

## Original Article

## Factors Affecting Levels of Satisfaction with Aging in place in Turkey

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### Abstract

**Background:** The population of older adults is increasing in Turkey and in World. With the increase of elderly population, the place where they are aging in and which areas they need support is getting more important.

**Aim:** The aim of the study was to explore key factors affecting levels of satisfaction with aging in place in Turkey.

**Methods:** The study was descriptive and the data were collected from January to July 2019 in a geriatric department of a university hospital. The study included 203 older adults. A demographic data form consisting of 15 items and Aging in Place Scale consisting of 15 items were used to collect data.

**Results:** The mean age of participants was  $70.51 \pm 6.63$ , and 78.8% were female. A statistically significant relationship was found between the satisfaction of older adults with aging in place and some factors such as gender, income level, family structure, access to a hospital, social entertainment. There was a positive correlation between the satisfaction with aging in place and how many years they have lived in their current residence. There was a negative correlation between the time to access a hospital and satisfaction with aging in place of older adults. According to regression analysis the most important factors affecting the satisfaction with aging in place were social entertainment, gender and age.

**Conclusion:** Many factors were affecting the satisfaction with aging in place. However, the most important factors were social entertainment, gender and age. These factors should be considered for the decision of aging in place.

**Key Words:** Aging in Place, Older Adults, Satisfaction

### Introduction

Along with developments in health services and social changes, the older population is growing worldwide. With the decrease in birth rates, the proportion of older people in developed and developing countries is increasing (Bulduk, 2014). According to the World Health Organization (WHO), the proportion of older people in the world was 12% in 2015, and it will reach 22% with more than two billion people over the age of 60 in 2050 (WHO, 2015). The

proportion of older adults in Turkey is 8.8% in 2018 (Health Ministry of Turkey, 2018).

The place where older adults age is becoming more important as the population of older adults rises (Callahan, 2019). The alternatives for aging include home, nursing home, etc. However, most older adults desire to age in their own homes and communities. This provides autonomy, independence, and social support and increases the quality of life (Wiles et al., 2012; Theofanidis & Fountouki, 2006). A trend to a nuclear family

structure in Turkey causes older adults living independently. However, traditional family ties are still strong in Turkish society and this contributes to enabling aging in place (Turkish Statistical Institute, 2016).

The term “aging in place” is receiving attention in recent years and in recent studies. This term is used to describe a person living in the residence of their choice, for as long as they are able, as they age. Homes of older adults are remodeling (accessibility, universal model) for aging in place. Older adults may require support but each person’s support needs are unique. So, it is important to determine which issues support should be given to individuals. There are limited studies about the factors affecting the satisfaction of older adults about aging in place (Aging in Place Basics, 2019).

This study was conducted with the aim of determining the satisfaction of older adults with aging in place and the factors affecting this.

## Materials and METHODS

**Study Design and Participants:** The research was descriptive and cross-sectional (6 months). It was carried with 203 older adults admitted to a University Hospital Geriatrics Department in Turkey, who were aged 65 years or older and accepted to be a participant in the study. A convenience sample of patients was obtained from among all older adults admitted to the hospital.

**Data Collection:** Data were collected from January to June 2019. A demographic data form and the Ageism Attitude Scale were used to collect data.

**Demographic data form:** This form consisted of 15 items, collecting information on individuals’ age, gender, year of study, marital status, family characteristics, where they were living, ownership of the home, type of residence, accessibility to hospitals, shopping opportunities, social entertainment, and chronic disease.

**Aging in Place Scale (APS):** The scale was developed to determine the satisfaction level of older adults with aging in place. The scale was developed by Kalinkara and Arpacı in 2017. The scale includes 15 item and three subdomains (perceived social support, obtainable social support, physical competence). The Cronbach alpha reliability coefficient was 0.90. Higher mean scores on this scale indicate a high level of

satisfaction; the score ranged from 15 to 75. There is no cut or classification for satisfaction, this scale provide the comparison of level between groups (Kalinkara & Arpacı, 2013).

**Data Analysis:** Data were analyzed using SPSS version 25.0. The descriptive data in the study are presented as numbers (n) and percentages (%). Inferential analysis was performed with parametric and non-parametric tests. Pearsons correlation test was used to determine the relationship between groups. The correlation (positive or negative) was considered low for values between 0.20 and 0.40, moderate for values between 0.40 and 0.60, and high for values between 0.60 and 0.80 and excellent for >0.80. After the normal distribution of data was evaluated, linear regression analysis was used to evaluate the effect of sociodemographic and residence-related characteristics on satisfaction of Turkish older adults

**Ethics:** Written approval to conduct the research was obtained from Ege University Medical Research Ethical Committee (protocol number 19-1T/32, dated 1.9.2019), from Ege University Hospital (No. 54148036-100) and from the participants.

## Results

Out of 203 participants, 78.8% were female, 66.0% were married, 76.4% were retired, 55.7% had a nuclear family structure and their mean age was  $70.51 \pm 6.63$ . It was reported by 69.0% of the participants their income is equal to their expenses. A total of 76.8% were living in the metropolitan. 81.3% had minimum one chronic disease. Of participants, 99.6% were living in their own home, 90.1% were living in an apartment, 88.7% were house owners, and only 1.5% had a pet. 74.9% were able to access hospital without help, 90.6% were able to shop without help, 75.4% were able to join social entertainment without help. They had been living in their current residences for a mean  $27.81 \pm 16.42$  years, and they can access the hospital in  $42.14 \pm 32.35$  minutes. Perceived social support ( $p=0.001$ ), obtainable social support ( $p<0.001$ ), physical competence ( $p<0.001$ ) subscales, and total APS ( $p<0.001$ ) mean points were higher in females than males. There was no significant difference between married and single people, and between the participants who had any chronic disease or not, for APS and subscales mean points. There was a significant difference between income levels.

There was no significant difference between the participants' APS and subscale mean scores and where they were living. There was a significant difference between the family structure and perceived social support ( $p=0.020$ ), obtainable social support ( $p<0.001$ ), physical competence ( $p=0.027$ ) and APS total ( $p=0.004$ ) mean points. Access to a hospital with or without a relative's help is another factor that shown significant differences in obtainable social support ( $p=0.005$ ), physical competence ( $p=0.008$ ) and APS total ( $p=0.007$ ). We found that there was a significant difference between to participate in social entertainment or not for perceived social support ( $p<0.001$ ), obtainable social support ( $p<0.001$ ), physical competence ( $p<0.001$ ) and APS total ( $p<0.001$ ) mean points. There was a

negative weak correlation between age and obtainable social support ( $r=-0.267$ ). The years they lived in their current residence shows positive moderate correlation with perceived social support ( $r=0.387$ ), obtainable social support ( $r=0.479$ ), physical competence ( $r=0.455$ ) and APS total ( $r=0.474$ ). The duration they could access to the hospital shows and negative weak correlation with perceived social support ( $r=-0.315$ ), obtainable social support ( $r=-0.228$ ), and total APS score ( $r=-0.234$ ).

According to regression analysis, the most important factors affecting the satisfaction with aging in place were social entertainment ( $R^2=0.260$ ,  $p<0.001$ ), gender ( $R^2=0.144$ ,  $p<0.001$ ) and age ( $R^2=0.112$ ,  $p<0.001$ ).

**Table 1: Sociodemographic Distributions of Participants**

	n	%
<b>Gender</b>		
Male	43	21.2
Female	160	78.8
<b>Marital Status</b>		
Married	134	66.0
Single	69	34.0
<b>Family Structure</b>		
Nuclear Family	113	55.7
Extended Family	42	20.7
Living Alone	48	23.6
<b>Living in</b>		
Metropolitan	156	76.8
City	21	10.4
Town - Village	26	12.8
<b>Do you have any chronic disease?</b>		
Yes	165	81.3
No	38	18.7
<b>Income level</b>		
Income is lower than the expense	44	21.7
Income is equal to the expense	140	69.0
Income is higher than the expense	19	9.3
<b>Work</b>		
Retired	155	76.4
Others (never worked, still working)	48	23.6
	<b>Mean±SD</b>	
Age	70.51±6.63	

**Table 2:** Distributions of factors about the residence

<b>Residence</b>		
Home	196	96.6
Nursing Home	7	3.4
<b>Type of residence</b>		
Apartment	183	90.1
Detached house	20	9.9
<b>Ownership of home</b>		
Rent	16	8.2
Owner	180	91.2
<b>Pet owner</b>		
Yes	3	1.5
No	200	98.5
<b>Access to a hospital</b>		
Alone	152	74.9
With a relative's help	51	25.1
<b>Shopping</b>		
I can do it for myself	184	90.6
With a relative's help	5	2.5
I can't	3	1.5
A relative do it for me	11	5.4
<b>Social entertainment</b>		
I can participate without help	153	75.4
With a relative's help	25	12.3
I can't participate in	25	12.3
	<b>Mean±SD</b>	
Have many years have you been living in your current residence?	27.80±16.42	
How many minutes can you access a hospital?	42.14±32.35	

**Table 3: Distribution by Groups of Participants' Mean Scores on the APS and the Subscales**

	Perceived Social Support	Obtainable Social Support	Physical Competence	Total
<b>Gender</b>				
Male	23.14±5.46	13.63±3.70	18.35±6.30	55.12±14.15
Female	25.03±4.43	15.64±4.13	21.54±5.28	62.21±12.98
	<i>p</i> =0.001	<i>p</i> <0.001	<i>p</i> <0.001	<i>p</i> <0.001
<b>Marital Status</b>				
Married	24.48±5.49	15.28±4.24	20.92±5.92	60.68±14.77
Single	24.93±2.63	15.09±3.89	20.75±5.13	60.77±10.79
	<i>p</i> =0.314	<i>p</i> =0.927	<i>p</i> =0.247	<i>p</i> =0.172
<b>Do you have any chronic disease?</b>				
Yes	24.56±5.07	15.02±4.32	20.65±5.78	60.24±14.40
No	24.95±2.68	16.05±2.98	21.76±5.05	62.76±8.57
	<i>p</i> =0.349	<i>p</i> =0.418	<i>p</i> =0.079	<i>p</i> =0.509
<b>Income level</b>				
Income is lower than the expense	24.01±3.35	13.80±4.21	19.57±7.11	57.36±12.90
Income is equal to the expense	24.58±5.22	15.35±4.10	20.97±5.42	60.90±14.08
Income is higher than the expense	26.47±2.80	17.53±2.72	23.05±2.32	67.05±7.24
	<i>p</i> <0.001	<i>p</i> =0.001	<i>p</i> =0.281	<i>p</i> =0.016
<b>Living in</b>				
Metropolitan	25.16±3.86	15.33±3.59	21.38±4.86	61.87±11.23
City	25.95±4.36	16.67±2.80	20.24±6.22	62.86±12.71
Town	20.38±7.06	13.38±6.74	18.27±8.48	52.04±21.79
	<i>p</i> =0.076	<i>p</i> =0.737	<i>p</i> =0.539	<i>p</i> =0.239
<b>Family Structure</b>				
Nuclear Family	25.67±3.03	16.30±2.79	21.89±4.22	63.87±8.65
Extended Family	24.12±5.92	13.98±5.22	20.10±7.60	58.19±17.84
Living Alone	22.63±6.02	13.75±4.91	19.10±6.18	55.48±16.49
	<i>p</i> =0.020	<i>p</i> <0.001	<i>p</i> =0.027	<i>p</i> =0.004
<b>Access to a hospital</b>				
Alone	24.78±4.32	15.85±3.55	21.99±4.44	62.62±11.48
With a relative's help	24.18±5.76	13.33±5.05	17.51±7.36	55.02±17.20
	<i>p</i> =0.278	<i>p</i> =0.005	<i>p</i> =0.008	<i>p</i> =0.007
<b>Social entertainment</b>				

		<b>B</b>	<b>β</b>	<b>R<sup>2</sup></b>	<b>t</b>	<b>p</b>
<b>Constant</b>		65.63			5.36	p<0.001
<b>Gender</b>		12.75	0.380	0.144	5.83	p<0.001
<b>Age</b>		-0.723	-0.335	0.112	-5.041	p<0.001
<b>Income level</b>		2.62	0.101	0.010	1.44	p=0.151
<b>Family structure</b>		-3.30	-0.193	0.037	-2.79	p=0.006
<b>Living in</b>		-2.74	-0.139	0.019	-1.99	p=0.048
<b>Access to the hospital</b>		-7.15	-0.245	0.060	-3.59	p<0.001
<b>Social entertainment</b>		-9.50	-0.510	0.260	-8.40	p<0.001
I can participate without help	24.93±4.32	15.98±3.50		21.71±4.37		62.62±11.44
With a relative's help	27.16±3.26	16.48±2.22		24.12±3.96		68.64±5.16
I can't participate in	20.28±5.60	9.28±4.24		11.52±5.87		41.08±13.88
	p<0.001	p<0.001		p<0.001		p<0.001
<b>Total (n=203)</b>	24.63±4.71	15.22±4.11		20.86±5.65		60.71±13.52

**Table 4: Correlations between age, years in current residence, and APS (total and subscales) Izmir, Turkey**

	Perceived Social Support	Obtainable Social Support	Physical Competence	Total
Age	-0.016	-0.267	-0.180	-0.184
Have many years have you been living in your current residence?	0.387	0.479	0.455	0.474
How many minutes can you access a hospital?	-0.315	-0.228	-0.128	-0.234

## Discussion

Aging in place is a new and common approach for older adults. It provides some physical, social, psychological benefits to older adults. However, it is not clear if are all older adults able to age in place, which factors should be considered for aging in place, which areas should health professionals and public companies support. This study was carried out with the aim of finding the answers to these questions. In the current study, the Aging in Place Scale (APS) was used to determine the satisfaction of older adults with where they were aging. Higher mean scores on this scale indicate higher satisfaction.

The satisfaction with aging in place was high among the older adults in the current study.

In the current study, we found that women are more satisfied than men with aging in place. Women in this generation (65 years and older) spend more time at home and more experienced in chores than men. This provides women their independence in these issues (Callahan, 2019). We think that this affects their satisfaction. We found that income level affects satisfaction. Costa-Font (2009) and the National Health Committee (1998) reported that higher income level enables people to live in socioeconomically advantaged neighborhoods and this provides them with better health and longer life

expectancy (Costa-Font et al., 2009; National Health Committee, 1998). We think that this may be why the income level is affecting satisfaction. We found that family structure affects satisfaction. The nuclear family structure led to the highest satisfaction, extended (traditional) family structure followed it, and the people living alone had the lowest satisfaction. Perceived social support from family increase satisfaction (Ferguson & Goodwin, 2010; Theofanidis, 2005).

Access to the hospital affected satisfaction. The older adults who had access to the hospital without any help were more satisfied meaning that they were independence with regard to this issue (Callahan, 2019). Increases independence results in increased satisfaction.

Social entertainment is one of the most important factors affecting satisfaction. The people who cannot participate in social entertainment showed the lowest satisfaction. One of the major purposes of aging in place is to provide social support not to change people's social relationships. If people cannot participate in social entertainment, it means that there are some problems with aging in place (Callahan, 2019; Oswald et al., 2010). Moreover, to participate in social entertainment with a relation's help shows the highest satisfaction. This means perceived social support from family affects aging in place.

In the current study, the years they lived in their current residence showed a moderate positive relationship with satisfaction. The longer they had been living in their current residence the more satisfied they were. This explains that aging in place has achieved its main purpose (Callahan, 2019; Bahar et al., 2009).

**Limitations:** The results of this study represent only Turkish society. The results were based on self-reported answers, so the researchers did not assess their residence. The participants were the older adults who admitted to the hospital. The study was not a populations based study.

**Conclusion:** As a result, we found that the social entertainment, gender and age were the most important factors affecting satisfaction of older adults with aging in place. These factors should be considered for the decision of aging in place. We recommend local administrates to support them to participate in social entertainment.

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