

Validity and Reliability of the Seizure Self-Efficacy Scale for Children with Epilepsy

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ABSTRACT

Introduction: This study aims to adapt the Seizure Self-Efficacy Scale for Children (SSES-C) into Turkish and then assess its validity and reliability in children with epilepsy.

Methods: The study sample consisted of 166 children (aged 9-17 years) with epilepsy who attended of Akdeniz University Hospital, Antalya Training and Research Hospital, and Bursa Dortcelik Children's Hospital Pediatric Neurology Clinics between July 2012 and March 2013. All research data were collected by a researcher in face-to-face interviews using Child Information Form, Seizure Self-Efficacy Scale for Children and Children's Depression Scale. The Seizure Self-Efficacy Scale for Children is a 15-item, 5-point Likert scale designed by Caplin et al. (2002).

Results: The linguistic adaptation and validation of the scale was conducted by seven experts. To evaluate the content validity of the scale, we elicited judgments from a panel of 10 content experts. The expert judgments showed that the correlation between the items on the scale was fairly

good (Kendall's $W=0.411$, $p<0.001$, ki-kare: 57.495). Load factor of 40% and a large factor analysis included analysis of substances and two factors accounting for 49.67% of the total variance explained. We calculated Cronbach's alpha coefficient for the internal consistency and the full-scale score showed good internal consistency (alpha 0.89). Within the context of reliability studies, it was found correlations varying between 0.98-0.74 for the two sub-factors of the scale. Test/retest correlation coefficients were significant ($p<0.01$) and high ($r=0.99$). In parallel forms reliability, the correlations between the Seizure Self-Efficacy Scale for Children and Children's Depression Rating Scale were found to be negative, moderate and statistically significant ($r=-0.58$, $p<0.001$).

Conclusion: The measurements conducted on the Turkish version of the Seizure Self-Efficacy Scale for Children showed that it is consistent with the original scale, valid and reliable for Turkish society.

Keywords: Self-efficacy, child, epilepsy, validity, reliability

INTRODUCTION

Epilepsy is one of the most prevalent chronic diseases of childhood and adolescence (1). It affects >65 million people worldwide (2), and 10.5 million of them are children under the age of 15 years. The World Health Organization has reported that the proportion of the general population with epilepsy is 6 per 1000 in developed countries and 18.5 per 1000 in developing countries (3,4). Although there is a limited number of studies conducted to determine the incidence and prevalence of epilepsy in Turkey, Topbaş et al. (5) reported that the prevalence of epilepsy was between 0.8% and 1.7% in our country.

Epilepsy has a significant impact on maintaining the individual's physical, psychological, and social well-being. Epidemiological studies indicate that children with epilepsy are 4.8 times more likely to have a psychological problem than healthy children (6) and two times more likely than those with other chronic physical illnesses (7). Unlike other chronic diseases, it is extremely difficult to predict when and where epileptic seizures will occur, which significantly reduces the perception of the child to control their own lives (8). In this way, epilepsy causes social limitations in the daily activities of children (9). Individuals with epilepsy may experience feelings of low self-esteem, fear, stigma, anger, and hopelessness so they may exhibit passive behaviors. These factors may combine to impair the individual's psychosocial functions, self-competence, and quality of life, thus leading to suicide. Medical treatment and the side effects of treatment can also affect the relationship between the patient and caregiver as well as self-efficacy and compliance (10).

Self-efficacy is one of the most widely applied theories in predicting health behavior. It is an important stabilizer in patients with chronic disease (11). The concept of self-efficacy was originally introduced by the American psychologist Albert Bandura in 1977, under the context of "Cognitive Behavior Modification" (12). Bandura's concept of self-efficacy, which he thought had a potential influence in initiating behavior change, is one of the main components of the social learning theory. Perceived self-efficacy is defined as a person's belief in his/her capacity to organize and execute the courses of action required to cope with specific situations (13).

The concept of self-efficacy in individuals with epilepsy has gained importance in recent years. In the management of epilepsy, patient's perceived self-efficacy is highly important for understanding the decision-making process. Self-efficacy for seizure management is de-



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defined as the belief in one's own capabilities to cope with epileptic seizures effectively. A successful seizure management is the main objective in the treatment of epilepsy (14,15). Our literature review has revealed only two studies examining and measuring the self-efficacy in children with epilepsy, which were conducted by Wagner (16) and Wagner (17). A study by Gramstad et al. (18) reported that epileptic adults with stronger self-efficacy were more effective in seizure management, mentally healthier, and more successful in social relationships.

Caring for a child with epilepsy requires a multidisciplinary team approach within the framework of family-centered care. It is advised that this team should include various professionals such as nurses, physicians, dieticians, physiotherapists, psychologists, and special education specialists. In particular, the child's perceived self-efficacy should be determined, improved, strengthened, and maintained when adopting an integrated approach, which would facilitate managing and coping with the illness. In epileptic children, high self-efficacy or increasing perceived self-efficacy ensures better seizure management, higher achievement, healthier life, and better social integration. Patients with high self-efficacy are more likely to comply with the treatment, which increases their quality of life and decreases seizure frequency (10). In addition, high self-efficacy is associated with more positive attitudes about epilepsy, less depressive symptoms, less anxiety of having a seizure, and less severe experience of stigma. Positive disease perceptions, attitudes, and self-care behaviors in these patients facilitate compliance with treatment and management of the disease (19). However, as in most chronic diseases, adaptation to epilepsy requires an active self-management and behavioral modification. On the other hand, low self-efficacy may lead to poor adherence to treatment, failure in disease management, low self-concept, anxiety, and depression; therefore, health professionals working children with epilepsy should place emphasis on these issues.

There are no studies examining the self-efficacy of children with epilepsy in the current literature from our country. In this regard, it is of vital importance to measure and determine the degree of seizure self-efficacy in epileptic children for a better disease management. By assessing and identifying the child's seizure self-efficacy level, the doctors, nurses, and other healthcare professionals can provide a more effective treatment and care, thereby making a positive contribution to the process of managing and coping with the disease.

The aim of this study was to adapt the Seizure Self-Efficacy Scale for Children (SSES-C) into the Turkish language and then assess its validity and reliability in children with epilepsy.

METHODS

Type of Study

This is a methodological study.

Study Population and Sampling Method

The target population of the study was all the children with epilepsy who attended the Pediatric Neurology Clinic of Akdeniz University Hospital, the Child Neurology Clinic of Antalya Education and Research Hospital, and the Pediatric Neurology Clinic of Bursa Dörtçelik Children's Hospital between July 2012 and March 2013. It is recommended that the minimum sample size of validity and reliability studies should be no less than 5–20 times the number of predictor variables tested in the scale (20). The study sample consisted of 166 children, aged 9–17 years, diagnosed with epilepsy within at least 6 months, and who had no mental disabilities or

Data Collection Tools

The data were collected using Child Information Form, SSES-C, and Children's Depression Inventory (CDI). The CDI was used to evaluate its correlation with the SSES-C during validity analysis. Because Caplin et al. (19) used the CDI in their study to develop the SSES-C with epilepsy, we also used the same in this study.

Child information form: This form, developed by the researchers based on the literature reviewed (19,21), consists of 28 questions about the child's socio-demographic characteristics and disease status.

Seizure self-efficacy scale for children (SSES-C): This is a 15-item, 5-point Likert scale. All items of the scale are positive. Subjects are asked to rate each statement on a 5-point scale of 1–5, with 1 being "I'm very unsure I can do that" and 5 being "I'm very sure I can do that." The value of each item varies from 1–5 points. For scoring, the points for each item are summed and the total score is divided by the number of items in the scale to obtain a mean score. A higher score reflects greater self-efficacy. This scale was developed to measure the degree of self-efficacy related to seizure management in children and adolescents aged 9–14 years who were diagnosed with epilepsy for at least 6 months, with no other chronic diseases (such as diabetes, cerebral palsy, etc.). The internal consistency reliability of the original scale was 0.93, as measured by Cronbach's coefficient, suggesting that it was a highly reliable scale (19).

Child depression inventory (CDI): This scale, which was originally developed by Kovacs (1980), consisted of 27 items. The validity and reliability study of the Turkish version was conducted by Öy (1991) (22). The CDI was designed to assess depression in children and adolescents aged 6–17 years. The scale has a good score of internal consistency (Cronbach's $\alpha=0.87$) and test-retest reliability ($r=0.82$) (23,24).

Administration of Data Collection Tools

The interviews with the participants were performed in a quiet environment at the pediatric neurology polyclinics of the abovementioned hospitals. The questionnaires were administered by the researcher in face-to-face interviews with the participants. The pre-implementation of the study was conducted with 10 children attending the Pediatric Neurology Outpatient Clinic of Antalya Education and Research Hospital; the data were not included in the current study.

Statistical Analysis

The research data were analyzed using the Statistical Package for Social Science (SPSS) (20.0), licensed to the Akdeniz University. The statistical methods used in the analysis of the research data are shown in Table 1.

Ethical Considerations

A written approval for the adaptation of the scale into the Turkish language was obtained from Joan K Austin, the original developer of the SSES-C, via e-mail. We obtained a written permission by the Akdeniz University Research Ethics Committee for Non-Invasive Clinical Studies prior to the study. For the implementation of the study, we also obtained all relevant legal permissions from the host institutions, Akdeniz University Hospital, Antalya Education and Research Hospital, and Bursa Dörtçelik Children's Hospital. The parents were provided information about the aim and content of the study, and the informed consent of all parents/guardians was obtained before starting the study. The participants were assured that all information collected about them would be kept strictly confidential.

RESULTS

The children and adolescents included in the study were between the ages of 9 and 17 years, with a mean age of 13.46 ± 2.57 years. Sixty-two percent of the participants were aged 13–17 years and 50.6% were male.

Validity and reliability analyses were performed within the study. For validity analyses, we used several methods, including language validity, content validity, predictive validity, and construct validity. The reliability analyses included internal consistency test, item analysis, and time invariance test.

A. Validity Analysis

Language validity: A translation-retranslation procedure was used to determine the language validity of SSES-C. The original English language

scale was translated into the Turkish language by four different experienced translators. These translations were reviewed and revised by the researchers and then retranslated into the English language by three independent translators with a good command of written and spoken English and Turkish. After making the necessary revisions, we received the opinions of 10 subject matter experts on the intelligibility of the items for the content validity of the scale.

Content validity: After the language validity studies, we submitted the scale to a panel of 10 subject matter experts to evaluate its content validity. The experts were asked to rate (out of 10 points) the degree to which each scale item represents the objective or domain. We also performed a correlation test, Kendall's W (Kendall's coefficient of concordance), for assessing the agreement among raters and found no statistically significant differences between the experts (Kendall's $W=0.411$, $p<0.001$, chi-square: 57.495). This result indicated that expert opinions agreed on the applicability of scale items on a statistically significant level.

Predictive validity: Table 2 shows the correlations between CDI and SSES-C and its sub-dimensions. The correlations between the overall mean score of the SSES-C and both sub-dimensions and CDI were found negative, moderate, and statistically significant.

Construct validity: Before analyzing the factor structure of the SSES-C, we conducted the Kaiser–Meyer–Olkin (KMO) and the Bartlett's test to measure sampling adequacy. According to the results of the analysis, the KMO coefficient was high (0.905), and Bartlett's test result was found statistically significant ($p<0.001$). The results of the factor analysis showed certain structural differences compared with that of the original structure of the scale. Although the original scale was one-dimensional, the adapted Turkish version consisted of two sub-dimensions. These sub-dimensions were entitled as "self-management of seizures" and "the influence of the environment in the management of seizures." The factor entitled self-management of seizures included the items 1,2,4,5,6,7,9,11,12,13, and 15, whereas the other factor entitled the influence of the environment in the management of seizures included the items 3,8,10, and 14 (Table 3).

A confirmatory factor analysis was conducted to confirm the factor structure of the original scale. The analysis results showed that a one-dimensional factor structure did not yield optimum results; therefore, a factor structure with two sub-dimensions was considered more appropriate. The disapproval of the original factor structure was likely to have resulted from cultural differences.

Table 4 shows the factor structure of the SSES-C. As seen in the table, item 2 had the lowest factor loading of 0.51, whereas item 6 had highest factor loading with 0.78. The table also shows the proportion of variance explained by a variable in percentages. The sub-dimension of self-management of seizures explained 32.79% of the domain the scale intended to be measured and 16.87% of the influence of the environment in the management of seizures. These two factors explained 49.67% of the total variance.

Table 1. The statistical methods used in the analysis of data

Data analysis	Statistical methods
Child information form	Number and percentage
Validity analysis	
Language validity	Translation from English to Turkish, retranslation from Turkish to English
Content validity	Expert opinions (Kendall's coefficient of concordance)
Predictive validity	Pearson product-moment correlation coefficient
Construct validity "factor analysis "	Exploratory factor analysis
Reliability analysis	
Internal consistency "internal consistency coefficient"	Cronbach's alpha coefficient
Item analysis	Pearson product-moment correlation coefficient
Time invariant "test-retest method"	Pearson product-moment correlation coefficient

Table 2. Correlations between the children's depression inventory (CDI) and the seizure self-efficacy scale for children (SSES-C) and its sub-dimensions

	SSES-C	Self-management of seizures	The influence of the environment in the management of seizures
Self-management of seizures	0.98*		
The influence of the environment in the management of seizures	0.74*	0.59*	
CDI	-0.58*	-0.56*	-0.46*

*The correlation was significant at 0.01

Table 3. Factor analysis of the seizure self-efficacy scale for children (SSES-C)

Original dimensions of the SSES-C	Items in the original dimensions of the SSES-C	Sub-dimensions of Turkish version of the SSES-C	Items in the sub-dimensions of Turkish version of the SSES-C
The original scale is one-dimensional	1,2,3,4,5,6,7,8,9,10, 11,12,13,14,15	Self-management of seizures	1,2,4,5,6,7,9,11,12,13,15
		The influence of the environment in the management of seizures	3,8,10,14

Table 4. Factor structure of the seizure self-efficacy scale for children (SSES-C)

Items of the SSES-C	Self-management of seizures	The influence of the environment in the management of seizures
(1) I can manage my seizure condition by making good choices about which activities I perform	0.60	
(2) I can manage my seizure condition so I do not have to miss school or other activities	0.51	
(4) I can manage my seizure condition when I am at school	0.69	
(5) I can manage my seizure condition even if I am angry or sad	0.75	
(6) I can manage my seizure condition even if there are things to worry about in my family	0.78	
(7) I can manage my seizure condition even if I am at a friend's home, on a vacation, or on a school trip	0.76	
(9) I can keep from being afraid after a seizure to manage the situation	0.43	
(11) I can manage my seizure condition by making sure I get enough rest	0.69	
(12) I can manage my seizure condition by staying away from things that can make it worse	0.49	
(13) I can manage my feelings about my seizure condition by reminding myself of my good qualities	0.59	
(15) I can manage my seizure condition because I can handle any problems it can cause	0.75	
(3) I can stay away from doing things that may make my seizure condition worse, even if I am pressurized by my friends		0.56
(8) I can talk to the doctor or nurse if I have questions about my seizure condition		0.67
(10) I can talk to my parents if I have problems with my seizure condition		0.56
(14) I can do the things my doctor told me to do to manage my seizure condition		0.76
Cronbach's Alfa	0.89	0.63
Variance explained, %	32.79	16.87
Cumulative variance	32.79	49.67

Table 5. Mean scores, standard deviation, and Cronbach's alpha values for the seizure self-efficacy scale (SSES-C) for children

SSES-C	Total items	Mean	SD	Cronbach's Alfa
The influence of the	11	3.66	0.98	0.89
The influence of the environment in the management of seizures	4	4.27	0.80	0.63
Overall scale score	15	3.82	0.86	0.89

Table 6. Correlations between the total score for the seizure self-efficacy scale for children and scores for its sub-dimensions

Sub-dimensions of the scale	Overall	Self-management of seizures
Self-management of seizures	0.98*	
The influence of the environment in the management of seizures	0.74*	0.59*

**The correlation was significant at 0.01

B. Reliability Analysis

Internal consistency: The Cronbach's alpha coefficient was calculated to determine the internal consistency of the SSES-C.

Table 5 shows the mean scores, standard deviation, and Cronbach's alpha values for the SSES-C. According to the results of internal consistency analysis shown in the table, the Cronbach's alpha reliability coefficient of the whole scale was 0.89. The alpha coefficient for the sub-dimension of self-management of seizures was 0.89 and for the sub-dimension called

the influence of the environment in the management of seizures was calculated as 0.63.

Item analysis: Table 6 shows the correlations between the total score for the SSES-C and its sub-dimension scores. The inter-correlation of the subscales and their correlation with the total score for the scale are presented. The inter-correlation of the subscales was found to be positive and significant. The correlation for self-management of seizures was $r=0.98$, and the influence of the environment in the management of seizures was $r=0.74$.

Table 7 shows the mean scores, standard deviation, skewness, correlation, and Cronbach's alpha values for each item of the SSES-C. To measure the asymmetry of the scale from normal distribution, we calculated the skewness value, which was found consistent with the normal distribution.

Time invariant (test-retest method): The SSES-C was administered again in 27 children with epilepsy within 2–4 weeks after the initial application of the scale. The correlation between the first and second administrations of the scale was significantly high ($p<0.01$) ($r=0.99$). In addition, we also examined the test-retest correlations of the SSES-C. The

Table 7. Mean scores, standard deviation, skewness, correlation, and Cronbach's alpha values for each item of the seizure self-efficacy scale for children (SSES-C)

SSES-C	Mean±SD	Skewness	Correlation	Cronbach's Alpha
1. I can manage my seizure condition by making good choices about which activities I perform	3.23±1.51	-0.29	0.52	0.89
2. I can manage my seizure condition so I do not have to miss school or other activities	3.89±1.34	-0.92	0.51	0.89
3. I can stay away from doing things that may make my seizure condition worse, even if I am pressurized by my friends	4.08±1.24	-1.22	0.55	0.88
4. I can manage my seizure condition when I am at school	3.65±1.55	-0.73	0.68	0.88
5. I can manage my seizure condition even if I am angry or sad	3.18±1.47	-0.29	0.71	0.88
6. I can manage my seizure condition even if there are things to worry about in my family	3.61±1.49	-0.63	0.71	0.88
7. I can manage my seizure condition even if I am at a friend's home, on a vacation, or on a school trip	3.84±1.47	-0.83	0.066	0.88
8. I can talk to the doctor or nurse if I have questions about my seizure condition	4.12±1.28	-1.43	0.34	0.89
9. I can keep from being afraid after a seizure to manage the situation	3.54±1.54	-0.57	0.45	0.89
10. I can talk to my parents if I have problems with my seizure condition	4.55±1.01	-2.38	0.41	0.89
11. I can manage my seizure condition by making sure I get enough rest	4.08±1.14	-1.19	0.55	0.89
12. I can manage my seizure condition by staying away from things that can make it worse	3.92±1.27	-1.06	0.60	0.88
13. I can manage my feelings about my seizure condition by reminding myself of my good qualities	3.66±1.44	-0.76	0.66	0.88
14. I can do the things my doctor told me to do to manage my seizure condition	4.30±1.09	-1.67	0.44	0.89
15. I can manage my seizure condition because I can handle any problems it can cause	3.56±1.29	-0.60	0.68	0.88

Table 8. Test-retest correlations of the sub-dimensions of the seizure self-efficacy scale for children

Test	Retest	
	Self-management of seizures	The influence of the environment in the management of seizures
Self-management of seizures	0.99*	-
The influence of the environment in the management of seizures	0.64*	0.98*

*The correlation was significant at 0.01

test-retest correlations of the sub-dimensions ranged from 0.64 to 0.99, which were statistically significant (Table 8).

DISCUSSION

The purpose of the current study was to translate and culturally adapt the SSES-C for use in Turkish society and to determine the validity and reliability of the Turkish version of SSES-C in a sample of 166 children and adolescents aged 9–17 years.

The findings of the study are discussed in two sections, where the results of the validity and reliability analyses are evaluated separately.

Validity Assessment of the SSES-C

Validity refers to the extent to which any measurement tool measures the concept it is intended to measure, without contamination from other characteristics. In other words, validity is related to whether a measurement instrument serves its intended purpose in the intended domain effectively (25). The most preferred methods for assessing the validity of a scale are content validity and construct validity (26). The agreement among raters or judges on the relevance and clarity of the scale items is considered as an indicator for the content validity of the scale (27). In our study, after the content validity of the scale was evaluated by subject mat-

ter experts, the Kendall's W correlation test was performed to confirm the content validity. The test results confirmed that there was an agreement among the raters. In addition, it was determined that the statements contained in the scale were concordant with the Turkish culture and they represented the domain they intended to measure. Under the construct validity assessment of the scale, we conducted a factor analysis. The analysis results showed certain structural differences between the original scale and the adapted version. Although the original scale was one-dimensional, the adapted Turkish version generated two sub-dimensions. The subscale entitled "self-management of seizures" contained items (statements such as "I can manage my seizure condition by making good choices about which activities I do") addressing how the child could individually control or prevent the epileptic seizures. The other subscale contained statements addressing the influence of the child's environment rather than his/her individual control in the management of seizures (such as "I can talk to the doctor or nurse if I have questions about my seizure condition"). In this context, we conducted a confirmatory factor analysis to confirm the factor structure of the original scale. The results of this analysis suggested that one-dimensional factor structure was not appropriate for our version; therefore, we concluded that it was better represented by a factor structure with two sub-dimensions.

Another method used for the assessment of the validity of the scale was the predictive validity test. The predictive validity of a scale is determined by calculating the correlation between the predictor scores from the scale and the criterion that is known to measure what it intends to measure (28). In a sense, this is the criterion-related validity, which is a measure of agreement between the measurement results and real-life reflections of what is intended to be measured (27). Based on the analysis results, the correlations between the CDI and the overall mean score for the scale and its sub-dimensions were found negative, moderate, and statistically significant.

Reliability Assessment of the SSES-C

Reliability is one of the psychometric properties that a scale should possess. It is an indicator of the consistency, i.e., the extent to which a mea-

suring procedure yields consistent results on repeated administrations of that instrument (28).

Internal consistency is commonly used by researchers as an estimate of the reliability of a specific measurement tool (29). Proper reliability assessment of a measurement instrument containing similar items and presumed to quantify the degree of homogeneity of items provides information about the internal consistency of that measurement device (30). Cronbach's alpha coefficient is widely used to assess the internal consistency of Likert-type scales (31). It is considered that the higher the Cronbach's alpha coefficient, the greater the internal consistency of the items in the scale, and the more it consists of items questioning the elements of the same feature (32). If the calculated Cronbach's alpha coefficient is $0.00 \leq \alpha \leq 0.40$, the scale is considered unreliable; if $0.40 \leq \alpha \leq 0.60$, the scale has low reliability; if $0.60 \leq \alpha \leq 0.80$, the scale is fairly reliable; and if $0.80 \leq \alpha \leq 1.00$, the scale is highly reliable (33). The Cronbach's alpha reliability coefficient of the SSES-C was 0.89 in our study, which showed a high degree of reliability. The reliability coefficient for the sub-dimension "self-management of seizures" was 0.89 and for the sub-dimension "the influence of the environment in the management of seizures" was 0.63. The Cronbach's alpha coefficient for the one-dimensional original scale was 0.93. In their study, Wagner et al. (34) calculated the Cronbach's alpha value of the scale as 0.85.

Item analysis refers to a process that examines the relationship between the scores of individual scale items to the overall scale score. It is used for discriminating the item that determines the extent to which success on an item corresponds to success on the whole test. To do this, the correlation coefficient is calculated (31,35). A test item with low correlation coefficients may be considered unreliable and omitted from the scale (26). In our study, we examined inter-correlation results between the sub-dimensions and their correlation with the overall scale score. The correlations between the whole scale and its two sub-dimensions were 0.98 and 0.74, respectively, whereas the inter-correlation between the first and second sub-dimension was 0.59. A higher correlation coefficient for an item suggests a stronger correspondence with the theoretical structure that is intended to be measured, which confirms that such item provides an effective and adequate measure for the behavior in question. In item discrimination, it is advised that the acceptable discrimination coefficient should be >0.25 , and items with discrimination coefficients lower than this value should be omitted from the measurement device regardless of other analysis results (31,35). In our study, item-total correlations were in the range of 0.34–0.71; therefore, none of the items had to be removed. These results suggest that the items contained in the sub-dimensions in the Turkish version of the scale are consistent and reliable in reflecting the construct they intend to measure in children with epilepsy.

Time invariant (test-retest method): Test-retest reliability is a measure of the ability of a survey instrument to yield consistent results at different administrations of the same instrument and its capability of showing invariance over time (30). Test-retest technique refers to the administration of an instrument twice in the same subject group, under conditions that are as similar as possible. The time interval for the test-retest study should be both long enough to exclude significant recollection effects and short enough to exclude significant changes in the characteristics to be measured. In the current study, the scale was administered again after 2–4 weeks in 27 children randomly selected from the sample, and the correlation between the test and the retest scores was significantly high ($p < 0.01$) ($r = 0.99$). In addition, the sub-dimensions of the scale showed good test-retest reliability, with a statistically significant correlation ranging between 0.64 and 0.99.

In conclusion, the results of the current study have shown that Turkish version of the SSES-C has good psychometric properties, consistent with those of the original English scale. Therefore, it is a valid and reliable instrument for use in Turkish people. The scale can effectively measure the degree of seizure self-efficacy in children with epilepsy in Turkish society.

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