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Research Paper

Development of satısfactıon wıth lıfe for the elderly: A valıdıty and relıabılıty study

ABSTRACT

Life satisfaction is the cognitive component of subjective well-being, and it is the evaluation of life conditions according to one's own criteria. The aim of this study is to develop the Life Satisfaction Scale for the Elderly, which is a valid and reliable measurement tool that can measure life satisfaction specific to elderly individuals. The research is of methodological type. The population of the study consisted of elderly individuals aged 65 and above. After the item pool created for the scale was finalized, validity and reliability studies (exploratory factor analysis) of the scale were carried out with a total of 321 elderly individuals; 50.5% female (162) and 49.5% male (159). After expert opinions, content validity was evaluated, the construct validity of the scale was determined using explanatory and confirmatory factor analyzes, and the Cronbach alpha internal consistency coefficient was examined to determine its reliability. According to the results of the explanatory factor analysis, the items were 'self-acceptance' (9 items), 'Motivation' (2 items), 'Peace' (3 items). According to the results of confirmatory factor analysis, it was determined that the fit indexes of the scale were at an acceptable level ($\chi2$=126.665, sd=72, $\chi2$/sd= 1.759, RMSEA=0.049, CFI=0.847, GFI=0.918). In addition, all path coefficients of all items were found to be statistically significant (p<0.050). In the reliability study of the Elderly Life Satisfaction Scale, the cronbach alpha internal consistency coefficient of 14 questions in the scale was calculated as 0.874. The item analysis of the scale showed that the item-total correlations varied between 0.39 and 0.73, and according to the t-test results, the differences between the averages of the 27% lower-upper group items were significant in all items (p<0.05). The findings showed that the Elderly Life Satisfaction Scale is a valid and reliable measurement tool and can be used in scientific studies. According to the results of confirmatory factor analysis, it was determined that the fit indexes of the scale were at an acceptable level and are a valid and reliable measurement tool.

Key words: Elderly, elderly health, life satisfaction, scale development.

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INTRODUCTION

Aging is a natural and unidirectional process which has been increasing rapidly all over the world in recent years and may pose a risk for elderly individuals (Söyleyici and Salici, 2020; Belice et al., 2021).

Elderly population is estimated as 9.1% across the globe, according to 2018 data (TÜİK, 2019). According to the data of World Health Organization (WHO), the number of individuals aged 60 and above in the world, which was 6000 million in 2000, is predicted to increase to 1.2 million in 2025 and exceed 2 million in 2050 (WHO, 2015).

The rate of elderly individuals in the general population is increasing in Turkey. While the elderly population was 5.891.694 (7.7%) in 2013, it was 7.186.204 (8.8%) in 2018 with an increase of 16%. According to the Turkish

Statistical Institute TUIK 2022 data, 8.245.124 elderly individuals live in Turkey. As of December 2021, the rate of population aged 65 and above was 9.7% in the general population (TÜİK, 2021).

With the increase in elderly population, special needs for elderly individuals increase and it becomes inevitable to encounter a large number of problems (Kurtoğlu and Koç, 2019). Studies conducted have found that elderly individuals experience problems such as sleep problems, vision problems, musculoskeletal problems, hypertension, diabetes, heart diseases, loneliness, financial difficulties and mental depression (Kachappillil, 2021; Cohen et al., 2021; Mondal and Moinuddin, 2021; Ischak et al., 2021). These problems affect satisfaction with life negatively in elderly individuals.

It is important to contribute to creating a positive old age perception in the society and to include elderly individuals in social life by protecting and developing their health (Çelik et al., 2017). A healthy aging is associated with life satisfaction of elderly individuals (Şahin and Yıldırım, 2019). Satisfaction with life in elderly individuals is defined as the result of what individuals want and what they have by using means such as personality characteristics, physical conditions and coping methods (Kankaya and Karadokovan, 2017).

Satisfaction with life reflects general feelings about life and is considered as a criterion of emotional happiness (Aşan and Erenler, 2008). It is stated that individuals who are satisfied with their lives are more compatible and productive in society; satisfaction with life is basically related to welfare levels, health services and educational opportunities in that society; the main purpose of the service given to individuals in the fields of education, health and environment should be to make them happy by increasing satisfaction with life (Diener, 2000; Diener and Seligman, 2004).

Health and nursing care primarily deals with and cares for elderly individuals with reduced self-care capacity and low life satisfaction. For this reason, knowing the life satisfaction of the elderly is important for planning the nursing services to increase the life satisfaction of the elderly.

It has been found that different measurement instruments have been used in studies conducted on adults for satisfaction with life in international literature. Validity and reliability studies of "Satisfaction with Life" (SWLS) developed by Diener et al. (1985) have been conducted in Turkey. "General Satisfaction with Life Scale" which was developed by Diener et al. (1985) and adapted into Turkey by Köker (1991), Yetim (1993) and Dağlı and Baysal (2016), which can be administered to a large age group and only gives an idea about general satisfaction with life, is used in most of the studies conducted in Turkey (Yiğit, 2012; Ardahan, 2012; Karademir et al., 2013; Akgündüz, 2013). Adult Satisfaction with Life was developed by Kaba et al. (2016).

No measurement instrument was found in literature which is aimed directly for the elderly and can measure life satisfaction of elderly individuals. Since the 5-item "General Satisfaction with Life Scale" (Diener et al., 1985), which is frequently used in literature in Turkey, measures only general satisfaction with life, there has been a need to develop a more detailed scale about the life satisfaction of individuals with different ages and characteristics.

Therefore, the aim of this study is to develop a measurement tool specific to elderly individuals that reveals the life satisfaction of the elderly living in clinics and nursing homes, in order to better meet the needs of the elderly. The results of the present study will be a guide for nurses working in the clinic and in the field to increase the life satisfaction of the elderly and to cope with it. In addition, this study will shed light on studies in which life satisfaction will be used.

METHODS

The study has a methodological design. Population of the study consists of individuals aged 65 and above. The item pool, which was created by the researchers as a result of literature review, was submitted to the opinions of 5 experts with 35 items and the scale which was revised to 28 items in accordance with suggestions was approved by the ethics committee with a decision dated May 27, 2022, and numbered 2022–543. While determining the sample size for scale studies, since it is recommended for the sample size to be 5 to 10 times of the number of items in the scale, the sample size was determined as 280 (O'Rourke and Hatcher, 2013). The study data were collected by reaching 321 individuals aged 65 and above without neuropsychiatric disease, free of cognitive problems that impede communication, who were literate and who volunteered to participate in the study.

Study group

When determining sample size for scale studies, it is recommended that the sample size be 5 to 10 times the number of items in the scale, so the sample size was set at 280 (O'Rourke and Hatcher, 2013). Study data were collected by reaching 321 individuals aged 65 and above without neuropsychiatric disease, free cognitive problems that impede communication, who were literate and who volunteered to participate in the study (298 face-to-face, 23 online).

Mean age of the participants was 71.07±6.04 (65-105); 50.5% were female and 49.5% were male. 45.2% of the participants were primary education graduates, 73.2% were married, 44.9% were retired, and 46.4% stated that their income was equal to their expense. In the study, the mean number of children was 3.81 ± 2.09 (1-14) for the

Table 1: Descriptive statistics of scale scores.

	Mean	S. deviation	Median	Minimum	Maximum
Factor 1	3.76	0.72	3.78	1.11	5.00
Factor 2	4.33	0.82	4.50	1.00	5.00
Factor 3	3.21	0.95	3.33	1.00	5.00

participants who had children (%96.1). 15.3% of the participants stated that they were living alone, 69.8% stated that they had a chronic disease, 72% stated that they did not have a physical activity, 27.7% stated that they did not consider themselves healthy, 42.7% stated that their health status was moderate, 17.8% stated that they felt lonely and 24.3% stated that they did not have satisfaction with life.

Measurement instruments

Life Satisfaction in the Elderly Scale (LSES): It was developed in 2022 by Altay and Çalmaz. It has 14 items and 3 subscales questioning the participation of elderly individuals in the process related with satisfaction with life. The subdimensions of the Life Satisfaction Scale for Older People are represented by factors 1, 2 and 3: Self-acceptance (Factor 1), Motivation (Factor 2), Peace (Factor 3). The responses to the items in this 5-likert scale are "Strongly disagree", "disagree", "neither agree nor disagree", "agree" and "strongly agree". Each item is scored between 1 and 5. Total minimum possible score from the scale is 14, while the total maximum possible score is 70. Sub-dimension scores, on the other hand, are summed up by the scores of items in each sub-dimension and divided by the number of items in the sub-dimension, and the average scoring of the sub-dimension is calculated. The items in "Self-acceptance" subscale are 1, 2, 3, 4, 10, 11, 12, 13, 14; the items in "motivation" subscale are 6 and 8; and the items in "peace" subscale are 5, 7 and 9. Minimum-maximum possible scores for self-acceptance subscale is 9-45, minimum-maximum possible scores for motivation subscale is 2-10 and minimum-maximum possible scores for motivation subscale is 3-15. Cronbach Alpha reliability of LSES was found to 0.874 by Altay and Çalmaz.

Procedure

The literature on the subject was examined and the scale's item pool was created to develop LSES. A 14-item trial form was prepared by taking the opinions of academics who were experts in their field. The prepared form was administered to 321 individuals aged 65 and above and reliability and validity studies of LSES were conducted.

Data analysis

The data were analysed with IBM SPSS V23 and IBM SPSS AMOS V24. Normality distribution was examined with multiple normality assumption. Exploratory factor analysis and Confirmatory factor analysis were used for construct validity of the scale. In exploratory factor analysis, principal components analysis method was used for factor extraction and varimax method was used for rotation. In confirmatory factor analysis, first level CFA was used and ADF method was preferred as calculation method since the data were not normally distributed. Cronbach's alpha coefficient was used to analyse internal consistency and reliability. Level of significance was taken as $p<0.050$.

RESULTS

Results on LSES's content validity

In the study, content analysis was examined to determine whether or not the scale items represent the scope of the quality intended to be measured (Dağ, 2005). As a result, 'Expert Evaluation Form' which was created with 35 items in order to evaluate the content (scope) validity in terms of being represented, being easily understood by the target audience (65 years of age and older) and being expressed clearly and precisely was sent through email to 5 experts who had studies in the field of public health. Since the number of experts was 5, content validity criterion (CVC) critical value was taken as 1.000. Content validity rate (CVR) values should be 1. Items which do not have a CVR value of 1 should be excluded from the scale. Therefore, the items determined in scope validity evaluation were excluded from the scale and the scale was finalized with 28 items. Since scale content validity index (CVI) ≥CVC after these items were excluded, content validity was found to be statistically significant (Table 1).

Factor 1 mean score of the participants was found as 3.76, while factor 2 mean score was found as 4.33 and factor 3 mean score was found as 3.21 (Table 1).

Factor 1 includes items 5, 6, 8, 9, 16, 21, 25, 27, and 28; factor 2 includes items 11 and 13; factor 3 includes items 10, 12 and 14.

Construct validity

Construct validity is conducted to find out whether the measurement instrument measures the qualities that are aimed to be measured and which dimensions of the targeted qualities are measured by the scores obtained

Table 2: Life Satisfaction in the elderly scale exploratory factor analysis results.

	Factor 1	Factor 2	Factor 3	Extraction
LSES27	0.734			0.661
LSES 8	0.712			0.629
LSES28	0.681			0.617
LSES16	0.681			0.605
LSES9	0.673			0.627
LSES5	0.668			0.538
LSES6	0.645			0.591
LSES21	0.576			0.38
LSES25	0.539			0.402
LSES11		0.834		0.732
LSES13		0.822		0.723
LSES12			0.774	0.628
LSES14			0.759	0.617
LSES10			0.598	0.512
Eigenvalue	4.169	2.077	2.015	
VAO	29.779	14.832	14.395	
KVAO	29.779	44.611	59.006	

EVR: Explained variance ratio, CEVR: Cumulative explained variance ratio, K-M-O=0.887; Barlett's test=1834.818 p<0.001.

from the scale. Factor analysis methods are usually used to determine construct validity. In this context, exploratory and confirmatory factor analysis was conducted to examine the construct validity of the scale (Table 2).

From the Explanatory Factor Analysis Results of the Scale of Life Satisfaction in the Elderly shown in Table 2, it can be seen that the scale gathered in 3 factors with an Eigen value greater than 1, and all items had acceptable loading values in the factor they entered (the lowest item load value was 0.54, the highest item load value was 0.83). There is no item with a high value in more than one factor. It was determined that the factor loads of the items were between 0.54 and 0.83. As shown in Table 2, the factor load of the first dimension consists of 9 items ranging from 0.54 to 0.73. The factor load of the second dimension consists of 2 items ranging from 0.82 to 0.83. The third dimension factor load consists of 3 items ranging from 0.59 to 0.77.

In exploratory factor analysis, principal components analysis was used for factor extraction, while varimax method was used for rotation. A 4-factor structure was obtained as a result of the first analysis and when the extraction values were examined, extraction value of all of the items were obtained as >0.30. Upon examining the factor loads of the items, it was determined that an item should be removed from the scale if the difference between its values under two separate factors was less than 0.1. This is because it is unacceptable for an item to be under two different factors in factor analysis. LSES22 was excluded since it was under two different factors.

The analysis was repeated after LSES22 was excluded from the scale. Similarly, a 4-factor structure was obtained and extraction values of all items were found to be >0.30. When factor loads of the items were examined, LSES23 was excluded since it was under two different factors.

The analysis was repeated after LSES23 was excluded from the scale. Similarly, a 4-factor structure was obtained and extraction values of all items were found to be >0.30. Since the item total correlation coefficients of the fourth factor, which consisted of LSES20 and LSES4 were <0.30 and Cronbach's alpha coefficient was found as 0.354, these two items were excluded from the scale. The results obtained after excluding these items are shown in Table 3. After these items were excluded, KMO value was found to be 0.887 and Bartlett test Chi-square value was found to be 1834.818 (p<0.001). These values show that the data set is suitable for factor analysis. It was found that all of the extraction values of the scale which consisted of the remaining 14 items were >0.3 and it was found that all of the diagonal values in the anti-image correlation matrix were >0.5. A 3-factor structure was shown as a result of the analysis. Factor 1 explains 29.78% of the variance, Factor 2 explains 14.83% of the total variance and Factor 3 explains 14.40% of the total variance. 59.01% of the total variance is explained with 3 factors.

As a result of the first level confirmatory factor analysis performed with 14 items and 3 factors and following 2 different modifications, model fit values were found as (CMIN (χ2)=126.665, DF (sd) =72, CMIN/DF (χ2/sd)=1.759, RMSEA=0.049, CFI=0.847, GFI=0.918. CMIN/DF, RMSEA, GFI fit values other than CFI were found to be within acceptable limits. In addition, path coefficients of all items were found to be statistically significant (p<0.050).

Table 3: Confirmatory factor analysis results of the scale.

Items		Factors	β1	β2	S. error	Test st.	p
LSES28	<---	F1	0.809	1.000			
LSES27	<---	F1	0.805	1.031	0.033	31.416	**<0.001**
LSES25	<---	F1	0.595	0.656	0.060	11.003	**<0.001**
LSES21	<---	F1	0.619	0.900	0.072	12.501	**<0.001**
LSES16	<---	F1	0.749	0.771	0.047	16.542	**<0.001**
LSES9	<---	F1	0.832	1.073	0.058	18.355	**<0.001**
LSES8	<---	F1	0.901	1.397	0.067	20.867	**<0.001**
LSES6	<---	F1	0.697	0.815	0.056	14.574	**<0.001**
LSES5	<---	F1	0.560	0.999	0.085	11.812	**<0.001**
LSES13	<---	F2	0.883	1.000			
LSES11	<---	F2	0.685	0.885	0.155	5.712	**<0.001**
LSES14	<---	F3	0.676	1.000			
LSES12	<---	F3	0.524	0.934	0.104	8.988	**<0.001**
LSES10	<---	F3	0.775	1.346	0.127	10.600	**<0.001**

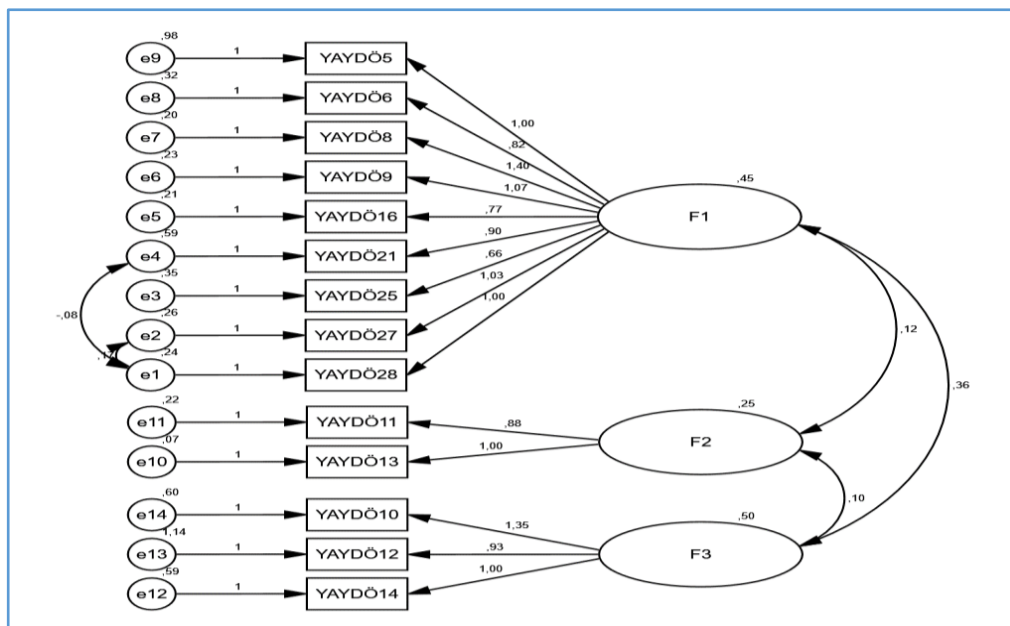β1: Standardized beta coefficient, β2: Non-standardized beta coefficient.

Figure 1: Non-standardized path coefficients of the scale.

To verify the factor structure of the 3-factor and 14-item scale in Table 3, the CFA results of the model are given in Figures 1 and 2.

The measurement model in Figure 2 shows which items the measurement model confirmed with 14 items consists of, and on the other hand, the standardized regression coefficients (factor loads) of the paths on the one-way arrows; No factor load below 0.50 were observed.

Results on the reliability of LSES

Reliability determines whether all aspects of the scale are capable of being measured. It must be proven that each scale's subsections assess the same characteristic in order for a scale to be considered internally consistent and reliable.

In terms of the reliability of the scale, item total correlations were examined with internal consistency coefficient Cronbach α. Generally, Cronbach's alpha of the scale was found to be 0.874. It is shown in Table 4 that item-total correlations regarding the discrimination of items vary between 0.39 and 0.73. It can be said that all item test correlations are significant. All these results can be interpreted as evidence that the scale has satisfactory level of reliability.

Cronbach's alpha value of Factor 1 was found to be 0.871, indicating a higher degree of reliability for the factor.
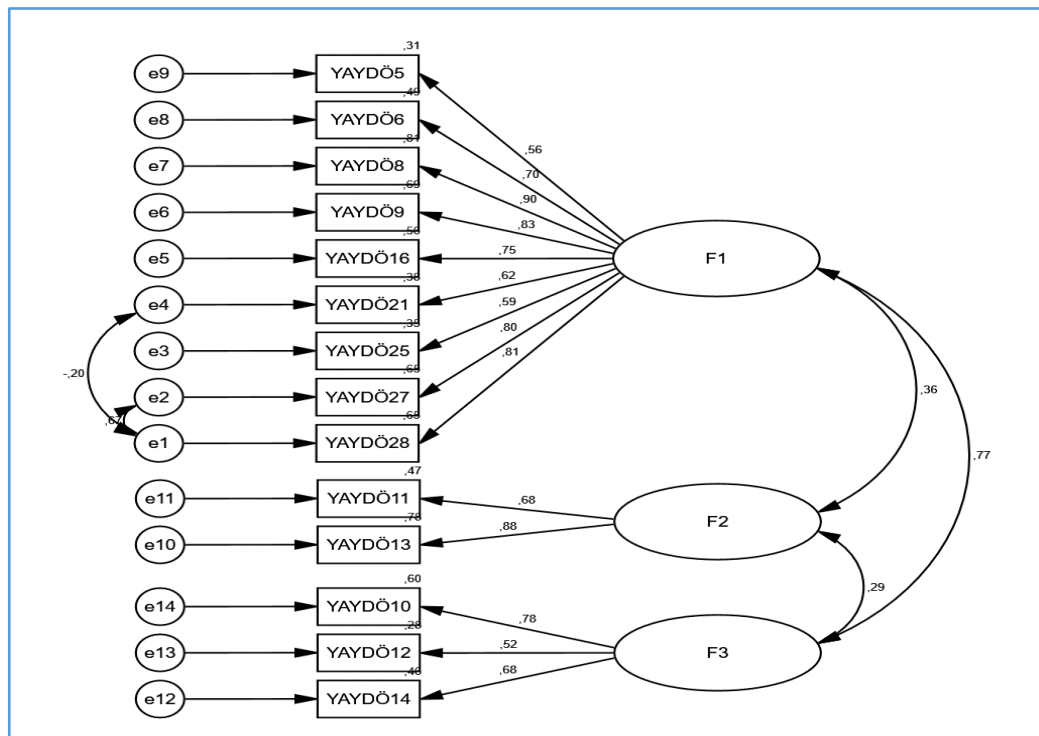
Figure 2: Standardized path coefficients of the scale.

Table 4: Reliability results of the scale.

Factors	Items	Mean	S. deviation	Item total correlation	Cronbach's alpha when item deleted	Cronbach's alpha
Factor 1	LSES5	2.7134	1.21659	0.393	0.881	0.871
	LSES6	4.0623	0.94663	0.625	0.856	
	LSES8	3.6698	1.11943	0.681	0.851	
	LSES9	3.7944	1.01617	0.7	0.849	
	LSES16	4.1651	0.88078	0.681	0.852	
	LSES21	3.5639	1.11655	0.512	0.867	
	LSES25	3.9502	0.88247	0.539	0.864	
	LSES27	3.9252	0.99405	0.736	0.846	
	LSES28	3.9626	0.96104	0.695	0.85	
Factor 2	LSES11	4.3209	0.91507	0.599	.	0.749
	LSES13	4.3364	0.91458	0.599	.	
Factor 3	LSES10	3.0436	1.22652	0.443	0.537	0.634
	LSES12	3.0498	1.30288	0.423	0.567	
	LSES14	3.5234	1.20166	0.466	0.506	

Overall cronbach's alpha=0.874, Tukey's non-additivity: F=7,166 (p=0.007).

Cronbach's alpha value of Factor 2 was found to be 0.749, indicating a high degree of reliability for the factor. Cronbach's alpha value of Factor 3 was found as 0.634, indicating a high degree of reliability for the factor. In general, Cronbach's alpha value of the scale was found to be 0.874, indicating a higher degree of reliability for the scale. In addition, item total correlation coefficients of the items were found to be >0.30.

Table 5: Life Satisfaction in the Elderly Scale (LSES).

	Life Satisfaction in the Elderly Scale (LSES)	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	I think that I will come across interesting and beautiful things as life progresses					
2	I think that all my life/experiences so far have added value to me					
3	I think that there are more peaceful moments in my life					
4	I think I am mentally balanced					
5	I can put aside all the negativities I have experienced from the past to the present					
6	I think that being successful/useful in life is a social responsibility					
7	I think that there are no regrets that I have brought from the past to the present					
8	I think that maintaining relationships with friends, family, neighbours and similar relationships keep me strong					
9	I think that the things I was upset about before don't bother me anymore					
10	I love myself					
11	I think my self-confidence increases with age					
12	I think that the people around me value me					
13	I love life as an elderly individual					
14	I can adapt to old age					

Upon examining the scale to determine its additiveness, Tukey's additivity test revealed that it is. (p=0.007).

Developing the LSES: The content of scale items

As a result of all evaluations, Factor 1 in its new form includes items 1, 2, 3, 4, 10, 11, 12, 13, and 14. Factor 2 includes items 2, 6 and 8. Factor 3 includes items 5, 7 and 9. Opinions were taken from an Associate Professor of Public Health Nursing and a Specialist Clinical Nursing when designating the scale's factors.

Factors of Life Satisfaction in the Elderly Scale;

Self-acceptance (Factor 1): The first factor, "self-acceptance", which is a result of the individual's self-sensitivity, is also defined as a basic feature of self-actualization, ideal functioning and maturity, as well as mental health. Therefore, accepting the self and past life is also a part of this process. It corresponds to the importance individuals attach on having positive attitudes towards the self, self-confidence, self-respect and self-recognition (Göçen 2019; Toksoy and Oktan, 2019; Topses, 2013).

Motivation (Factor 2): 'Motivation', which is the second factor of the scale, is defined as a phenomenon to meet the psychological and biological needs of individuals. In addition to influencing individuals' behaviours, it can be explained as a driving force that leads individuals to these

behaviours. Motivation is all of the cyclical processes that constantly activate and direct the behaviours of individuals in line with certain behaviours. In addition to directing individuals' behaviours, it also gives energy, hope, desire and belief to individuals (Semerci and Akbaba, 2018; Ateş and Buluç, 2018; Kulualp and Erol, 2018).

Peace (Factor 3): In addition to being defined as a permanent purpose of being happy, 'peace', which is the third factor of the scale, is also expressed as 'peace of mind, comfort, contentment, rest' according to Turkish Language Association. The concept of peace, which means calmness, inner comfort and serenity, can also be defined as the state of being in balance. It is also a sense of life well-lived, rich in meaning and purpose, very different, multi-directional and permanent (TDK, 2022; Öksüz and Karalar, 2019; Walker, 2016; Özdemir and Bakiler, 2021).

In Table 5, a ready-to-use simplified life satisfaction scale is given. The table consists of 14 questions and 3 sub-dimensions. The sub-dimensions of the Life Satisfaction Scale for the Elderly, specified as Factor 1, 2, 3. Self-Acceptance (Factor 1), Motivation (Factor 2), Peace of Mind (Factor 3). Factor 1 = 1,2,3,4,10,11,12,13 and 14th item, Factor 2=6 and 8th item, Factor 3= 5, 7 and 9th item (See Method for scale evaluation).

DISCUSSION AND CONCLUSION

Life Satisfaction in the Elderly Scale was developed in the present study. Reviewing related research in the literature

served as the initial step in the scale development study. As a result of the review, there was no special scale to measure the life satisfaction of the elderly in our country. This scale is considered to be very important in determining the life satisfaction of elderly patients, providing nursing care and personal care needs at home, in society, or in the hospital process at desired levels, and developing care accordingly. The results obtained in terms of the validity and reliability study of LSES showed that LSES can be used to measure satisfaction with life among elderly individuals.

LSES has a total of 14 items. The scale was prepared as a Likert type scale with five options (1= Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly agree). Possible scores from LSES vary between 14 and 70. High scores from the scale mean that individuals have positive perceptions about their lives.

LSES has a three-factor structure: Self-acceptance (Factor 1)includes items 5, 6, 8, 9, 16, 21, 25, 27, 28; Motivation (Factor 2) includes items 11 and 13; and Peace (Factor 3)includes items 10, 12 and 14.

Item total correlations were examined with internal consistency coefficient Cronbach α. It can be observed that item total correlations vary between 0.63 and 0.87. Overall Cronbach's alpha of the scale was found to be 0.874. It can be said that all item test correlations are significant. These results can be interpreted as evidence that the scale has satisfactory level of reliability.

Item-total correlations >0.30 and significance of t-test results used for 27% lower-upper group item comparisons show that the items in the scale have high reliability and they measure same behaviours (Büyüköztürk, 2004). Item total correlation coefficients of the items in this scale were found to be >0.30. According to the results obtained, it can be said that LSES meets the item analysis criteria required for a scale.

The statistical tests administered to the scale were exploratory and confirmatory factor analysis for construct validity, similar scale validity for criterion validity, Cronbach's alpha (internal consistency) coefficient for reliability and item total correlations for item analyses. According to the results obtained from the analyses, it can be concluded that the scale has sufficient statistics and meets the validity-reliability conditions.

Reliability of LSES was examined with internal consistency (Cronbach's alpha reliability) coefficient and test-retest method. A Cronbach's alpha coefficient of $0.00 \le \alpha < 0.40$ indicates that the scale is not reliable, a Cronbach's alpha coefficient of $0.40 \le \alpha < 0.60$ indicates that the scale has low reliability, a Cronbach's alpha coefficient of $0.60 \le \alpha < 0.80$ indicates that the scale is reliable and a Cronbach's alpha coefficient of $0.80 \le \alpha < 0.1.00$ indicates that the scale is highly reliable (Özdamar, 1999). Cronbach's alpha reliability coefficient of the 14 items in the scale was found to be 0.89. When the Cronbach's alpha reliability coefficients of the factors were examined, the coefficient was found to be 0.849 for general life factor, which consisted of 6 questions: 0.849 for family and friend relationships factor, which consisted of 5 questions; 0.774 for self-satisfaction factor, which consisted of 4 questions; 0.737 for satisfaction of the close environment, which consisted of 3 questions; and 0.867 for professional satisfaction, which consisted of 3 questions (Table 1). These results show that Cronbach's alpha coefficients are sufficient and no item should be excluded from the factors.

In addition to their positive effects on elderly individuals, healthy lifestyle behaviours, which are important for an active life and healthy aging, are important components that also affect satisfaction with life. Satisfaction with life in elderly individuals are defined as the result of the relationship between the wishes of individuals and what they have as a result of using means such as personality characteristics, physical conditions and coping methods. Satisfaction witch life is a cognitive component of subjective well-being and valuing the self with self-acceptance, motivation and peace. In addition, as goals are harmoniously attained, satisfaction with life can foster greater friendships, warmth and peer support within our cultural structure's family and relative systems as well as making it easier to adjust to changing roles. At this point, the present study aims to develop a valid and reliable scale to measure satisfaction with life in elderly individuals and to contribute to literature about self-acceptance, motivation and peace.

In light of this, the scale that was produced for the current study through item analysis, exploratory analysis, and confirmatory analysis included 3 factors and 14 items. According to exploratory factor analysis, while the factors of the scale which explain 59.10% of the total variance have acceptable reliability, the whole scale was found to have high reliability (0.887). A positive and significant correlation was found between the factors of the scale; the construct obtained with exploratory factor analysis was confirmed with confirmatory factor analysis. Based on the analyses, it can be said that the scale is a measurement instrument that is highly reliable and valid. Moreover, evaluating validity and reliability of the scale with a larger sample and/or in societies with different cultural characteristics can contribute to developing the scale.

Demographic characteristics of the individuals were not determined in this study. Future studies are required to examine the demographic characteristics such as place of residence, educational level, marital status and chronic diseases and make comparisons between the life-satisfaction of individuals.

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