparative Fit Index), NFI (Normed Fit Index), GFI (Goodness of Fit Index), AGFI (Adjusted Goodness of Fit Index), TLI (Tucker- Lewis Index), RMSEA (Root Mean Square Error of Approximation) were evaluated according to the given criteria. The following values were obtained: $\chi^2/df=2.194$ ($\chi^2=53.725$ $df=25$); CFI=0.97, TLI=0.96; GFI=0.95; NFI=0.95, and RMSEA=0.073 (Table 3). In addition, the t-values between the items were significant at the $p < 0.05$ level. Factor loads of the scale were between 0.70 and 1.0 (Figure 1).

Reliability Analysis

The item-total correlation coefficients of the scale were between 0.465 and 0.764. The Cronbach alpha coefficient of SHS was 0.901, the Spearman-Brown correlation coefficient was 0.888, and the Guttman Split-Half coefficient was 0.873 (Table 4). In addition, the Cronbach Alpha coefficient was 0.853 for the first half (first five items) and 0.784 for the second half (last four items). The correlation between the two halves was 0.798.

For the test-retest reliability of the scale, SHS was re-applied to a group of 48 individuals selected from the study group 1 month

later and the test-retest correlation coefficient between the first and second applications was $r=0.959$ ($p < 0.001$). A strong and positive correlation was determined between the SHS test-retest scores. As a result of the dependent samples t-test, which was performed to determine the difference between the mean scores obtained from the first and second measurements, no statistically significant difference was determined between the measurements ($p > 0.05$; Table 5).

Discussion

This study aimed to determine the validity and reliability of the Turkish version of SHS which was prepared to evaluate the levels of hope of individuals diagnosed with schizophrenia. In the study,

Table 3: Confirmatory Factor Analysis Results of SHS

Fit Indices	Values Obtained from the Scale	Results
χ^2/df	2.194	Acceptable Fit
CFI	0.972	Perfect Fit
TLI	0.957	Perfect Fit
GFI	0.947	Acceptable Fit
NFI	0.950	Perfect Fit
AGFI	0.903	Acceptable Fit
RMSEA	0.073	Acceptable Fit

SHS: Schizophrenia Hope Scale

Table 2: Factor Structure, Eigen Values and Explained Variance Value of SHS

Items	Factor 1
1. There is a better future ahead of me.	0.830
8. I am confident about my future.	0.827
7. I am confident about my life.	0.811
2. I will be happy in the future.	0.810
4. My future is bright.	0.778
9. My life is meaningful.	0.721
5. I am excited about my life now.	0.715
3. I am getting better every day.	0.705
6. I plan my future.	0.547
Eigenvalue	5.116
Explained Variance (%)	56.846
KMO	0.90
Bartlett test	1027.942

KMO= Kaiser Meyer Olkin; SHS: Schizophrenia Hope Scale

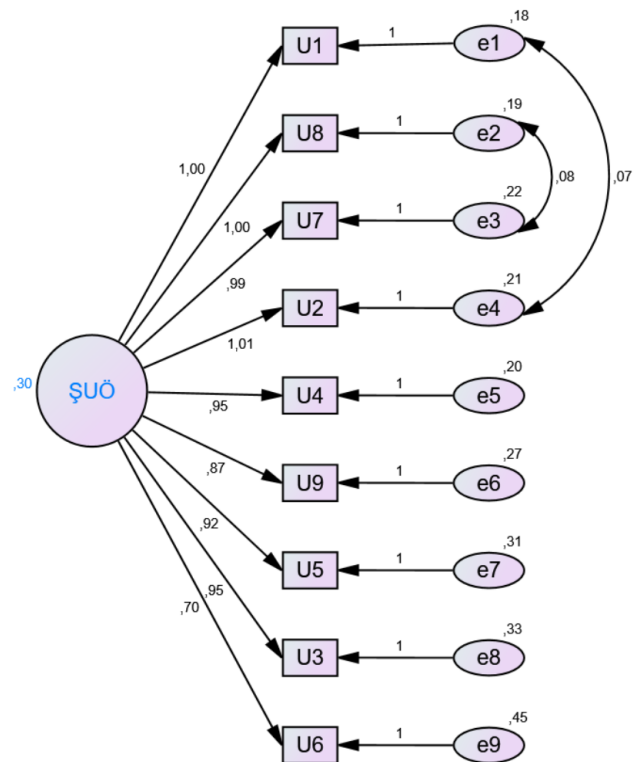


Figure 1: Path Diagram of the Schizophrenia Hope Scale

Table 4: Reliability Analysis Results of the SHS (n=214)

Items	Item Total Score Correlation	When Substance Is Removed Cronbach Alpha Coefficient
1. There is a better future ahead of me.	0.764	0.883
8. I am confident about my future.	0.758	0.883
7. I am confident about my life.	0.739	0.884
2. I will be happy in the future.	0.733	0.885
4. My future is bright.	0.706	0.887
9. My life is meaningful.	0.639	0.892
5. I am excited about my life now.	0.634	0.892
3. I am getting better every day.	0.618	0.894
6. I plan my future.	0.465	0.906
	Cronbach Alfa	
	0.901	
SHS	Spearman Brown	
	0.888	
	Gutman Split Half	
	0.873	

SHS: Schizophrenia Hope Scale

Table 5: Test-Retest Analysis Results of SHS and Correlation Between them

	SHS	
	X±SD	Min-Max
First Evaluation (n=214)	9.52±4.88	0-18
Second Evaluation (n=48)	10.75±5.58	0-18
r value	0.959*	
t value	0.535**	
p value	0.599	
Cronbach Alfa	0.896	

*p<0.01; **Dependent sample t-test; SHS: Schizophrenia Hope Scale; SD: Standard deviation

language validity, construct validity, and reliability analyses were performed to determine the validity of the scale. Primarily, language validity analyses were performed in order to evaluate the validity of SHS for its adaptation to Turkish culture. The scale was translated into Turkish by two linguists and the opinions of the experts were taken to evaluate the content, language, and cultural appropriateness of the items. Kendall's coefficient of concordance (*W*) was used to evaluate the agreement between the expert opinions regarding the content validity of the scale. According to Kendall's test, it was determined that the agreement among experts was high and that the scale met the content validity criteria (Polit and Beck 2006). Furthermore, with the translation-back translation method, it can be interpreted that the scale represents the subject to be measured and was prepared in accordance with Turkish culture.

In factor analysis, the correlated items are grouped into a category and fewer factors are obtained (Tavşancıl 2019). In this study, before the determination of the factor structure of the scale, KMO and Bartlett tests were performed to evaluate the sample size and suitability for factor analysis. In the literature, it was reported that the KMO value is excellent as it approaches 1, very good around 0.80, weak around 0.70 and 0.60, and unacceptable if it is below 0.50 (Tavşancıl 2019, Alpar 2020). Since the KMO value was found as 0.90 in this study, it can be stated that the sample size and the data structure were quite suitable for factor analysis.

In the study, when the factor structure of the scale was examined, it was determined that all items of the scale were grouped under a single factor and that the single factor explained 56.84% of the total variance. In the literature, it was reported that the explained variance of the factor structure should be 40% and above (Grove

et al. 2012, Baştürk et al. 2013). Accordingly, it can be said that the factor structure of SHS is appropriate and acceptable. In the item factor structure of the scale, factor loads were between 0.54 and 0.83. It was reported that the number of items collected under a factor should be greater than three and that the factor loads should be 0.30 and above in order to determine the factor structure of the items (Tavşancıl 2019). When the factor load of each item of the scale was examined, it was seen that the values were 0.30 and above. Therefore, no item was excluded from the scale and it was determined that the factor values of the scale demonstrated a strong factor structure. These data are also consistent with those of the original scale. In the study conducted by Choe (2014), the work on the scale started with 17 items. As a result of the factor analysis, eight items were excluded and it was found that the scale had nine items and a single-factor structure. The total explained variance of the single-factor structure was reported as 61.77% (Choe 2014). In this study, it was determined that the construct validity of SHS with its nine-item version was suitable.

Confirmatory factor analysis is one of the most frequently used methods in the development of measurement tools. This method ensures the measurement of the construct validity of the data and the scale through a model that is predetermined according to the theoretical structure of the scale (Öner 2009, Aktürk and Acemoğlu 2012, Çapık 2014). A series of fit indices such as χ^2/df , CFI, TLI GFI, NFI, AGFI, and RMSEA were determined in order to evaluate the fitness of the model. In the tested model, excellent goodness of fit is reported when χ^2/df value is less than 2 and acceptable goodness of fit when the value is between 2 and 3. (Kline 2011, Çapık 2014). Again, excellent goodness of fit is reported when the RMSEA value is less than 0.05 in the model and acceptable goodness of fit is reported when the value is between 0.05 and 0.08. The model also shows that CFI, TLI GFI, NFI, and AGFI indicate excellent goodness of fit between 0.95 and 1.00 and acceptable goodness of fit between 0.90 and 0.95 (Kline 2011, İlhan and Çetin 2014). In light of these findings, it was determined that the scale had an acceptable level of fit (Table 3). As a result of CFA, it was determined that the factor distributions of the items varied between 0.70 and 1.00 (Figure 1). According to these data, it can be suggested that the single-factor structure shows good fitness with the data and that the scale items are related to the scale.

In order to determine the reliability of the scale, the Cronbach alpha coefficient, which is one of the commonly used methods in the reliability evaluation of the scales, was used. A Cronbach alpha coefficient as close to 1 as possible indicates that the relationship between the items is consistent and that the scale consists of items that represent the same theoretical structure (Schumacker and Lomax 2004). A value below 0.60 indicates that the scale is not reliable (Şencan 2005, Çapık 2014). In the original study (Choe 2014), the total Cronbach alpha coefficient of SHS was 0.92. In this study, the Cronbach alpha coefficient was found to be 0.90 (Table 4). According to this finding, it was found that SHS is highly reliable in measuring the levels of hope in individuals with schizophrenia.

Split-half test reliability shows the consistency between the scores on the scale and aims to find the reliability of the whole test by examining the relationship between the two halves of the scale (Schumacker and Lomax 2004, Tavşancıl 2019). Guttman Split-Half and Spearman-Brown values were used to determine the split-half test reliability values. A value above 0.70 indicates that the scale is reliable (Kline 2011). In this study, it was determined that the Guttman Split-Half, Spearman-Brown, and Cronbach alpha coefficients of both halves were over 0.70 (Table 4). According to these data, it can be suggested that SHS has a high level of reliability for the Turkish population.

In this study, test-retest analyses were performed to determine the reliability criteria and evaluate the invariance of the tool over time. A high correlation coefficient between two measurements repeated at regular intervals indicates the invariance of the measurement (Çapık 2014). In the literature, it was reported that the correlation coefficient should be 0.70 or greater (Schumacker and Lomax 2004, Tavşancıl 2019). In this study, the correlation coefficient was found to be 0.95; therefore, SHS was found to have test-retest reliability in terms of the total score. Moreover, the dependent samples t-test was performed to test the similarity between the results of the two measurements and no significant difference was determined between the mean values according to the results (Table 5). This finding indicated that similar results are obtained in repeated measurements of SHS and that it was a quite consistent scale.

The limitations of the study include the fact that the study was conducted in a single center and that another scale could not be used as a parallel form.

Conclusion

In this study, it was determined that SHS is a valid and reliable tool for the Turkish language and culture. It was found that the scale has nine items and a single-factor structure. The total score obtained from the scale is between 0-18. High scores on the scale indicate that individuals diagnosed with schizophrenia have high levels of hope.

This scale is extremely important since it represents the subjective meaning of hope for individuals with schizophrenia and allows a more accurate and easy measurement of hope in this population. It is thought that the scale will make important contributions to the field. Especially in the field of psychiatric nursing, it is essential to determine the levels of hope of individuals with schizophrenia. Using this scale, psychiatric nurses can determine their patients' levels of hope and plan appropriate nursing interventions. Thus, psychiatric nurses will play an important role in making changes in schizophrenic patients' lives and developing positive expectations for their future.

In light of this information, SHS is a standardized tool that can be used in studies to determine or increase the level of hope of individuals with schizophrenia. Mental health professionals are recommended to benefit from SHS in their future studies to be carried out with schizophrenia patients.

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Addendum. Turkish version of the Schizophrenia Hope Scale**ŞİZOFRENİ UMUT ÖLÇEĞİ (ŞUÖ)**

Instruction: Dear Participant, below are statements about you. Please read each item carefully and check the option that best describes you. There are no right or wrong answers. Please express your views on all questions.

For each question, please mark only one of the options.

	KATILMIYORUM	KATILIYORUM	KESİNLİKLE KATILIYORUM
1.Önümde daha iyi bir gelecek var.	0	1	2
2. Gelecekte mutlu olacağım.	0	1	2
3.Her gün daha iyiye gidiyorum.	0	1	2
4.Geleceğim parlak.	0	1	2
5. Yaşamım hakkında heyecanlıyım.	0	1	2
6. Geleceğimi planlıyorum.	0	1	2
7.Hayatım konusunda güven duyuyorum.	0	1	2
8.Geleceğim konusunda güven duyuyorum.	0	1	2
9. Hayatımı anlamlı buluyorum.	0	1	2

Scoring

Number of dimensions and items: It consists of one dimension and 9 items.

Evaluation of the scale: There are no reverse items in the scale. The score that can be obtained from the scale varies between 0 and 18. The scale does not have a cut-off point and a high score on the scale is interpreted as a high level of hope in individuals diagnosed with schizophrenia.