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Comparison of Quality of Life of Elders Living in Nursing Homes and in Their Homes and the Relationship with Socio-Demographic Factors

Huzurevinde ve Evde Yaşayan Yaşlılarda Yaşam Kalitelerinin Karşılaştırılması ve Bu Durumun Sosyo-Demografik Faktörlerle İlişkisi

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Abstract
Objectives: Improving the quality of life for the rapidly growing elderly population plays a key role in good health standards. This study aims to compare the quality of life of elderly people living in their home and senior centers, and to determine socio-demographic factors that could affect their quality of life.
Materials and Methods: In this study, we enrolled 400 people aged ≥65 years; 198 of them were elderly who applied for any reason to Etfal Training and Research Hospital Family Medicine Policlinic, between February-October 2014; and 202 of them were living in Nursing Homes. The survey questioned socio-demographic features and the Turkish version of quality of life developed by World Health Organization was applied.
Results: We examined 400 people [188(47%) males and 212(53%) females]. Of these, 202 (50.50%; average age=73.26±6.68 years) were living in their homes and 198(49.50%; average age: 73.19±7.27 years) in senior centers. Furthermore, the physical, psychological, social and environmental field scores of people living in their homes were significantly higher than those living in senior centers (P < 0.001).
Conclusion: This study reveals that the quality of life is higher in elderly who live in their homes than those who live in nursing homes. The older age, marital status, higher education level, increase in the income, and not having children negatively affect the quality of life in individuals living in their homes. In elderly people living in senior centers, advanced age, female gender and having a chronic illness negatively affect the quality of life.
Key words: Elderly, quality of life, nursing home

Öz
Amaç: Hızla artan yaşlı nüfusta yaşam kalitesinin iyileştirilmesi, iyi sağlık standardı için anahtar rol oynamaktadır. Araştırmamızda huzurevinde ve kendi evinde yaşayan yaşlıların yaşam kalitelerini etkileyen faktörler tespit edilmesi hedeflenmiştir.
Materyal ve Metot: Çalışmaya Mart-Kasım 2014 tarihleri arasında Şişli Hamidiye Etfal Hastanesi Aile Hekimliği Polikliniğine başvuran 65 yaş ve üstü 198 birey ile huzurevinde yaşayan 202 birey olmak üzere toplam 400 kişi alındı. Araştırmamızda kişilerin sosyodemeografik bilgilerini sorgulayan bir anket formu ve Dünya Sağlık Örgütü tarafından geliştirilen yaşam kalitesi ölçeği kısa formunun Türkçe versiyonu uygulandı.
Bulgular: Çalışmamıza 188'i (%47,00) erkek ve 212'si (%53,00) kadın olmak üzere toplam 400 hasta katıldı. Bunların 202'sini (%50,50) kendi evinde kalan bireyler 198'ini (%49,50) ise huzurevinde kalan bireylerdi. Hastaların yaş ortalaması kendi evinde kalanlarda 73,26±6,68 iken huzurevinde kalanlarda 73,19±7,27 idi. Kendi evinde yaşayanların bedensel, ruhsal, sosyal ilişkiler ve çevre alanı skoru huzurevinde kalanlardan anlamlı olarak daha yüksek bulundu (p<0,001).
Sonuç: Araştırmamıza göre kendi evinde yaşayanların yaşam kalitesi huzurevinde yaşayanlardan daha yüksektir. Kendi evinde yaşayan bireylerde ileri yaşın, medeni durumun, yüksek eğitim düzeyi, yüksek gelir düzeyi, çocuk sahibi olmama; huzurevinde yaşayan bireylerde ise ileri yaşın, kadın cinsiyet ve kronik hastalık varlığı yaşam kalitesini olumsuz etkilemekteydi
Anahtar kelimeler: Yaşlı, yaşam kalitesi, huzurevi

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Introduction

Although no standard definition exists for ageing, various definitions are provided in the fields of physiology, biology, economy or sociology. The World Health Organisation (WHO) accepts the chronological definition for ageing and considers this period as '≥65 years'.[1] Based on population projections, all over the world, while the ratio of aged people was 7.7% in 2013, it is projected to increase to 10% in 2023, 20.8% in 2050 and 27.7% in 2075.[2] In Turkey, the elderly population increased 17% and reached to 6 895 385 people.[2] These high numbers should alert us as the needs of elderly population: their living conditions, environment, physical, cognitive, nutritional deficiencies and so on.[3,4]

As a person age, significant negative outcomes, which leads to lower his quality of life. Poor mental health, physical co-morbidities, poor coping abilities, impaired functioning and cognitive performance and bereavement makes him dependent.[5,6]

In 2017, elderly dependence ratio in Turkey is12.6% however it is estimated that this ratio will increase to 15.2% in 2013 and 37.5% in 20160.[2]

Some aged people in the elderly population group are too weak to take care of themselves and need care. Senior centres, a specific service for this group, are another service model and provide geriatric care and rehabilitation services for those who are alone with disability or dysfunction. Special care departments in senior centres and continuous care and rehabilitation centres offer services for aged people who need special care. In our country, elderly service centres constitute another institutional model that provides services to aged people other than senior centres.[7,8]

Services in these centres include therapy, medical treatment and special care. The services offered by the Ministry of Family and Social Policy in our country focus on these senior centres. There are 384 Senior Centers (182 of them private) and these centers serve 31911 elderly people. Regarding the increasing elderly population numbers, we can say it is not enough.[9]

This study aims to compare the quality of life of aged people living in their home and senior centres and to determine socio-demographic factors that could affect their quality of life.

Materials and Methods

In this study, we enrolled 400 people aged ≥65 years; of these, 198 consulted the Etfal Training and Research Hospital Family Medicine Policlinic for any reason, and 202 lived in Nursing Home. This prospective, cross-sectional study was conducted on between September 2014- December 2014 and approved by the local ethics committee on 02/09/2014. We excluded people aged <65 years, with communication disabilities (e.g. hearing and seeing), who refused to participate in the study and with psychiatric

disorders from the study. The survey questioned socio-demographic characteristics (age, gender, marital status, educational status, number of children, current illness, income status, smoking status and number of households), and the Turkish version of quality of life (WHOQOL-BREFTR) developed by the WHO was applied.

The scale comprises 26 questions in four sub-fields that measure physical, psychological, social and environmental well-being. In the Turkish version, the question 27 was added as a national question. We evaluated the scores of four fields separately. In addition, sub-field scores were calculated separately for each area from 4 to 20 and 0 to 100. We used average, standard deviation, median lowest, highest, frequency and ratio values in the descriptive statistics. The distribution of variables was measured using the Kolmogorov–Smirnov test. Furthermore, the Kruskal–Wallis and Mann–Whitney *U* tests were used for the quantitative data analysis. We considered $p<0.05$ as statistically significant.

Results

We examined 400 people [188 (47.00%) males and 212 (53.00%) females]. Of these, 202 (50.50%; average age: 73.26±6.68 years) were living in their homes and 198 (49.50%; average age: 73.19±7.27 years) in senior centres. Table 1 summarises the distribution of socio-demographic characteristics of patients.

When patients were assigned to three groups based on age, the psychological, social relations and environmental field scores did not differ significantly ($p>0.05$) in patients living in senior centres. The physical field score was significantly lower in the age group of ≥85 years than 65–74 and 75–84 age groups ($p=0.012$). However, the comparison revealed no significant difference between the 65–74 and 75–84 age groups ($p>0.05$). As the age increased, the scores in all areas decreased in patients living in their homes, and we observed a marked difference between the scores in the physical field according to age ($p<0.05$). The comparison of the age group of individuals living in their own homes and nursing homes is shown in Table 2.

While the quality of life did not differ significantly among all sub-fields and gender ($p = 0.05$) in patients living in their homes, the scores of physical, mental and environmental fields were significantly lower in females than males living in senior centres ($p<0.001$). However, social relations scores of patients living in senior centres were similar in both sexes ($p>0.05$). The comparison of the individuals living in their own home and the nursing home by gender is shown in Table 3.

Among married and non-married patients, no significant difference was observed in the score of the physical and social relations field in those living in their homes; however, a difference was noted in psychological and environmental field scores ($p=0.023$ and 0.002, respectively). In patients living in senior centres, no significant difference was noted in all sub-field scores of married and non-married patients (Figure 1).

In those living in their home, the physical field score of non-literate patients was significantly lower than those who graduated from elementary school, high school and university ($P<0.05$). We observed no marked difference in the score of physical, psychological, social relations and environmental fields based on the educational status of those living in senior centres. Based on the presence of chronic disease, the

physical, psychological, social and environmental field scores of people with chronic illnesses and non-chronic illnesses living in their own homes did not differ significantly (p>0.05).

Table 1. The Distribution of Patients' Socio-Demographic Characteristics

		Participants Living in Their Own Home		Participants Living in Nursing Home		Total Participants	
		n	(%)	*n*	(%)	*n*	(%)
Gender	Male	66	32.67	122	61.62	188	47.00
	Female	136	67.33	76	38.38	212	53.00
Age	65–74	125	61.88	122	61.62	247	61.75
	75–84	67	33.17	57	28.79	124	31.00
	≥85	10	4.95	19	9.60	29	7.25
Level of education	Education None	20	9.90	82	43.16	102	25.50
	Primary education	73	36.14	87	45.79	160	40.00
	High school	55	27.23	21	11.05	76	19.00
	University	54	26.73	8	3.88	62	15.50
Marital status	Unmarried	20	9.90	58	28.16	78	19.50
	Married	111	54.95	12	5.83	123	30.75
	Divorced	8	3.96	23	11.17	31	7.75
	Divided	12	5.94	35	16.99	47	11.75
	Widowed	51	25.25	70	33.98	121	30.25
Number of children	No children	40	19.80	91	45.96	131	32.75
	1	29	14.36	27	13.64	56	14.00
	2	72	35.64	49	24.75	121	30.25
	≥3	61	30.20	31	15.66	92	23.00
Income	<1500	28	13.86	194	97.98	222	55.50
	1501–3000	90	44.55	4	2.02	94	23.50
	>3000	84	41.58	0	0.00	84	21.00
Job	Currently employees	79	39.11	16	8.08	95	23.75
	Self-employment	0	0.00	105	53.03	105	26.25
	Retired	44	21.78	27	13.64	71	17.75
	Never worked	1	0.50	0	0.00	1	0.25
	Housewife	78	38.61	50	25.25	128	32.00
Number of Households	Alone	47	23.27			47	23.27
	2 Persons	79	39.11			79	39.11
	≥3 Persons	76	37.62			76	37.62
Smoking Non-smoker Quit smoking		67	28.51	76	38.38	110	27.50
Chronic disease	yes	142	60.43	89	44.95	231	57.75
	no	26	11.06	33	16.67	59	14.75
Current complaint	yes	162	80.20	129	**42.42**	291	72.75
	no	40	19.80	69	**57.58**	109	27.25

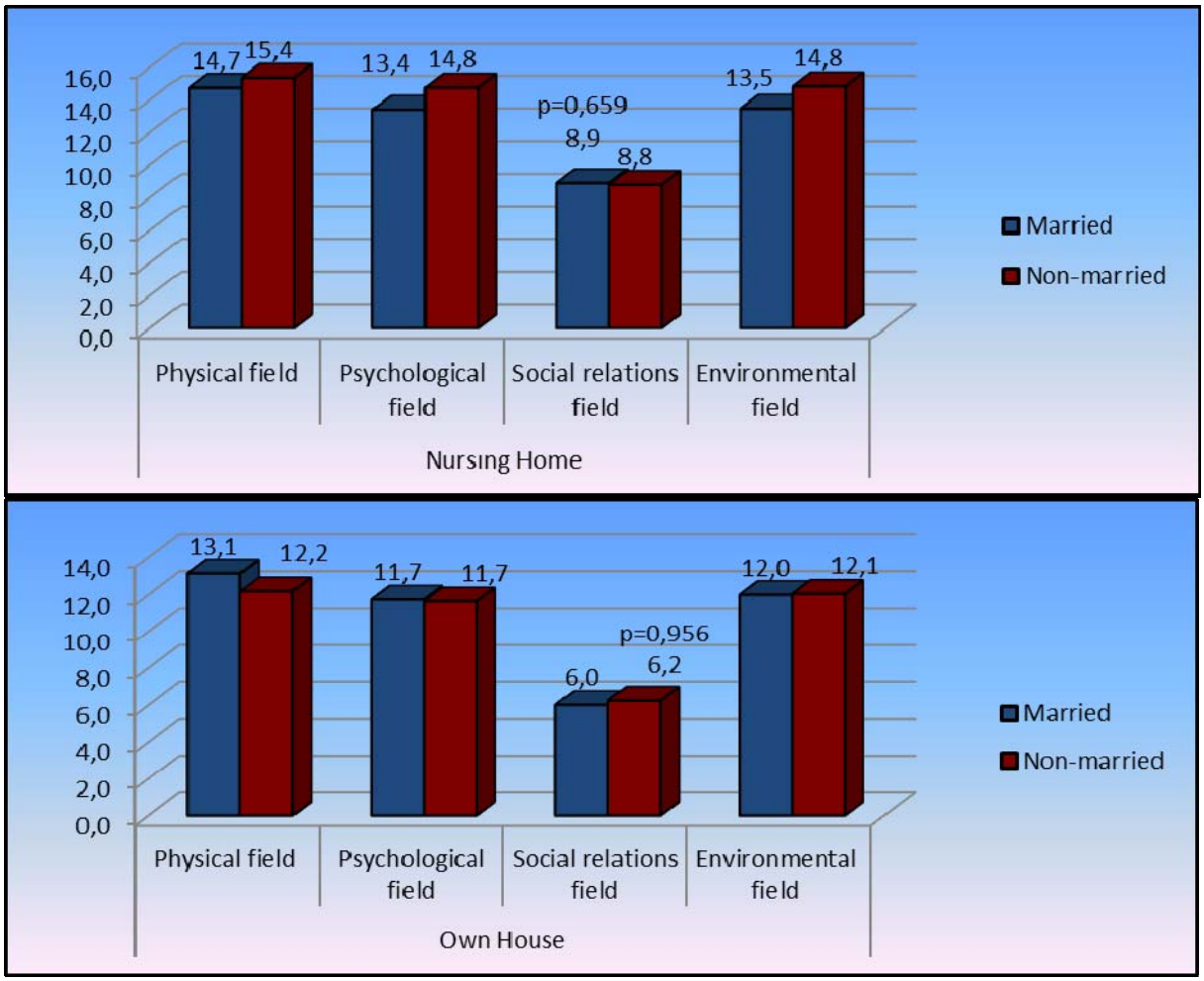

Figure-1 Evaluation of Life Quality Field Points by Marital Status

Table 2. Evaluation of Quality of Life Points by Age Groups

		Scores by Age Groups [median(min-max)]		
		65-74	**75-84**	**85 ≤**
Physical field	**Own House**	15.44 (6.91-20.00)	14.91 (6.92-20.00)	12.89 (11.43-15.43)
	Nursing Home	13.71 (4.12-20.00)	12.56 (4.00-16.63)	10.32 (5.74-16.00)
	p	<0.001	<0.001	0.007
Psychological field	**Own House**	14.71 (6.72-20.00)	15.31 (8.69-19.32)	12.67 (12.00-17.31)
	Nursing Home	12.00 (5.41-8.72)	12.71 (5.33-18.00)	11.32 (6.00-18.00)
	p	<0.001	<0.001	0.067
Social relations field	**Own House**	9.00 (3.00-14.00)	9.00 (3.00-14.00)	9.00 (5.00-11.00)
	Nursing Home	7.00 (3.00-11.00)	5.00 (3.00-9.00)	7.00 (3.00-12.00)
	p	<0.001	<0.001	0.023
Environmental field	**Own House**	14.71 (9.29-18.21)	15.61 (8.90-17.82)	14.71 (12.41-17.31)
	Nursing Home	12.00 (7.72-16.00)	12.00 (8.00-16.00)	12.41 (7.59-15.61)
	p	<0.001	<0.001	0.002

Table 3. Evaluation of Life Quality Field Points by Gender

		Scores by Gender [Median(min-max)]	
		Male	**Female**
Physical field	**Own House**	15.41 (8.60-20.00)	14.89 (6.79-20.00)
	Nursing Home	14.28 (4.11-20.00)	10.61 (4.00-17.7)
	p	<0.001	<0.001
Psychological field	**Own House**	15.32 (6.68-20.00)	14.72 (8.00-20.00)
	Nursing Home	12.71 (5.39-18.70)	10.32 (5.32-17.30)
	p	<0.001	<0.001
Social relations field	**Own House**	9.00 (3.00-14.00)	9.0 (3.00-14.00)
	Nursing Home	7.00 (3.12-12.00)	5.00 (3.00-9.00)
	p	<0.001	<0.001
Environmental field	**Own House**	15.11 (9.79-18.21)	15.10 (8.89-17.83)
	Nursing Home	12.42 (7.62-16.00)	11.61 (8.00-15.13)
	p	<0.001	<0.001

We observed that physical (p<0.001) and psychological (p<0.001) scores were significantly lower in patients with chronic illness than in those without a chronic illness in senior centres; however, social relations and environmental field scores did not differ significantly (P =0.05). Based on the number of households in patients living in their own homes, no significant difference was noted in the score of physical, psychological and social relations, whereas living with family statistically exhibited no impact on these fields (P > 0.05). Those living alone exhibited a significantly higher environmental score than those living with ≥3 households(p<0.007). No significant difference was noted in physical, psychological, social and environmental field scores based on the smoking status of those living in their homes and those living in senior centres (p>0.05).

Furthermore, the physical, psychological, social and environmental field scores of those living in their own home were significantly higher than those living in senior centres when compared according to where they lived (p<0.001) (Table 4).

Table 4. Evaluation of the Quality of Life Field Points Regarding to the Living Place

	Own House Mean ± sd	**Nursing home Mean ± sd**	**p**
Physical field	23.46 ± 4.63	19.90 ± 3.83	<0.001
Psychological field	20.80 ± 3.56	17.50 ± 3.25	<0.001
Social relations field	8.77 ± 2.10	6.34 ± 3.95	<0.001
Environmental field	31.08 ± 5.45	24.79 ± 4.10	<0.001

Discussion

The quality of life of aged people is affected by multiple social factors. Consistent with other studies, the majority of our study cohort living in their home constituted females, whiles the majority of those living in senior centres were males.[3,4,10] Because males experience more difficulties in living alone and are less efficient than females in household chores and self-care issues. Moreover, because most males work and elderly caregivers at home are mostly females, which might be another reason for the low rate of males staying at home.

As, there is different understanding of old age, quality of life is different between men and women; higher scores in men. Women tend to feel much more uncomfortable with old age and understand it as a problem and limitations of her life which makes them to feel fear.[11-15]

Aydın et al. reported that in the 65–74 years age group, being primary school and higher educated, having health insurance, having a monthly income, currently working and no chronic illness are primary significant variables in having 'high' quality of life.[16]

In most studies, as the age increases, the quality of life scores decrease and change according to sex.[16,17] This study established no correlation between age and quality of life, except for the decline in the physical field score of individuals aged >85 years. The physiological and physical changes occurring during the old age restrict or block individuals' activities, making them feel unhappy; in particular, this adversely affects the quality of life for individuals regarding health. Consistent with our study, the average score of the total quality of life was higher in males than females in studies investigating various quality of life assessment scales.[10,16] Consequently, females should be at the top of the list in the efforts to improve the quality of life.

In a study conducted in Ankara, the quality of life scores of those who were married, with a university or higher education, employed at any job and whose households had a monthly income of >4561 TL were statistically found to be significantly higher ($P < 0.05$).[18] Being married or single exerts more impact on the psychological field than being widowed. Overall, the average scores in the dimensions and quality of life fields were reported higher in married patients.[19] Typically, the quality of life and all its sub-fields are positively affected when a person with whom a patient lived with bond closely and the relationship between the patient and that person gets more intensive. In addition, living of elderly individuals with their spouses and children positively affects their quality of life and all their sub-fields, and living with family and children enhances the quality of life. In this study, psychological and environmental scores were lower in married people living in their home than those who were not married, and scores for physical and social relationships did not differ markedly. The fact that married individuals are restricted in their social areas and their responsibilities to the family increase over time could correlate with a negative reflection on the psychological and environmental fields. Living with a crowded family and feeling trust among family members, which are the most crucial factor in defeating the fear of loneliness and feelings of 'useless', especially aged people, enhance the quality of life.

A study conducted in senior centres reported that almost half of the participants did not know how to read or write.[10] In other studies, low level of education makes it difficult to inform individuals and improve their quality of life, which is thought to

affect the quality of life negatively.[16,20] This study determined that as the level of education increased, the quality of life improved in physical, psychological, environmental and social fields in those living in their own homes; one of the reasons for this situation is that the level of education directly correlates with the level of income and profession of individuals and directly affects their quality of life. People who are educated at a lower level or who are non-literate can be considered to be prematurely worn by working at jobs that require more physical strength at an early age, adversely affecting their quality of life. Conversely, for an aged person, being educated could positively impact making friends, participating in daily activities, decision making, happiness about the past, hopes for the future and experiencing love and friendship feelings.[21] In this study, social and environmental scores of these patients did not differ markedly, and the average scores of physical and psychological scores were higher in patients without continuous drug use and chronic disease; this led us to think that diseases causing the long-term drug usage adversely affected the quality of life of patients not only psychologically but also physically, suggesting that patients should receive both psychological and physical health services. Determining the factors that restrict the realisation of daily life activities is vital to enhance the quality of life. These practices should be combined with rehabilitation programmes to augment the psychological and physical health.

Although no comprehensive data explored the effect of the smoking status of aged people on the quality of life in our country, a study reported that smoking did not affect the quality of life of aged persons.[22] In this study, 38.4% of patients living in senior centres were current smokers, and 16.7% had quit; 16.8% of those living in their home were current smokers and 12.9% had quit. These findings revealed that the rate of smoking in aged people living in senior centres is higher than the elderly population in the society. We established that quality of life does not affect the smoking of aged people living in their homes and senior centres. However, smoking is the riskiest behaviours regarding health in every phase of life. Another study conducted in senior centres reported that about one-third of aged persons (31.9%) were nicotine addicts, which lowered their quality of life.[10] Hence, the treatment of nicotine addicts should be prioritised in senior centres to enhance the quality of life.

In this study, the quality of life of those living in their homes was markedly higher in all sub-fields than the rest, which could be attributed to the fact that those who live in their own home undertake daily tasks on their own and become closer to their families.

In this study, corroborating different survey studies, the quality of life of the elderly group living at home was adversely affected by advanced age, marital status, low educational level, low-income level and bad cognitive level, although gender, occupation and smoking were ineffective on the quality of life and the marital status, educational status, number of children and smoking status did not correlate with the quality of life of those living in senior centres; however, the quality of life score was markedly lower in females and individuals with chronic illnesses.[21-23]

İlhan et al. reported that only the social relations score average was lower in the quality of life subscales in those living in senior centres.[24] The reason for changing the quality of life according to sex and chronic illness in senior centres could be that individuals

living here do not get adequate support for chronic diseases management and follow-up.

International research based on 22 countries, including Turkey, has revealed that in aged people, age, gender and health status relatively affect the quality of life, and being energetic, having improved sensory abilities and having no pain in logistic regressions exert marked impact on the quality of life .[25] Khader et al. reported that the quality of life of those living in senior centres was low, similar to our study.[10,26] These findings highlight a need to increase the quality of life of people living in senior centres. Furthermore, advanced age, being a woman, being illiterate, not visiting relatives, having nicotine addiction and chronic illness are effective factors in the low quality of life.[21]

This study reveals that the advanced age, marital status, education level, increase in the income level and having children affect the quality of life in individuals living in their own home. As age advances, the death of one of the spouses, separation of a family member from home or losing job owing to the loss of physical function and a reduction in the income level at the same time adversely affects the quality of life of aged persons. Thus, creating common living spaces where individuals can escape from their loneliness and giving them job opportunities, which are less exhausting, could help those people participate more in social life and help to enhance their quality of life by making them feel better because they feel more productive. In aged people living in senior centres, advanced age, sex and chronic illness affect the quality of life. Here, services that increase their quality of life should be provided by making possible state-supported special programmes and periodical health examinations, preventive services, physical environment improvements, basic needs for life and psychological support.

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