



Turkish Version of Functional Evaluation of Physical Performance for the Geriatric Population: A Reliability and Validity Study

Geriatrik Popülasyon için Fiziksel Performansın Fonksiyonel Değerlendirme Ölçeği Türkçe Versiyonu: Güvenirlik ve Geçerlilik Çalışması

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Abstract

Objective: To translate the "Functional Evaluation of Physical Performance for the Geriatric Population (Alusti test)" into Turkish to examine validity and reliability.

Materials and Methods: During the translation period, the cross-cultural adaptation design proposed using the guideline was used. The patients evaluated the Turkish version of the Alusti test and it was applied again a week later. To determine the reliability and internal consistency, Cronbach's alpha coefficient was calculated. Test-retest reliability was determined using intraclass correlation coefficient (ICC) and Pearson's correlation analysis. Construct validity was examined with factor analysis. Convergent validity was examined by comparing Alusti test with Short Physical Performance Battery (SPPB) and Barthel index (BI), and criterion validity was examined by comparing Alusti test with Tinetti balance and gait assessment, timed up and go test (TUGT), 6-meter walking speed test, and Rivermead mobility index (RMI) scores.

Results: Cronbach's alpha coefficient was 0.701. The ICC for the test-retest reliability was 0.948. The Alusti test was explained by four factors. SPPB ($r=0.586$, $p=0.000$), BI ($r=0.321$, $p=0.005$) and Tinetti gait test ($r=0.512$, $p=0.000$) were moderately positively correlated with the Alusti test total score. The Tinetti balance test ($r=0.662$, $p=0.000$), Tinetti balance and gait assessment total score ($r=0.655$, $p=0.000$) and RMI ($r=0.715$, $p=0.000$) were highly positive correlated.

Conclusion: The Turkish version of the Alusti test is a valid and reliable scale for the geriatric population.

Keywords: Physical performance, functional assessment, older people, validity, reliability

Öz

Amaç: "Geriatrik Popülasyon için Fiziksel Performansın Fonksiyonel Değerlendirme Ölçeği (Alusti test)"nin Türkçeye çevrilmesi, geçerlik ve güvenilirliğinin incelenmesidir.

Gereç ve Yöntem: Çeviri sürecinde prensipler tarafından önerilen kültürler arası uyum modeli kullanıldı. Hastalar Alusti testinin Türkçe versiyonu ile değerlendirildi ve bir hafta sonra tekrar uygulandı. Güvenirliği ve iç tutarlılığı belirlemek için Cronbach alfa katsayısı hesaplandı. Test-tekrar test güvenirligi, sınıf içi korelasyon katsayısı (ICC) ve Pearson korelasyon analizi kullanılarak belirlendi. Yapı geçerliliği faktör analizi ile incelendi. Benzer ölçek geçerliliği Alusti testi ile Kısa Fiziksel Performans Bataryası (KFPB) ve Barthel indeksi (Bi) karşılaştırılarak, kriter geçerliliği ise Alusti testi ile Tinetti Denge ve Yürüme Değerlendirmesi, zamanlı kalk ve yürü testi (ZKYT), 6 metre yürüme hızı testi ve Rivermead mobilite indeksi (RMI) puanları karşılaştırılarak incelendi.

Bulgular: Cronbach alfa katsayısı 0,701'dir. Test-tekrar test güvenirligi için ICC 0,948'dir. Alusti test dört faktörle açıklanmıştır. KFPB ($r=0,586$, $p=0,000$), Bi ($r=0,321$, $p=0,005$) ve Tinetti yürüme testi ($r=0,512$, $p=0,000$) Alusti test toplam puanı ile orta derecede pozitif korelasyona sahipti. Tinetti denge testi ($r=0,662$, $p=0,000$), Tinetti denge ve yürüme değerlendirme toplam puanı ($r=0,655$, $p=0,000$) ve RMI ($r=0,715$, $p=0,000$) yüksek oranda pozitif korelasyona sahipti.

Sonuç: Alusti testin Türkçe versiyonu geriatrik popülasyon için geçerli ve güvenilir bir ölçektir.

Anahtar kelimeler: Fiziksel performans, fonksiyonel değerlendirme, yaşlı birey, geçerlik, güvenirlilik

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Introduction

Advancing age is accompanied by loss of muscle strength and limitations in balance and mobility. The latter of these negatively impact physical performance (1) which then has a negative impact on the activities of daily life. This is significant health-related physical fitness parameters among older individuals (2). Measuring physical fitness is a common practice in preventative and rehabilitative exercise programs aimed at improving health (3). Applicable and reliable tests are needed to detect older people at risk of losing their daily functions and hence their independence. The term “applicable” refers to the fact that tests are easy for older people with various medical conditions and different functional levels that are considered acute. Moreover, consistent test results are necessary to effectively assess patient requirements and treatment effects in research as well as clinical contexts; therefore, acceptable reliability is a prerequisite for a valid test (4).

Many tests are used to assess functional performance, including the walking speed test, timed up and go (TUG) test, short physical performance battery (SPPB), and Tinetti test. The effectiveness and applicability of these tests, however, are constrained by the physical and cognitive state of the patient. Therefore, feasible, competent, tolerable, and reliable tests that produce consistent results and allow for a thorough evaluation of functional status and treatment effects are needed (5).

The Alusti test, designed by Josu Alustiza Navarro and based on existing tests, can be used to evaluate the physical performances of geriatric adults with various levels of functional and cognitive capacity in a short time without exhausting the patient. This test is available in two versions: short and full. The short version is applicable to 100% of a large elder population, including those with functional and cognitive impairment, whereas the full version has an applicability of approximately 85-90% (5).

The purpose of this study was to analyze the validity and reliability of the functional assessment scale for physical performance using the Alusti test for a geriatric population in Turkey as well as to provide researchers with a measurement tool to use in the Turkish literature.

Materials and Methods

Participants

Between August 2020 and April 2021, 75 volunteers participated in the study. The İstanbul Okan University ethics committee approved the present study (decision no: 17, date: 29.04.2020), which was conducted in accordance with the principles of the Declaration of Helsinki. All the patients had provided written informed consent before their enrollment in the present study. The inclusion criteria were as follows: age >65 years, willing to participate, and able to read and write in Turkish. There were no exclusion criteria.

Procedure

This study was conducted in two stages: the first stage involved translating the Alusti test into Turkish, and the second stage involved statistical analysis of the Turkish Alusti test’s reliability and validity.

Stage 1: Translating the Alusti test into Turkish

The guidelines established by Beaton et al. (6) were followed during the translation phase.

Step 1: Contacting the developer of the original version of the Alusti test

Josu Alustiza Navarro, who created the Alusti test in 2018, was contacted via e-mail before the research started. The objective of this step was to see if any other researchers had already obtained permission for the Turkish validity and reliability study of the Alusti test as well as to get written authorization from the creator.

Step 2: Translation from Spanish to Turkish

A five-person translation team including two Turkish-speaking and two bilingual (Turkish and Spanish) physiotherapists and a bilingual (Turkish and Spanish) Spanish teacher was assembled. The four physiotherapists independently and individually translated the original Alusti test from Spanish to Turkish. Then, the four translations were compared, and a draft Turkish version was created.

Step 3: Back-translation from Turkish to Spanish

To ensure the accuracy of the translation, the draft version was back-translated from Turkish to Spanish by the Spanish teacher who is fluent in both languages.

Step 4: Synthesis

The original and the translated Spanish versions were compared in terms of content and discrepancies were documented. All versions were reviewed by the translation team and the Turkish version was discussed. The disparities were discussed by the reviewers, and synthesis was established.

Step 5: Achieving consensus

The translation team evaluated all versions, including the original Spanish, Turkish, and translated Spanish versions, and the synthesis of translation disparities. The test was finally amended into Turkish and the final version of the scale was developed.

Step 6: Pilot test

A pilot study involving eight patients was undertaken to examine the final version of the scale.

Stage 2: Statistical analysis of the reliability and validity of the Turkish Alusti test

Reliability: The Cronbach’s alpha coefficient of the complete scale were determined to assess the reliability and internal consistency of the Alusti test. To check for consistency, the test-retest method was used, wherein the test was administered twice to the same participants after a 7-day gap. The total score and sub-parameters of the first test were compared to those of the retest. Intraclass correlation coefficient (ICC) was used to measure test–retest reliability.

Validity: The validity of the Alusti test was assessed using construct and criterion validity. Factor analysis and other scale validity approaches were used to assess the construct validity. The Barthel index (BI), which indicates the level of daily living activities and is associated with the functional level, and the SPPB, which indicates the degree of physical fitness, were utilized for similar scale validity. Scales and functional level tests used in the literature to measure ambulation and functional level were utilized to demonstrate the criterion validity of the Alusti test.

Outcome Measures

The patient evaluation form was used to collect the sociodemographic data and health condition of all participants.

The Turkish Version of the Functional Evaluation Scale of Physical Performance in the Geriatric Population (the Alusti Test)

The Alusti test is a 10-item test that is used to assess physical performance in the geriatric population and can have a total score of 100. This test is performed in the supine position. Upper and lower extremity range of motion (item 1), upper and lower extremity muscle strength (item 2), and the ability to transition from a supine to a sitting position (item 3) are all assessed in this posture. Then, sitting balance (item 4), standing from sitting (item 5), standing (item 6), walking (item 7), walking distance (item 8), standing in tandem with eyes closed (item 9), and standing on one leg with eyes closed (item 10) are assessed in the standing position (5).

The score indicates the level of activity of the patient. Movements were rated as follows based on the overall scores: 0-30, completely dependent; 31-40, severely dependent; 41-50, moderately dependent; 51-60, mildly dependent; 61-75, good degree of movement; 76-90, very good movement; and 91-100, excellent degree of movement (5).

Cognitive Assessment

Mini mental test: Orientation, registration, attention and calculation, recall, and language are the five key areas of cognitive function assessed using a mini mental test and are graded on a scale of 0-30 (7). The maximum score is 30, with a score of ≥ 24 indicating normal cognition. Cognitive impairment is indicated by a score of 0-23 (8).

Evaluation of Activities of Daily Living

BI: BI was created to measure care needs by evaluating personal care, bathing, feeding, grooming, going up and down the stairs, dressing, walking, bladder and bowel control, and other activities of daily living (9). The scale has a total of 10 items, with scores ranging from 5 to 15 points (between 0-15 points with 5-point increments according to the question) (10). In studies that employed the BI, the cutoff was set at 60 points, and scores >60 explained the ability to operate independently (11).

Evaluation of Physical Performance

SPPB: SPPB assesses the physical capabilities of the lower limbs of older adults (12). Walking speed, ability to get up from a chair,

and ability to keep balance in increasingly difficult positions are assessed using SPPB. According to the duration of the exercise, all three physical performance measures (walking speed, balance, and getting up from a chair) are scored between 0 and 4. Summing the results of the three tests yields a total score ranging from 0 (poor) to 12 (excellent) (3). Good lower extremity function and a low risk of falling are indicated by high scores (13).

Tinetti balance and gait test (TBGT): TBGT was created for utilization in the older people population (14) and is used to assess the balance and walking abilities in two areas. The first nine questions are regarding balance followed by seven questions regarding walking abilities. A total score of ≤ 18 indicates a high risk of falling, 19-24 suggests a moderate risk of falling, and ≥ 24 shows a low risk of falling (15).

TUG test: In this test, participants are instructed to stand up from sitting in a regular chair without using their arms, walk a distance of 3 meters on the ground at a moderate speed, turn, walk backward, and sit. A stopwatch is used to time how long it takes to complete the instructions (16). There is a high chance of falling if the duration is 14 seconds or longer (17). Evidence suggests that older adults with longer durations are more prone to fall than those with shorter durations (18).

Rivermead mobility index (RMI): RMI is a metric that assesses a patient's mobility (19). It includes 14 questions as well as an observation section. This index assesses the activities of an individual such as turning in bed, sitting balance, standing up, standing without support, changing locations, walking indoors and outdoors, going up and down stairs, picking something up off the floor, bathing, and running. If possible, a point is given for each activity. A score of ≤ 14 indicates the presence of mobility issues, whereas a score of 15 indicates that they do not have any issues (20).

Six-meter gait speed test: In this test, subjects are instructed to walk for 6 meters at their usual comfortable pace and the time taken is recorded. Gait speed is calculated by dividing the distance traveled (6 meters) by the total time in seconds. The gait speed is expressed in m/s (21).

Statistical Analysis

The SPSS software version 22 was used to conduct statistical analyses. Visual (histograms and probability graphs) and analytical (Kolmogorov-Smirnov or Shapiro-Wilk tests) methods were used to assess the conformity of the variables to the normal distribution. For normally distributed values, data was presented as mean and standard deviation, whereas for non-normally distributed variables, the median and interquartile ranges were given. For ordinal and nominal variables, numbers and percentages were provided. Mann-Whitney U and Kruskal-Wallis tests were used to compare groups. The relationship between categorical variables was investigated using the chi-square test (Pearson chi-square, Yates corrected chi-square, or Fisher's exact chi-square). The test-retest method and internal consistency analysis were used to assess the reliability of the Turkish version

of the Alusti test. The Cronbach's alpha coefficient was used to measure internal consistency. Cronbach's alpha coefficient and an ICC value of >0.70 were deemed adequate. The retest reliability was assessed using Spearman's correlation analysis and ICC. Factor analysis and related scale and criterion validity were used to assess construct validity. A strong relationship had an r value of >0.60 correlation coefficient, a moderate relationship had $r=0.3-0.6$, and a weak relationship had $r<0.3$. Results with a p-value of <0.05 were considered statistically significant (22). For normally distributed and non-normally distributed variables, Pearson and Spearman's correlation analyses were used, respectively. The total type-1 error threshold was determined to be 5% for statistical significance.

Sample Size Calculation

Spearman's correlation test with 80% power and 0.05 type-1 error was used to determine the sample size and was used for criterion and similar scale validity. The results showed that 75 people should be included in the study to obtain a significant correlation ($r=0.31$). It was concluded that reapplication of the test on 47 participants would be adequate to yield a moderate correlation ($r=0.4$) value in the Pearson correlation test for the Turkish version of the Alusti test's test-retest reliability (23).

Results

Table 1 summarizes the sociodemographic, physical features and clinical data of the cases of the 75 patients included in this study.

Reliability of the Turkish Version of the Alusti Test

Cronbach's alpha coefficient for the entire scale was determined to be 0.701 (Table 2). Furthermore, the Cronbach's alpha coefficient for each question in the Alusti test was shown to be lower than the overall Cronbach's alpha coefficient. In the reliability analysis, the relationship between the Alusti test items and the overall score was evaluated. Accordingly, the correlation coefficients of the items with the overall score were 0.348 and 0.695.

The relationship between the item sub-dimension total score of the Alusti test is shown in Table 3.

Pearson correlation analysis was used to establish the test-retest reliability of the Turkish version of the Alusti test by comparing the overall results of the first test with the second test one week later. The results revealed a strong correlation ($r>0.80$) between the total scores as well as a high level of reliability (Table 4).

The ICC for the test-retest reliability of the Turkish version of the Alusti test was 0.948 (Table 4).

Construct Validity of the Turkish Version of the Alusti Test

The KMO (0.655) value and Bartlett test ($p=0.00$) obtained in the construct validity analysis indicated that the Turkish version of the Alusti test was suitable for factor analysis. The total variance explained was examined. Accordingly, there were four

factors with Eigenvalues above 1. In addition, when the Scree plot graph is examined, it is seen that the number of factors is four (Figure 1). In this study, the Varimax rotation method was applied. The results were interpreted to demonstrate that four factors explained the 10 items contained in the Alusti test scale score (Table 5).

Discussion

The Turkish validity and reliability of the Functional Assessment of Physical Performance scale for the Geriatric Population were explored in the present study. Our findings demonstrated that the Turkish version of the Alusti test is a valid and reliable measure for assessing physical performance in the geriatric population.

Table 1. Sociodemographic and physical characteristics of the patients

Variable	n	Min-max	X ± SD
Age	75	65-82	70.53±4.59
Length (cm)	75	140-185	163.49±7.32
Weight (kg)	75	56-111	77.91±11.26
BMI (kg/cm ²)	75	19.38-45.61	29.24±4.53
Mini mental test	75	13-29	21.80±3.80
Alusti test	75	57-80	72.65±5.64
Variable	n		%
Gender	Female	46	61.3
	Male	29	38.7
Classification according to mini mental test score	Normal (25 and over)	17	22.7
	Early dementia (19-24)	40	53.3
	Moderate dementia (10-19)	18	24.0
Classification by Barthel index total score	Moderately dependent	7	9.3
	Mildly dependent	10	10.3
	Fully independent	58	77.3
Classification by Tinetti balance and gait test total score	18 and under (high risk of falling)	3	4.0
	19-24 (fall risk moderate)	12	16.0
	24 and over (low risk of falling)	60	80.0
Classification based on timed up and go test results	14 and over (high risk of falling)	21	28.0
	Below 14 (low risk of falling)	54	72.0
Classification by Rivermead mobility index score	15 and over	36	48.0
	14 and under	39	52.0
Classification by Alusti test total score	51-60	2	2.7
	61-75	44	58.7
	76-90	29	38.7
Min-max: Minimum-maximum, SD: Standard deviation, BMI: Body mass index			

Table 2. Reliability and internal consistency of the Turkish version of the Alusti test

Alusti test	Item-total relationship	If item deleted Cronbach's alpha coefficient	Cronbach's alpha coefficient of the whole scale
1. Passive joint movement in extremities	0.376	0.701	0.701
2. Active muscle strength in the extremities	0.641	0.622	
3. Transition from back to sitting	0.462	0.685	
4. Body control while sitting	0.348	0.700	
5. Transition from sitting to standing	0.344	0.699	
6. Standing position	0.377	0.698	
7. Walk	0.695	0.610	
8. Walking distance	0.542	0.678	
9. Tandem standing on two legs with eyes closed	0.523	0.687	
10. Standing on one legs with eyes closed	0.522	0.693	

Table 3. Item-total score relationship of Alusti test subscales

Alusti test substances		Alusti test total score
1. Passive joint movement in extremities	r	0.303*
	p	0.030
2. Active muscle strength in the extremities	r	0.793**
	p	0.000
3. Transition from back to sitting	r	0.536**
	p	0.000
4. Body control while sitting	r	0.375*
	p	0.021
5. Transition from sitting to standing	r	0.320**
	p	0.005
6. Standing position	r	0.381**
	p	0.001
7. Walk	r	0.780**
	p	0.000
8. Walking distance	r	0.524**
	p	0.000
9. Tandem standing on two legs with eyes closed	r	0.553**
	p	0.000
10. Standing on one legs with eyes closed	r	0.554**
	p	0.000

Spearman's correlation: *p<0.05; **p<0.01

Table 4. Test-retest reliability correlation and ICC coefficient of Turkish version of Alusti test

Test	Re-test	R	95% CI	p-value
Alusti test total score 1	Alusti test total score 2	0.952**	0.925-0.969	0.000
	Cronbach's ICC		95% CI	
Test-retest	0.973	0.948	0.909-0.971	

Spearman's correlation: p<0.05; p<0.01; CI: Confidence interval, ICC: Intraclass correlation coefficient

Physical performance evaluation in the geriatric population gives information about everyday activities and helps to develop a rehabilitation program. It has been stated that evaluating

older adults only primarily on physical performance exams or questionnaires based on self-reports would not produce valid results (24).

The Alusti test is a new physical and functional assessment test that meets the criteria of simplicity, application, reproducibility, validity, and acceptability, and may be used by the entire geriatric population (5). Furthermore, the Alusti test is a cognitive test that may be used in any cognitive state. The Alusti test results are not affected by the person's cognitive state because scoring solely depends on the practitioner. In this study, it was discovered that 68% of the patients had dementia, with early (40%) and moderate (18%) dementia.

The Alusti test has not yet been subjected to a validity and reliability assessment in another language. The Cronbach's alpha coefficient of the scale in our study was 0.701 in the evaluation of the Alusti test's reliability, and the scale was determined to have appropriate reliability because the Cronbach's alpha coefficient was larger than 0.70. Furthermore, the If Item-Deleted Cronbach's alpha coefficient for each item in the Alusti test was lower than the Cronbach's alpha coefficient for the entire scale, indicating that each question contributed to the

Questions of Alusti test	Factor 1	Factor 2	Factor 3	Factor 4
10. Standing on one legs with eyes closed	0.953			
9. Tandem standing on two legs with eyes closed	0.951			0.102
2. Active muscle strength in the extremities	0.569	0.107	0.373	
4. Body control while sitting		0.849	-0.237	
5. Transition from sitting to rating		0.816	0.213	0.162
3. Transition from back to sitting	0.301	0.554	0.28	-0.121
6. Standing position		0.432	0.358	0.419
7. Walk	0.186		0.845	
8. Walking distance			0.840	
1. Passive joint movement in extremities				0.903

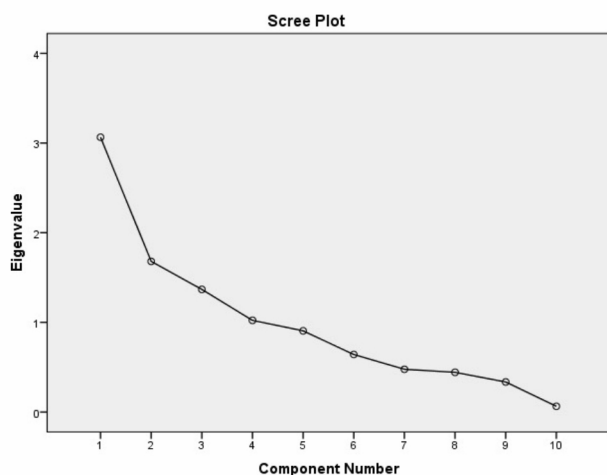


Figure 1. Scree plot chart of the Alusti test

scale's internal consistency and should not be deleted. In the reliability analysis, the item-total correlation of the Alusti test was examined. The correlation coefficients of the items with the total score ranged from 0.348 to 0.695. The total score of the items, which ranged from moderate to good, was found to have a statistically significant correlation. This contributes to the scale's internal consistency. The Alusti test item-total score had a correlation coefficient ranging from 0.303 to 0.793, indicating a moderate to high correlation near to perfect.

Test-retest reliability is measured using the ICC value. If this value is >0.80, it is considered proof of good reliability. The Turkish version of the Alusti test was shown to have a high level of test-retest reliability and a great correlation between total scores. It was determined that the ICC was 0.948. As a result, it can be said that the Alusti test is highly reliable.

Factor analysis was employed to assess the validity of the Alusti test in our study since a significant sample size was attained for construct validity. The loading of all questions in the Alusti test was determined to be >0.30, and the analysis should be continued with all of the items, according to the results of the study. The ninth item of the Alusti test had the highest effect on the total factor structure with a rate of 92.1%, and the 2nd item

of the Alusti test was the question that contributed the least to the total factor with a rate of 47.7%. The 10 questions contained in the score of the Alusti test should be explained using four factors, according to the Scree Plot graph. The Alusti test was shown to have construct validity based on these findings.

To demonstrate similar scale validity in the Turkish version of the Alusti test, BI, which is connected with functional level and indicates the level of daily living activity, and SPPB, which measures physical fitness level, were utilized. The Alusti test total score and BI had a moderately positive and substantial correlation. The overall score of the SPPB and the total score of the Alusti test were found to have a positive and significant correlation. The validity and reliability of the Alusti test were assessed in the first study on the original version. Five scales were compared to the Alusti test (BI, walking speed test, TUG, SPPB, and TBGT). In its full version, the Alusti test demonstrated a good correlation with BI and TBGT. The test also met the requirements for assessing physical performance in the entire geriatric population. Both the short and long versions of the test have great reliability (ICC =0.99) (5).

The scales used in the literature to measure ambulation and functional level, as well as functional level tests, were utilized to demonstrate the criterion validity of the Turkish version of the Alusti test. The Alusti test total score, Tinetti balance subdimension score, Tinetti walking subdimension score, TBGT total score, and RMI score had a highly positive and significant correlation, although there was no significant relationship between TUG and walking speed test results. The Turkish version of the Alusti test was found to have criterion validity based on these findings.

The short form of the Alusti test is straightforward to administer and use, and its application is possible in all groups of the psychogeriatric population, according to a previous study (25).

The Alusti test has been used in several studies, and the consensus is that it is an easy instrument to employ with older adults. The test can be performed with just a stretcher, chair, stopwatch, and a qualified practitioner. The test may be administered to

all geriatric adults within 3–6 minutes, including the cognitive population (5,25).

Study Limitations

Our research has certain limitations as well. Although we employ multiple methods to demonstrate validity and reliability, it will be important to compare the Alusti test to an objective measurement such as balance systems or isokinetic measures that indicate functional capacity. Although our sample size is large enough to establish statistically significant comparisons, a larger sample may be investigated. However, ours is the first of its sort, as there is no scale for evaluating functional physical performance in the geriatric population that has been translated into Turkish. Our research serves as a model for future version studies.

Conclusion

As a result, the Turkish version of the Alusti test, which is used to assess functional physical performance in the geriatric population, is a valid and reliable functional scale that is simple to use. The Turkish version of the Alusti test can be utilized in research involving the functional evaluation of physical performance in geriatric adults. It will be a useful measurement tool in clinics for patient evaluation. In addition, detailed information on the strategies that can be adopted to assist these patients will be provided.

Ethics

Ethics Committee Approval: The İstanbul Okan University Ethics Committee approved the present study (decision no: 17, date: 29.04.2020), which was conducted in accordance with the principles of the Declaration of Helsinki.

Informed Consent: All the patients had provided written informed consent before their enrollment in the present study.

Peer-review: Internally peer-reviewed.

Authorship Contributions

Concept: J.A.N., Design: J.A.N., Data Collection or Processing: B.K., E.A., Analysis or Interpretation: B.K., E.A., Literature Search: B.K., E.A., J.A.N., Writing: B.K., E.A., J.A.N.

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