

A Methodological Study on the Ikigai of 60+ Tazelenme University Students

60+ Tazelenme Üniversitesi Öğrencilerinin İkigai'si Üzerine Metodolojik Bir Çalışma

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ABSTRACT Objective: Ikigai, is a key factor for a happy and meaningful life and is associated with psychological well-being and resilience. This study investigated the Ikigai of Turkish older adult students using the Ikigai-9 scale. **Material and Methods:** The Turkish version of Ikigai-9 was created through translation and reverse translation from the original Japanese. Data were collected from students 60+ Tazelenme University (Antalya & Eskişehir) via Google Forms to investigate the relationship between "Ikigai" and demographic characteristics, as well as mental health. All statistical analyses were conducted using SPSS 26 and AMOS 24 programs. **Results:** The reliability of the scale was confirmed with a satisfactory Cronbach's alpha coefficient (0.888). Differences were observed in Ikigai scores/sub-dimensions based on demographic characteristics and awareness of the term *Ikigai*. A moderate positive relationship was found between participants' Ikigai scores and mental well-being scores ($r=0.653$; $p<0.05$). The Ikigai and its sub-dimensions based on factors are as follows: 1) Optimistic feelings about current life are associated with those who have completed middle school, are economically advantaged, or are familiar with the term *Ikigai*. 2) Future-oriented and positively inclined individuals are often women or belong to the young age group (60-64 years). 3) Those who feel a meaningful presence in social relationships are typically from the younger age group. **Conclusion:** There is a need for studies to elucidate the effects of Ikigai, which positively influences individuals' physiological and psychological health, for older adults, especially men and those aged 65 and over.

Keywords: Ikigai; older adult students; well-being; resilience; methodological study

ÖZET Amaç: "Ikigai", Japon felsefesine dayanan, mutlu ve anlamlı bir yaşam için temel bir faktördür. "Ikigai" aynı zamanda psikolojik iyi oluş ve psikolojik dayanıklılık ile ilişkilidir. Bu çalışmada, Ikigai-9 ölçeği kullanılarak Türk yaşlı öğrencilerin "Ikigai'si" araştırılmıştır. **Gereç ve Yöntemler:** Ikigai-9'un Türkçe versiyonu orijinal Japoncadan çeviriler çeviri yöntemiyle oluşturulmuştur. "Ikigai" ile demografik özellikleri ve zihinsel sağlık arasındaki ilişkiyi araştırmak için 60+ Tazelenme Üniversitesi (Akdeniz ve Eskişehir) öğrencilerinden Google Formlar aracılığıyla veriler toplanmıştır. Tüm istatistiksel analizler SPSS 26 ve AMOS 24 programları kullanılarak yapılmıştır. **Bulgular:** Ölçeğin güvenirliği, Cronbach- α katsayısının (0,888) yeterli düzeyde oluşuyla doğrulanmıştır. Demografik özellikler ve "Ikigai" sözcüğünü bilme durumu ile "Ikigai" puanları/"Ikigai" alt boyutları aralarında farklılıklar bulunmuştur. Katılımcıların, "Ikigai" puanlarıyla zihinsel iyi oluş puanları arasında orta düzeyde pozitif yönde bir ilişki bulunmuştur ($r=0,653$; $p<0,05$). "Ikigai" ve alt boyutları şu şekildedir; 1) Ortaokul mezunu, ekonomik açıdan avantajlı olan veya "Ikigai" kelimesini bilenlerin şimdiki hayata dair iyimser ve olumlu duygulara sahip olduğu görülmüştür. 2) Geleceğe yönelik aktif, olumlu tutuma sahip olan, katılımcılar genellikle kadınlar veya genç grupta yer alanlardır (60-64 yaş). 3) Toplumla ilişkilerde varlığını anlamlı hissedilen katılımcılar ise genellikle genç gruptakilerdir. **Sonuç:** İkigai'nin, bireylerin fizyolojik ve psikolojik sağlığı üzerinde olumlu etkileri olduğu bilindiğinden, özellikle yaşlı yetişkinler, özellikle de erkekler ve 65 yaş ve üzerindeki bireyler için etkilerini aydınlatacak çalışmalara ihtiyaç vardır.

Anahtar Kelimeler: İkigai; yaşlı öğrenciler; iyi olma; dayanıklılık; metodolojik çalışma

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The Japanese philosophical concept of *Ikigai* offers valuable insights concerning purpose and meaning in life and is deemed to be integral to the life experiences of individuals engaged in activities that bring joy and a sense of fulfillment in their work and overall lifestyle activities. Indeed, the search for well-being is becoming an important lifestyle dimension for increasing numbers of people worldwide. Human well-being and flourishing are believed to result from a mix of positive connections and engagement with others, along with purposeful life meaning and positive emotion.¹ In essence, *Ikigai* embraces aspects of human functioning and well-being, such as the need to accept change, and the challenge of continuous growth and development, anticipation of a positive future, motivation, self-actualization, and the search for a balanced life purpose and direction.^{2,3}

The relationship between *Ikigai* and physical and psychological health has been demonstrated across a range of studies involving multiple age groups. Research findings reveal that higher levels of *Ikigai* are associated with higher levels of subjective well-being and lower levels of functional disability.^{4,5} In terms of the older population, studies indicate that individuals who have found their *Ikigai* exhibit positive physical health measures, including a lower risk of developing functional disability. It has been suggested that incorporating the philosophical attributes of *Ikigai* into an individual's lifestyle can contribute to positive health outcomes and reduce the risks of all-cause mortality.^{6,7} Psychologically, a lifestyle incorporating *Ikigai* can lead to increased subjective well-being accompanied by a reduction in psychological stress and depressive symptoms.⁸

Ikigai is a powerful concept due to its recognized potential to facilitate meaningful and engaging social relations. A study of older Japanese women demonstrated the importance of *Ikigai* in terms of producing a positive effect on the motivation and eagerness to initiate and sustain new social connections and interactions.⁹ It was mentioned that a new generation of older adults actively engaged in seeking meaningful opportunities for communal engagement and social connectedness as an effective means of supporting and maintaining their autonomy, self-determination and personal development.¹⁰ *Ikigai* as a research

focus, particularly in investigating the lifestyle of older adults, offers much potential for gaining improved insights into resilience and thriving compared to merely existing or surviving in later life.^{11,12}

This methodological study was inspired by the research the *Ikigai-9* scale, which focused on the relationship between *Ikigai* and physical activity.^{13,14} The *Ikigai-9* scale consists of 9 items and covers 3 sub-dimensions. These sub-dimensions reflect a person's feelings about their present life, attitudes about the future, and affirmation of existence.¹⁵ Consequently, this study is focused on the translation and validation of the original Japanese *Ikigai-9* scale into Turkish, with participants comprising older adults enrolled in learning programs at the 60+ Tazelenme University across two university campuses in Türkiye. The analysis primarily focused on the sub-dimensions of the *Ikigai-9* scale to determine which older adults possess *Ikigai* and which aspects of *Ikigai* are affirmed.

MATERIAL AND METHODS

PURPOSE AND PROCEDURE

This study aimed to adapt the *Ikigai-9* scale from Japanese to Turkish language and to conduct a validity and reliability study of the scale in the older population. Additionally, the study sought to examine the *Ikigai* levels of older adults' students enrolled at the 60+ Tazelenme University, which consists of older adults over the age of 60. The relationships between their *Ikigai* levels and other variables, such as, age, gender, educational background and economic status, were examined. Participants were also asked if they were familiar with the term *Ikigai* to assess their awareness of the concept. Moreover, the study aimed to evaluate the relationship between *Ikigai* and psychological health using the Warwick-Edinburgh Mental Well-Being Scale Short Form. Another objective was to explore the relationships between independent variables and the sub-dimensions such as *optimistic and positive feelings about present life, active and positive attitudes towards the future and perceiving one's own existence as meaningful in relation to society*. These sub-dimensions were determined by factor analysis in the original study.¹⁵

MEASURE

The Ikigai-9 scale is a 5-point Likert-type scale (1-strongly disagree and 5-strongly agree).² The Warwick-Edinburgh Mental Well-Being Scale Short Form consists of 7 items that measure the participants' psychological well-being, mental functions, and emotional well-being over the past two weeks.¹⁶ Permission to use these scales, was obtained from the authors. Japanese Ikigai-9 scale into Turkish, then back-translating it into Japanese using the translation-reverse translation method, and finally having it reviewed by two experts in linguistics (Appendix 1).

PARTICIPANTS

The study group consisted of 241 students (170 women, 71 men) from Tazelenme University, selected through convenience sampling. Descriptive statistics were used to gather information on participants' gender, age, education, economic status, and knowledge of the term *Ikigai*. The participants were from Akdeniz and Anadolu campuses of the 60+ Tazelenme University, a social responsibility project that offers lifelong learning and active aging opportunities for individuals aged 60 and over, connecting them with educators to learn about various subjects.¹⁷

DATA COLLECTION AND STATISTICAL ANALYSIS

The study data were collected through an online questionnaire using Google Forms (Google, USA), with voluntary participation. Participants received brief information about the study and gave consent before completing the 22-question survey, which included six demographic questions, nine items from the Ikigai-9 scale, and seven items from the Short Warwick-Edinburgh Mental Well-Being Scale.

Construct validity was assessed using exploratory and confirmatory factor analysis (CFA), and reliability was tested with Cronbach's alpha. Exploratory factor analysis (EFA) was repeated because, during the English validation of the Ikigai-9 scale, one item appeared to belong to a different sub-dimension, a potential issue in the Turkish translation as well.¹² To analyze the relationships between demographic variables and mental well-being, normality was checked using the Kolmogorov-Smirnov and Shapiro-Wilk tests. Since the data were not normally distributed ($p < 0.05$), the Mann-Whitney U test and Kruskal-Wallis H test were applied for two and more than two categories, respectively. Spearman Rank Correlation

APPENDIX 1: Ikigai-9 Ölçeği.					
Aşağıdaki her ifade için ① hiç katılmıyorum ② hemen hemen katılmıyorum ③ ne katılmıyorum ne katılmıyorum ④ hemen hemen katılıyorum ⑤ tamamen katılıyorum seçeneklerinden birini seçerek cevaplayınız.	Hiç katılmıyorum	Hemen hemen katılmıyorum	Ne katılmıyorum ne katılmıyorum	Hemen hemen katılıyorum	Tamamen katılıyorum
Sık sık mutlu olduğumu hissediyorum.					
Yeni bir şey öğrenmek veya yeni bir şeye başlamak isterim.					
Başkalarına veya topluma katkıda bulunduğumu düşünüyorum.					
Zihnimde kendim ve başkaları için yer vardır.					
Birçok şeye ilgi duyarım.					
Varlığımın bir şey veya biri için gerekli olduğunu düşünüyorum.					
Hayatımdan çok memnunum.					
Potansiyelimi geliştirmek isterim.					
Birilerini etkilediğimi düşünüyorum.					

was used to measure the strength and direction of relationships between variables.^{18,19} All statistical analyses were performed using SPSS 26 and AMOS 24 (by IBM in ABD).

ETHICAL STANDARDS AND STUDY LIMITATIONS

This study was conducted in accordance with the guidelines of the Ethics Boards of Akdeniz University, permission was obtained from the Faculty of Medicine, Ethics Committee for Clinical Research on November 30, 2021 (no: 70904504/782). The research followed the principles of the Declaration of Helsinki. Data collection was done with the consent of the participants before they filled out the Google Form. The data is limited to the older adults enrolled in learning programs of the 60+ Tazelenme University at two campuses, in Antalya and Eskişehir.

RESULTS

The demographic information of participants in this study is as follows; more than half of the participants are female, have a university or higher education,

have a medium economic status, and more than 70% of participants is 65 years old or over and most of participants don't know the term *Ikigai* (Figure 1).

CONSTRUCT VALIDITY

EFA and CFA were applied to examine the dimensional structure of the Ikigai-9 scale, which was created in Turkish.

EFA

Kaiser-Meyer-Oklin (KMO) and Barlett Sphericity tests were performed to determine whether it is appropriate to perform factor analysis on the data set obtained. The KMO value was found to be 0.899 and according to (2), KMO values above 0.5 are acceptable. Barlett Sphericity test value was found to be 1073.018 (sd=36, $p<0.001$). According to these results, it can be said that it is appropriate to perform factor analysis on the data.

In EFA, principal components method and direct oblimin rotation technique were applied and as a result of EFA, a 3-dimension construct explaining 74.227% of the total variance was obtained. The orig-

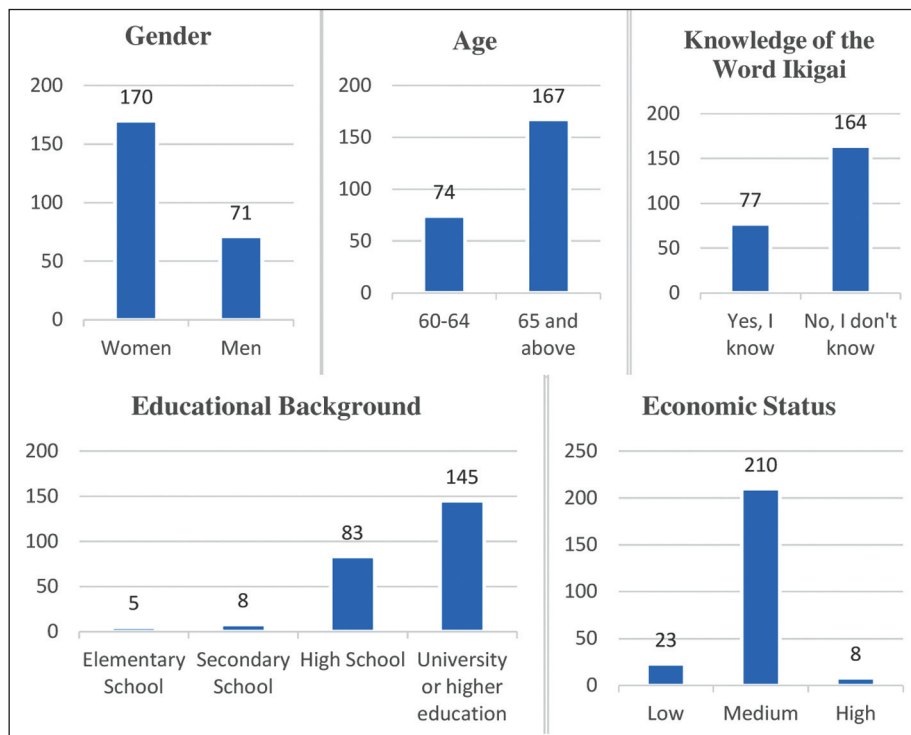


FIGURE 1: Demographic information of the participants.

inal scale also has a 3-dimension construct. However, in this scale, I. sub-dimension consisted of items 1, 4, 7, II. sub-dimension consisted of items 2, 5, 8 and III. sub-dimension consisted of items 3, 6, 9, while in this study, item 4 was included in II. sub-dimension. Since the factor loading of this item was 0.922, it was found appropriate not to remove it from the study and to evaluate it under II. sub-dimension.

When the EFA results are analyzed, I. sub-dimension (*Optimistic and positive feelings about the present life*) consists of 2 items and explains 12.7% of the total variance. The factor loading of item 1 is 0.974 and of item 7 is 0.778. II. sub-dimension (*Active and positive attitudes about the future*) consists of 4 items and explains 53.640% of the total variance, with factor loadings ranging between 0.771 and 0.922. III. sub-dimension (*Perceiving one's own existence as meaningful in relation to the society*) consists of 3 items and explains 7.887% of the total variance, with factor loadings ranging between 0.557 and 0.972.

CFA

EFA revealed a 3-dimension construct, and CFA was applied to this structure. The fit index values of the developed model were analyzed [$\chi^2/sd=1.453$, root mean square error of approximation (RMSEA)=0.043, root mean square residual (RMR)=0.032, normed fit index (NFI)=0.968, comparative fit index (CFI)=0.990, incremental fit index (IFI)=0.990, relative fit index (RFI)=0.952, adjustment goodness of fit index (AGFI)=0.941, goodness of fit index (GFI)=0.969]. According to the literature, χ^2/sd ratio between 0-2, RMSEA value between 0.00-0.05, NFI, CFI, IFI, RFI and GFI values between 0.95-1.00 and AGFI value between 0.90-1.00 are accepted as indicators of excellent fit between the model and the data set.¹ (Kline, 2011, Schermelleh-Engel & Moosbrugger, 2003, Baumgartner & Homburg, 1996, Bentler, 1980, Bentler & Bonett, 1980, Marsh et al. 2006. as cited in İlhan & Çetin, 2014).¹⁸ When the results of the factor analysis of the model are interpreted, the factor loadings of the Ikigai-9 scale ranged between 0.66 and 0.97 for I. sub-dimension, between 0.78 and 0.83 for II. sub-dimension, and between 0.66 and 0.73 for III. sub-dimension (Figure 2).

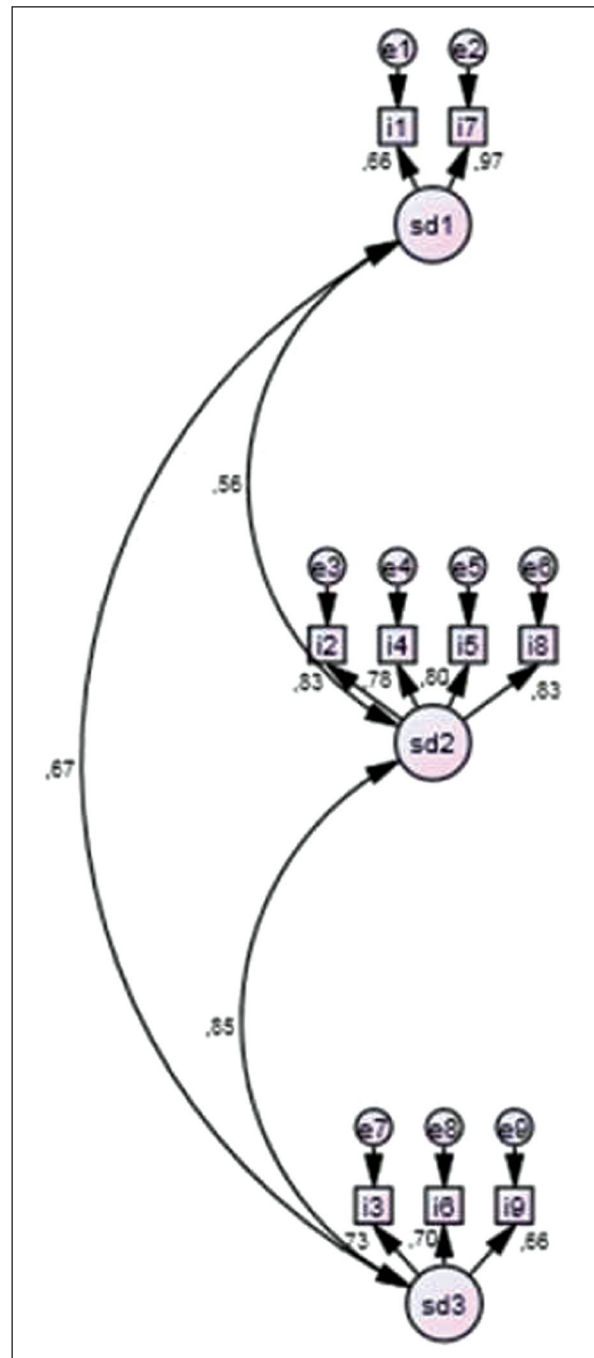


FIGURE 2: Confirmatory factor analysis results for the Ikigai-9 scale three-dimension model.

sd: Sub-dimension; i: Item; e: Error.

RELIABILITY

In order to measure the reliability of the Ikigai-9 scale, Cronbach alpha values were calculated. The internal consistency coefficient for the whole scale is

0.888 (Table 1). The internal consistency coefficients for sub-dimensions were calculated as 0.780 for I. sub-dimension, 0.886 for II. sub-dimension and 0.734 for III. sub-dimension. When the reliability coefficient is 0.70 and above, the scale is considered to be reliable.¹⁹ Accordingly, it can be said that the reliability coefficients of the whole Ikigai-9 scale and its sub-dimensions are at a sufficient level.

Score Distributions According to the Sub-dimensions of the Ikigai-9 Scale

When the distribution of scores according to the sub-dimensions of the Ikigai-9 scale and the arithmetic mean are examined, it is seen that the highest score belongs to II. sub-dimension. However, the high standard deviation in II. sub-dimension indicates that the participants gave more extreme answers. In other words, the participants gave both positive and negative answers to the questions related to *active and positive attitudes about the future*. The second sub-dimension with the highest total score is III. sub-dimension, *namely perceiving one's own existence as meaningful in relation to society* (Table 1).

Findings on the Relationship between Demographic Information and Ikigai-9 Scale

The results of the test for the scale and its sub-dimensions, about the participants' gender, age, education, economic status, knowledge of the term *Ikigai* and relationship between participants' mental well-being and *Ikigai* were as follows:

GENDER

Ikigai scores as well as their scores for I. sub-dimension and III. sub-dimension don't show statistically significant difference according to their gender ($u=5179.500, 5593.500, 5937.000; p>0.05$). Participants' scores for II. sub-dimension show a statistically significant difference according to their gender ($u=4443.500; p<0.05$). Scores of female participants for II. sub-dimension are higher than male participants. It means women have higher active and positive attitudes about the future than men (Table 2).

TABLE 1: Sub-dimension construct and factor loadings of the IS.

Sub-dimensions	Item No.	Item	Factor loading	Cronbach alpha	Total score	Arithmetic mean	Standard deviation
Optimistic and positive feelings about the present life (I)	IS 1	I often feel that I am happy.	0.974	0.780	1784	7.4025	2.01862
	IS 7	I am very satisfied with my life.	0.778				
	Variance ratio explained (%)		12.700				
Active and positive attitudes about the future (II)	IS 2	I would like to learn something new or start something new.	0.856	0.886	4171	17.3071	3.52803
	IS 4	There is room in my mind for myself and others.	0.922				
	IS 5	I'm interested in a lot of things.	0.771				
	IS 8	I would like to develop my potential.	0.837				
	Variance ratio explained (%)		53.640				
Perceiving one's own existence as meaningful in relation to society (III)	IS 3	I think I contribute to others or to society.	0.557	0.734	2941	12.2033	2.50752
	IS 6	I think my existence is necessary for something or someone.	0.557				
	IS 9	I think I have an influence on someone.	0.972				
Variance ratio explained (%)		7.887	0.888 (whole scale)	8896	36.9129		
Total variance explained (%)		74.227					

IS: Ikigai-9 scale.

TABLE 2: Mann-Whitney U test results of participants' Ikigai scores according to the gender and the age groups.

Score	Ikigai		I. sub-dimenssion		II. sub-dimenssion		III. sub-dimenssion	
	Female	Male	Female	Male	Female	Male	Female	Male
Gender								
N	170	71	170	71	170	71	170	71
Rank means	126.03	108.95	123.60	114.78	130.36	98.58	121.58	119.62
U	5179.500		5593.500		4443.500		5937.000	
p value	0.082		0.362		0.001		0.840	
Age groups								
N	60-64 74	65+ 167	60-64 74	65+ 167	60-64 74	65+ 167	60-64 74	65+ 167
Rank means	138.68	113.17	133.43	115.49	138.70	113.16	136.62	114.08
U	4871.000		5259.500		4869.500		5023.000	
p value	0.009		0.061		0.007		0.019	

AGE

Ikigai scores as well as their scores for II. sub-dimension and III. sub-dimension show a statistically significant difference according to their age ($u=4871.000, 4869.500, 5023.000$; $p<0.05$). The total Ikigai scores of the participants aged 60-64 years are higher than the participants aged 65 and over. The scores of participants for sub-dimension-I don't show a statistically significant difference according to the age of participants ($u=5259.500$; $p>0.05$). It means the participants aged 60-64 years have more active and positive attitudes about the future than aged 65 and over and perceive their existence as meaningful in relation to society (Table 2).

EDUCATIONAL BACKGROUND

There is no statistically significant difference between participants' educational background and Ikigai scores of II. sub-dimension and III. sub-dimension ($\chi^2: 1.814, 4.185, 1.146$; $sd: 3$; $p>0.05$). There is a statistically significant difference between the educational background of participants and I. sub-dimension ($\chi^2: 9.484$; $sd: 3$; $p<0.05$). I. sub-dimension scores of secondary school graduates are higher than the other categories. It means secondary school graduates have higher optimistic and positive feelings about the present life than individuals with other education levels (Table 3).

ECONOMIC STATUS

There is no statistically significant difference be-

tween II. sub-dimension and III. sub-dimension of Ikigai scores in economic status ($\chi^2: 4.213, 0.545, 2.094$; $sd: 2$; $p>0.05$). However, in the I. sub-dimension ($\chi^2: 10.975$; $sd: 2$; $p<0.05$), there is a statistically significant difference between the economic status of participants. The higher economic status of the participants, the higher their I. sub-dimension scores. It means that those with higher economic status have higher optimistic feelings about the present life than those with lower one (Table 3).

KNOWLEDGE OF THE TERM IKIGAI

Participants' Ikigai scores and their II. sub-dimension and III. sub-dimension scores don't show statistically significant difference according to their knowledge of *Ikigai* ($u=5550.500, 5848.500, 6284.000$; $p>0.05$). Participants' score for I. sub-dimension show a statistically significant difference according to their knowledge of *Ikigai* ($u=5169.500$; $p<0.05$). The participants who knew *Ikigai* had higher optimistic and positive feelings about the present life than those who didn't (Table 4).

FINDINGS ON THE RELATIONSHIP BETWEEN MENTAL WELL-BEING SCALE AND IKIGAI-9 SCALE

There is a positive relationship at a moderate level between the participants' mental well-being scores and Ikigai scores, which is statistically meaningful ($r=0.653$; $p<0.05$) (Table 5).

TABLE 3: Kruskal-Wallis H test results for participants' *Ikigai* scores according to the educational background and the economic status.

Score	Educational background	n (total=241)	Rank means	sd	X ²	p value
<i>Ikigai</i>	Elementary School	5	89.20	3	1.814	0.612
	Secondary School	8	140.38			
	High School	83	118.67			
	University and higher	145	122.36			
	Total	241				
I. sub-dimension	Elementary School	5	118.50	3	9.484	0.024
	Secondary School	8	193.13			
	High School	83	115.25			
	University and higher	145	120.40			
	Total	241				
II. sub-dimension	Elementary School	5	71.70	3	4.185	0.242
	Secondary School	8	129.31			
	High School	83	114.63			
	University and higher	145	125.89			
	Total	241				
III. sub-dimension	Elementary School	5	108.20	3	1.146	0.766
	Secondary School	8	114.06			
	High School	83	127.17			
	University and higher	145	118.29			
	Total	241				
Economic status						
<i>Ikigai</i>	Low	23	93.70	2	4.213	0.122
	Medium	210	123.38			
	High	8	137.00			
	Total	241				
I. sub-dimension	Low	23	78.91	2	10.975	0.004
	Medium	210	124.38			
	High	8	153.19			
	Total	241				
II. sub-dimension	Low	23	113.57	2	0.545	0.761
	Medium	210	121.34			
	High	8	133.50			
	Total	241				
III. sub-dimension	Low	23	101.63	2	2.094	0.351
	Medium	210	122.79			
	High	8	129.75			
	Total	241				

TABLE 4: Mann-Whitney U test results for participants' *Ikigai* scores according to the knowledge of the term *Ikigai*.

Score	Knowledge of the term <i>Ikigai</i>	n	Rank means	U	p value
<i>Ikigai</i>	Yes	77	130.92	5550.500	0.129
	No	164	116.34		
I. sub-dimension	Yes	77	135.86	5169.500	0.021
	No	164	114.02		
II. sub-dimension	Yes	77	127.05	5848.500	0.347
	No	164	118.16		
III. sub-dimension	Yes	77	120.61	6284.000	0.952
	No	164	121.18		

TABLE 5: Spearman rank difference correlation coefficient between participants' mental well-being scores and Ikigai scores.

		Mental well-being scores	Ikigai scores
Mental Well-Being Scores	r	1.000	0.653
	p	.	0.000
	n	241	241
Ikigai Scores	r	0.653	1.000
	p	0.000	.
	n	241	241

DISCUSSION

The previous study found that older individuals who perceived their existence as more important to others experienced a state of general well-being and lower levels of depression.⁸ Older adults' sense of being cared for by others is a beneficial factor for their psychological health. In this study, only the group of aged 60-64 showed a significant relationship between Ikigai and *perceiving their existence as meaningful in relation to society*.

Many studies have found a positive relationship between Ikigai and physical and psychological health, the relationship between Ikigai and well-being/depression and also between Ikigai and physical activity/multiple drug use has been examined in Türkiye.^{4,6,14,20} This study also found a positive and a moderate-level relationship between the mental well-being scores of Turkish older adult participants and their Ikigai scores, which is statistically significant.

Since Ikigai includes elements such as an expectation for the future, motivation for self-actualization, and the search for the meaning of life, there is a need for studies that focus on how individuals' Ikigai affects their healthy life expectancy both now and in the future, especially if the concept of resilience is to be incorporated into ageing research.^{2,3,11,12} This also calls for research focusing on how people can be motivated to discover their Ikigai and how it can be enhanced. Based on the results of this study, it is essential to boost motivation among men, particularly older adults, to discover their Ikigai for the future.

A positive correlation was observed between individuals' increased participation in social activities and an increase in their sense of Ikigai, as well as between the establishment of human relationships and their sense of Ikigai.⁹ According to this prior study, there may be valuable outcomes from research on social participation as a potential pathway to acquiring Ikigai. In this study, a relationship between social participation and Ikigai was observed in the 60-64 age group, highlighting the need for further research to promote social participation among the older population.

In conclusion, when compared to the factor analysis of the original scale, this study did not fully support the original findings because the CFA (1) moved item 4 (relaxed in life) to the part of II. sub-dimension instead of I. sub-dimension.¹⁵ A similar result was also observed in a previous study conducted in the UK.¹³ These differences may be due to miss-translation or cultural differences between the UK/Türkiye and Japan. If the variation can be explained by cultural differences between Türkiye and Japan. If the variation can be attributed cultural differences between Türkiye and Japan, it may inspire further studies.

CONCLUSION

Future research is needed to better understand how to develop strategies to foster improved acceptance of Ikigai as an important factor for the healthy aging. Beyond establishing the existence of a positive relationship between Ikigai and healthy aging, studies should focus on how Ikigai can be cultivated and allowed to flourish among older adults. More rigorous research is also required to further explore the effects of economic status and aging in place on mental health and well-being on one's Ikigai in later life.^{21,22}

The association of Ikigai with improved health and well-being presents an important challenge for the medical and allied health professions to explore the potential benefits of incorporating Ikigai as an integral component in the promoting healthier lifestyle behaviors. This could lead to a reduction in morbidity and mortality risks across the population. There

should be greater awareness of Ikigai in Türkiye through specific research projects examine the relationship between physical and psychological health and Ikigai.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or mem-

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Authorship Contributions

Idea/Concept: İkuko Murakami; **Design:** Deniz Arıkan; **Control/Supervision:** İkuko Murakami; **Data Collection and/or Processing:** Jülide Yılmaz, Deniz Arıkan, Ebru Acarbaş, Mustafa Berk Armağan; **Analysis and/or Interpretation:** Özgen Yılmaz; **Literature Review:** Jülide Yılmaz; **Writing the Article:** İkuko Murakami, Jülide Yılmaz, Özgen Yılmaz; **Critical Review:** İkuko Murakami; **Acknowledgment:** Terence Seedsman, Hisao Osada.

REFERENCES

- Seligman M. Flourish: Australia: Random House Australia; 2012.
- Imai T, Osada H, Nishimura Y. The structure of the Ikigai concept among retirees aged 60 and over: the difference between the concept of Ikigai and the subjective well-being. *Japanese Journal of Gerontology*. 2009;31(3):366-77. [Link]
- Kamiya M. *İkigai ni tsuite (About Ikigai)*. 1st ed. Tokyo: Misuzu-Shobou; 1996.
- Mori K, Kaiho Y, Tomata Y, Narita M, Tanji F, Sugiyama K, et al. Sense of life worth living (ikigai) and incident functional disability in elderly Japanese: The Tsurugaya Project. *J Psychosom Res*. 2017;95:62-7. Erratum in: *J Psychosom Res*. 2017;96:106. [Crossref] [PubMed]
- Wilkes J, Garip G, Kotera Y, Fido D. Can Ikigai predict anxiety, depression, and well-being? *Int J Ment Health Addict*. 2022;1-13. [PubMed] [PMC]
- Okuzono SS, Shiba K, Kim ES, Shirai K, Kondo N, Fujiwara T, et al. Ikigai and subsequent health and wellbeing among Japanese older adults: Longitudinal outcome-wide analysis. *Lancet Reg Health West Pac*. 2022;21:100391. [Crossref] [PubMed] [PMC]
- Sone T, Nakaya N, Ohmori K, Shimazu T, Higashiguchi M, Kakizaki M, et al. Sense of life worth living (ikigai) and mortality in Japan: Ohsaki Study. *Psychosom Med*. 2008;70(6):709-15. [Crossref] [PubMed]
- Dixon AL. Mattering in the later years: older adults' experiences of mattering to others, purpose in life, depression and wellness. *Adultspan Journal*. 2007;6(2):83-95. [Crossref]
- Seko K, Hirano M. Predictors and importance of social aspects in ikigai among older women. *Int J Environ Res Public Health*. 2021;18(16):8718. [Crossref] [PubMed] [PMC]
- Donicht-Fluck B. Changing cultural concepts of old age and their impact on older adult education in Germany and the US: economic versus expressive individualism. *Education and Ageing*. 2002;17:169-78. [Link]
- Bauman SJ, Harrison A, Waldo M. Resilience in the oldest old. *Counseling and Human Development*. 2001;34(2):1. [Link]
- Wild K, Wiles JL, Allen RE. Resilience: thoughts on the value of the concept for critical gerontology. *Ageing & Society*. 2013;33(1):137-58. [Crossref]
- Fido D, Kotera Y, Asano K. English Translation and validation of the Ikigai-9 in a UK sample. *International Journal of Mental Health and Addiction*. 2020;18(5):1352-9. [Crossref]
- Belice T, Özkan Yıldırım N, Gürsoy U, Murakami I, Demir I, Yüksel A, et al. The Turkish version of the Ikigai-9 Scale: a validity and reliability study. *Research Square*. 2022:2-11. [Crossref]
- Imai T. [The reliability and validity of a new scale for measuring the concept of Ikigai (Ikigai-9)]. *Nihon Kosho Eisei Zasshi*. 2012;59(7):433-9. Japanese. [PubMed]
- Demirtaş AS, Baytemir K. Warwick-Edinburgh Mental İyi Oluş Ölçeği Kısa Formu'nun Türkçe'ye uyarlanması: geçerlik ve güvenilirlik çalışması [Adaptation of warwick-edinburgh mental well-being scale short form into Turkish: validity and reliability study]. *Elektronik Sosyal Bilimler Dergisi*. 2019;18(70):689-701. [Crossref]
- Birinci E. 60+ Tazelenme Üniversitesi öğrencilerinin sosyal medya kullanım durumlarının incelenmesi [An investigation of social media usage students of 60+ Refresher University]. 19 Mayıs Sosyal Bilimler Dergisi. 2021;2(1):137-47. [Link]
- İlhan M, Çetin B. LISREL ve AMOS programları kullanılarak gerçekleştirilen yapısal eşitlik modeli (YEM) analizlerine ilişkin sonuçların karşılaştırılması [Comparing the analysis results of the structural equation models (SEM) conducted using LISREL and AMOS]. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi*. 2014;5(2):26-42. [Crossref]
- Büyüköztürk Ş. *Sosyal Bilimler İçin Veri Analizi El Kitabı*. 11. Baskı. Ankara: Pegem Akademi Yayıncılık; 2010.
- Belice T, Yıldırım NO, Gürsoy U, Gülerüz O, Demir I, Yüksel A. The relationship between physical activity and polypharmacy with Ikigai in a population. *EUREKA: Health Sciences*. 2022;(2):3-9. [Crossref]
- Fukuzawa A, Katagiri K, Harada K, Masumoto K, Chogahara M, Kondo N, et al. A longitudinal study of the moderating effects of social capital on the relationships between changes in human capital and Ikigai among Japanese older adults. *Asian Journal of Social Psychology*. 2019;22(2):172-82. [Crossref]
- Sawada S, Toyosato T. The moderating effect of place attachment on the relationship between economic status and well-being among the older adults in Japan. *Geriatr Nurs*. 2021;42(3):721-6. [Crossref] [PubMed]