

Comparison of Satisfaction Levels Regarding Living Conditions, Depression and Dependency Among Two Elderly Groups, One in Nursing Home and the Other At Home: A Community-Based, Cross-Sectional Analytic Study

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Abstract

The aim of this study is to determine the status of dependence, the prevalence of depression and the factors related to satisfaction with living conditions among two groups of elderly, those living in a nursing home and in their own home. A modified version of the Katz daily living scale and the Geriatric Depression were used. The nursing home-cared elderly were older ($p < 0.001$). Elderly women are more likely to be able to live alone and the elders without children were more likely to live in the nursing home ($p < 0.05$). Heating, health care and security conditions were the areas that elderly in the nursing home reported higher satisfaction scores ($p < 0.05$). Elders in their own homes feel better. The overall depression prevalence among both groups was 41.8%, 46% at nursing home and 40% at home ($p = 0.342$). Home care services seem to be the appropriate solution of the caring problem of elderly.

Key words: Health Services for the Aged ; Depression ; Personal Satisfaction

Introduction

Over the last half of the 20th century, the average lifespan has increased by 20 years, bringing the global life expectancy to its current level of 66 years. The demographic transition characterized by low birth rates as well as low death rates spurred the growth in the number and proportion of older people.¹ It is expected that the numbers of the older population will reach 800 million (10 percent of total population) by the year 2025. Two thirds of this increase will be in the world's developing countries.²

The first population census in Turkey was carried out in 1927. Beginning in 1935, censuses were carried out regularly, in years ending with "0" and "5". However, starting in 1990, the Turkish government legislated that census counts would be undertaken only in years ending with "0" by a law; thus the fourteenth Population Census carried out on 22nd October 2000 contains the most recent census data in Turkey. It should be noted that important changes have occurred in annual population growth rates in the various age categories. Between 1990-2000 years, the population between the ages of 0 and 14 years remained constant, as was the 15-64 years age group. However, there has been a significant increase in the group aged 65 years or more. In the year, 2000, 5.7% of the Turkish population was above 65 years old. Published projections estimate that the elderly comprise 5.9 % of the population in 2006, and that by 2020 the figure will be 7.75%.³ Increase in elderly population in Turkey is primarily due to the increase of life expectation at birth. The life expectancy for those born today is 69.1 for males and 74.0 for females, and 72.7 years for men and women combined. By year 2020, these figures are expected to be 71.0, 76.1 and 73.5, respectively.⁴

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As the overall number of elderly people increases, there is a corresponding rise in the number of older persons with disabilities. Such disabilities may be social, physical, mental or psychological.⁵ In fact, over 60% of adults with functional impairments due to chronic health problems are aged 65 and over.^{6,7} Physically impaired older people tend to become socially isolated, which may then result in exacerbation of medical problems, functional deficits and mental health problems, particularly depression. Since depression is common and often complicated by comorbid physical illness and high levels of functional impairment⁸⁻¹¹, the impact of late-life depression on primary care is a relevant area for research.¹² Health services in Turkey to date, especially in primary care, have focused mainly on maternal-child health, thus health care workers are not acutely aware of the needs of the elderly. As the numbers of elderly increase in the Turkish population, health care service must of necessity change in order to be prepared to meet the special health care needs of the elderly.¹³

In the 1950s, fewer than 30 percent of the world's population lived in cities, and the same was true in Turkey. By the year 2000, more than 40 percent resided in an urban area, where the ratio is more than 65% for Turkey.³ Urbanization converts large families to core families and the number of the elderly living alone has increased. The elderly tend to live alone or with their spouses either in their own homes or at nursing homes, and their needs and risks changes according to their living conditions. Thus, a detailed assessment is needed prior to initiating any program for the elderly, especially at the local level, so that specific issues can be addressed.¹⁴ The aim of this study is to determine the status of dependence, the prevalence of depression and the factors related to satisfaction with living conditions among two groups of elderly, those living in a governmental nursing home and the other in their own home.

Methods

The study design was a community-based, cross-sectional analytic study. The study protocol was approved by the Directory of Health and Directory of Social Services, in Aydin and was performed in the service area of the Third Central Health Center in Aydin, a city in western Turkey.

Study groups: For purposes of the current study, individuals aged 65 and above are considered as elderly. There were two groups of elderly in the current study; all were living in the same region of western Turkey. The first group consisted of elderly individuals living in a governmental nursing home, owned by General Directorate of Social Service and the other elderly individuals were living in their own homes. The aim of the study was explained in detail to the elderly; participation was strictly voluntary, and those participating did not have any diagnosis of serious mental health problem (e.g.: mental retardation, dementia, psychological disorders or coma) that would limit or change their responses for the questionnaire section of the study. When this study was conducted, there were 120 elderly living in the area nursing home and 1398 elderly living in their homes in the Health Center Region. Although, we would have liked to include all elderly in the nursing home, 33 (27.5%) elderly could not be reached in the nursing home, due to communication problems and absence during the study period. For the group living in their own home, we attempted to interview 240 individuals, two for every one in the nursing home. A systematic sampling procedure was utilized to determine study participants for this group. However, researchers were able to reach 210 (87.5%) of the elderly at home, due to similar reasons for nursing home subject non-participation. Thus, for the final tally, the overall study group included a total of 297 elderly, 87 at the nursing home and 210 at their home.

Questionnaire: A questionnaire including sections for demographic characteristics, satisfaction with living conditions, assessment of dependence and depression was administered utilizing a face to face interview format.

Assessment of Dependence: Self-care activities, such as bathing, dressing or eating, were ascertained using a modified version of the Katz activities of daily living scale. This scale asked patients whether they could currently complete each activity of daily living without the assistance of another person.¹⁵

Assessment of Depression: Depression was measured using the Geriatric Depression Scale (GDS).¹⁶ The GDS is a 30-item questionnaire, specifically developed for the elderly. The instrument is reliable and has been validated in multiple settings and has also been recommended for use in the nursing home population.¹⁷ In the current study, Geriatric Depression Scale Turkish Form (GDS-TF) was used. Validation of GDS-TF was previously performed by Ertan et al. (1997) and Sağduyu et al (1997).^{18,19} In the current study, the form of Sağduyu et al. was used with a cut off score of 14, therefore a score >13/14 was considered to be indicative of clinically relevant depression, with a sensitivity of 0.90 and specificity of 0.97.¹⁹

Statistical analysis : The descriptive data is reported as mean \pm standard deviation (SD) and percentage. The chi-squared test and Student t-test were used for the analytic assessment. Differences were considered to be statistically significant when the p value obtained was less than 0.05.

Results

There were 166 (55.9%) women and 131 (44.1%) men who participated in this study. The mean age overall was 71.55 ± 6.74 , 71.55 ± 7.22 for women and 71.55 ± 6.14 for men. Of these elderly people, 210 (70.7%) were living at home and 87 (29.3%) were living at nursing home.

Main characteristics of elderly people at nursing home

There were 40 (46.0%) women and 47 (54.0%) men at the nursing home. Four out five elderly (79.3%, n=69) moved into the nursing home of their own volition; 22 (25.3%) of them was alone at the first appeal and 58 (66.7%) of them was with their children, relatives or friends and 7 (2.4%) was perched by others. Nearly half of those currently living in the nursing home (47.1%) had preconceived ideas about life in a nursing home, where others had none. There were varying reasons for living in a nursing home: 31 (35.6%) said that they wanted to stop/avoid difficulties for their children/relatives; 22 (25.3%) had nobody to take care of them; 21 (24.1%) had relatives who did not take care of him/her. Only two (2.3%) study subjects stated that they would rather be with others. Most (82.8%) of the nursing home residents interviewed that they would prefer to be living with their relatives/friends who are able to take care of them, and a few (13.8%) said that they would prefer to live in a different nursing home.

Most (70.1%) had been living in the nursing home for less than three years; 26.4% lived there between 3 and 10 years, and only 3.4% were there for more than 10 years. A majority (n=80, 92.0%) had no significant income. Living arrangements within the nursing home included: 18 (20.7%) in single rooms, 64 (73.6%) in double and 5 (5.7%) living in other types of room arrangements. Most (43 subjects or 62.3%) elderly lived at the home without no noted difficulties or complaints. The most frequently mentioned complaint was too much noise (n=12, 17.4%) (including noise due to snoring, different hours of bathing, sleeping and television watching). Most (66.7%) felt that they should solve the problem by speaking to the other residents themselves, and would only involve management or administration if after multiple attempts, the problem wasn't solved.

Main characteristics of elderly people at home

Of those interviewed, there were 126 (60.0%) women and 84 (40.0%) men living at home. Most (84.8%) of them owned their home; 8.6% lived with a relative and 5.7% lived in a rental house. A majority lived with their spouses (52.9%), 17.1% with their spouses and children, and 12.9% only with children. Most had their own room and contributed the decision of the family, 87.1% and 88.1%, respectively. There were 28 (13.3%) elderly living alone. Most of them (n=199, 94.8%) had at least some income.

Comparison of elderly people living at home and at nursing home

Socio-demographic comparison data for elderly people living in the nursing home vs. living at home is given in Table 1 and data comparing satisfaction with living conditions in Table 2. Comparison of elderly people living at home and at nursing home in terms of dependency is given at Table 3.

Table 1: Comparison of socio-demographic characteristics among elderly people living at home and at nursing home

SOCIO-DEMOGRAPHIC CHARACTERISTICS		At home N (%*) / Mean (SD)	Nursing home N (%*) / Mean (SD)	χ^2 / t	p
Sex					
	Female	126(75.9)	40(24.1)	4.907	0.027
	Male	84(64.1)	47(35.9)		
Age		69.48(5.33)	76.52(7.29)	-9.256	<0.001
Longest residence					
	Rural	39(76.5)	12(23.5)	0.988	0.320
	Semi-urban/Urban	171(69.5)	75(30.5)		
Marital status					
	Married	149(97.4)	4(2.6)	108.44	<0.001
	Others (Single, divorced, widow)	61(42.4)	83(57.6)		
Education					
	Primary school and less	182 (71.9)	71 (28.1)	1.247	0.264
	Secondary/High school	28 (63.6)	16 (36.4)		
Social security					
	Absent	26 (61.9)	16 (38.1)	36.676	<0.001
	Greencard*	2 (11.1)	16 (88.9)		
	Others	182 (76.8)	55 (23.2)		
Occupation					
	Housewife/Unemployed	111 (52.9)	33 (37.9)	19,797	<0.001
	Paid employed	79 (37,6)	28 (32.2)		
	Self employed	20(9,5)	26 (29.9)		
Having children					
	One or more	208(77.3)	61(22.7)	60.306	<0.001
	None	2(7.1)	26(92.9)		

*A specific social security supplied by the government for social group at the lowest economic level.

Table 2: Comparison of satisfaction status due to living conditions among elderly people living at home and at nursing home

SATISFACTION LEVEL WITH LIVING CONDITIONS	WITH	At home N (%*)	Nursing home N (%*)	χ^2	p
Toilet	High	189(70,0)	81(30,0)	0,759	0,684
	Moderate	15(78,9)	4 (21,1)		
	Low	6(75,0)	2 (25,0)		
Bathing	High	185 (65,5)	81 (30,5)	1,763	0,414
	Moderate	19 (79,2)	5 (20,8)		
	Low	6 (85,7)	1(14,31)		
Heating	High	171 (67,6)	82 (32,4)	8.161	0.017
	Moderate	28 (90,3)	3 (9,7)		
	Low	11 (84,6)	2(15,42)		
Health care	High	169 (66,8)	84 (33,2)	12.597	<0.001
	Moderate	41 (93,2)	3(6,8)		
	Low	-	-		
Security	High	170 (67,5)	82 (32,5)	8,465	0.02
	Moderate	40 (88,9)	5(11,1)		
	Low	-	-		
Spare times activities/hobbies	High	170 (69,1)	76 (30,9)	1.774	0,121
	Moderate	40 (78,4)	11(21,6)		
	Low	-	-		

Table 3: Comparison of elderly people living at home and at nursing home for dependency

DEPENDENCY STATUS		At home N (%)	Nursing home N (%)	χ^2	P
Hygiene	High	15(27.)	40(46.0)	61.781	<0.001
	Moderate	30(76.9)	9(23.1)		
	Low	165(81.3)	38(18.7)		
Transportation	High	24(49.0)	25(51.0)	13.909	0.004
	Moderate	35(79.5)	9(20.5)		
	Low	151(74.0)	53(26.0)		
Shopping	High	23(35.9)	41(64.1)	52.446	0.001
	Moderate	37(94.9)	2(5.1)		
	Low	150(77.3)	44(22.7)		
Cooking	High	16(23.5)	52(76.5)	98.884	<0.001
	Moderate	13(65.0)	7(35.0)		
	Low	181(86.6)	28(13.4)		
Bathing	High	11(33.3)	22(66.7)	32.792	<0.001
	Moderate	9(47.4)	10(52.6)		
	Low	190(77.6)	55(22.4)		
Clothing	High	8(33.3)	16(66.7)	22.332	<0.001
	Moderate	8(50.0)	8(50.0)		
	Low	194(75.5)	63(24.5)		
Toilet	High	6(42.98)	8(57.1)	7.690	0.006
	Moderate	7(53.8)	6(42.6)		
	Low	197(73.0)	73(27.0)		
Transfer	High	7(31.8)	15(68.2)	17.608	0.000
	Moderate	15(79.9)	4(21.1)		
	Low	188(73.4)	68(26.6)		
Continence	High	8(44.4)	10(55.6)	8.647	0.004
	Moderate	7(53.8)	6(46.2)		
	Low	195(73.3)	71(26.7)		
Eating	High	8(44.4)	10(55.6)	6.511	0.03
	Moderate	7(77.8)	2(22.2)		
	Low	195(72.2)	75(27.8)		

The overall depression prevalence among both groups was 41.8%, 46% at nursing home and 40% at home ($p=0.342$). In both study groups, no significant relationship was observed between depression and age ($p=0.932$) ($p=0.440$ for at home group and $p=0.808$ in nursing home group), although the prevalence was slightly increased in those aged 85 and over: 44.0% in 65-74 y, 32.4% in 75-84 y and 56.3% in 85 years or over.

Discussion

Results from this study revealed that the home-cared elderly were slightly younger than the nursing home group, similar to studies performed in other countries.^{20,22} Additionally, most of the men living in a family environment were married, whereas women in both environments were more likely to be widows. This could lead one to conclude that elderly women are more likely to be able to live alone.^{23,24} In another Turkish study, living alone, especially widows, and having no children were found to be the important factors in the decision to live in a nursing home.²⁵ Similarly, in the current study, fewer elderly with children were found to be living in a nursing home. In Turkey, families traditionally have one or more children and the children care for their parents as they age. Nursing homes may be the best option for senior citizens without children, especially for men.

Previously, when able, families always seemed to include elders in their living situations, especially in rural areas. However, due to urbanization, larger extended families have evolved into core families; which, in turn has led to more elderly living in nursing homes. In the current study, the urban-rural difference was not observed.

In the current study, elders without social security were more frequently observed to be living in their home, even if there were existing daily problems such as heating expenses and security issues. People with social security income are able to cover the expenses of the nursing home and may additionally pay for a single, more comfortable room at a nursing home facility. However, if an older person has no social security, he/she needs to be placed by a governmental authority, and might not even be aware that such a placement is possible. Study participants from both groups stated that they would have been living in their home if they were able to do so. In the current study, the elders of both groups declared both that they wanted to live at home or with their relatives/friends who could help care for them for as long as possible. Comparison of elderly people living at home and at nursing home facilities in terms of their satisfaction with living conditions is quite important in order to identify difficulties in both segments of the population. In the current study, heating, health care and security conditions were areas that elderly in the nursing home significantly reported higher satisfaction scores ($p<0.05$), as found by Ozer et al.²³

Many studies have shown that elderly living in the nursing home have more physical disabilities affecting activities of daily living such as bathing and walking.²⁰ The same phenomenon was observed in this study. The ten dependency categories: hygiene, transportation, shopping, cooking, bathing, clotting, toilet, transfer, continence, eating were significantly common with higher scores in the nursing home group. In the study performed by Al-Nasir et al, disabilities affecting bathing were higher among the home-cared elderly than the institutionalized and the same pattern was found for walking.²⁰ The percentage of elderly who were incontinent was higher in the institutionalized group. It is usually unrealistic to expect good results in functional independence, cognitive performance and mobility level in older people at the age of 65 years or above. In a Turkish study, it was found that the individuals who were 75 years old and older had higher dependency levels than younger. The individuals who were 75 years old or older had spent most of their time at home and needed help to go outside.²⁶

Depression that can result from suffering from chronic illness, functional disability and deficiencies in socioeconomic life, as well as atypical disease presentation is an important mood disorder in the elderly.²⁷ The prevalence of depression was relatively high in both groups in the current study; 46% for those in nursing home and 40%, for those living at home. Similar results were observed by Şahin et al, 37.2% in the elderly at home and 48.1% in elderly at nursing home.²⁸ In another Turkish study by Gülseren et al, of two groups of elderly, from nursing home and from own homes, matched for age and sex, similar depression prevalence among the two groups were observed, at 6.7% and 5.0% respectively.²⁵ However, higher depression prevalence was found in elderly living at nursing home, 68.9% for nursing home and 27.8% for at home group in results from the study by Aksüllü et al.²⁹ There are also studies performed separately in community dwelling elderly groups and at nursing homes in the literature.

The depression prevalence of elderly in a nursing home in Adana, a southern city of Turkey, was found to be 26.1%. and 35.9% of nursing home residents who participated in a study in Manisa a western city of Turkey were found to be depressed³⁰, as were 36.3% in the city of Izmir.³¹ Senior citizens with no hobbies, and those not visiting or being visited by relatives or friends were found to be more prone to depression. Physical comfort, social security, chronic diseases, marital status, length of time in residence in the nursing home were not found to be significant factors in the occurrence depression among elders living in nursing homes.³² In three different Asian countries, about 17.2–33.8% of community-dwelling elderly subjects were found to have depression. However, they were assessed by GDS-15 using a cutoff of 5/6³³, which differs from the cutoff used for the current study. On the other hand, depression is important in the primary care practice of elderly. Depression seems to play a more important role in determining need for health care services in the elderly patients as compared to the non-elderly. In contrast to most other predictors of high use of services, like chronic physical disease and social difficulties, depression is a potentially modifiable and preventable condition due to availability of effective pharmacological and psychosocial interventions.³⁴ Since, as observed in the current study, depression is very common in both elderly groups, it should be an important area of study for the Turkish medical system that is expanding elderly health care services.

The most significant finding of the current study is that elders who live in their own homes feel better and generally report feelings of positive well being. Institutionalization which inevitably leads to disengagement from social or other activities for elderly residents³⁵, whereas homes are safe havens where people put down roots, feel a sense of belonging, and ultimately experience “place identity”, or oneness with the home.³⁶

Even though it is reported that five nursing home places per 100 citizens over 65 are government regulated in the European Community³⁷, socio-economical data indicates that such an organization of nursing homes and geriatric care facilities is not the most culturally relevant solution for Turkey. The cultural structure in Turkey leans more towards caring for the elderly at home within large families even at the current time. In the light of all these and with the findings of the current study, home care services seem to be the best solution of the caring problem of elderly in Turkey.

Turkey faces the challenge of responding to the health and social service needs of many older Turkish people. Maintaining independence and good health in the senior years should be the goals of the health and human service providers in Turkey. Aging issues are seen as public health issues, and the value of prevention is understood. There is a strong need for multidisciplinary teams and a new approach for the primary care givers is needed as delineated in this study.

References

- <http://www.unu.org/esa/socdev/ageing/ageing/agewpop.htm>. Cited May 11, 2006.
- The World Health Report 1998 Life in the 21st century A vision for all. WHO, Geneva, P:2. , <http://www.who.int/whr/1998/en/>, Cited May 11, 2006.
- Population Data. <http://www.die.gov.tr>. Cited March 2, 2006.
- Population Data. <http://www.tuik.gov.tr/veri/Bilgi.do>. Cited October 2, 2006.
- Al-Nasir F, Al-Haddad MK. Levels of disability among the elderly in institutionalized and home-based care in Bahrain. *East Mediterr Health J* 1999, 5(2): 247-254.
- Freedman MA, Berk, BZ. Family structure and the risk of nursing home admission. *J Gerontol B Psychol Sci Soc Sci* 1996, 51(2): 61-69.
- Mathieson KM., Kronenfeld JJ, Keith VM. Maintaining Functional Independence in Elderly Adults: The Roles of Health Status and Financial Resources in Predicting Home Modifications and Use of Mobility Equipment. *Gerontologist* 2002, 42(1): 24-31.
- Murphy E. The prognosis of depression in old age. *Br J Psychiatry* 1983, 142: 1: 111-119.
- Burns A, Zaudig M. Mild cognitive impairment in older people. *Lancet* 2002, 360 (9349): 1963–1965.
- Berardi D, Menchetti M, De Ronchi D, et al. Late-life depression in primary care: a nationwide Italian epidemiological survey. *J Am Geriatr Soc* 2002, 50(1): 77 –83.
- Alexopoulos GS, Vrontou C, Kakuma T, Meyers, et al. Disability in geriatric depression. *Am J Psychiatry* 1996, 153 (7): 877–885.

- Menchetti M, Cevenini N, De Ronchi D, et al. Depression and frequent attendance in elderly primary care patients. *Gen Hosp Psychiatry* 2006, 28(2): 119–124.
- Dirik A Cavlak U, Akdag B: Identifying the relationship among mental status, functional independence and mobility level in Turkish institutionalized elderly gender differences. [Arch Gerontol Geriatr](#) 2006, 42(3): 339–350.
- Stuck AE, Walther JM, Nikolaus T, et al. Risk factors for functional status decline in community-living elderly people: a systematic literature review. *Soc Sci Med* 1999, 48(4): 445-469.
- Katz S, Apkom CA. A measure of primary sociobiological functions. *Int J Health Serv* 1976, 6(3): 493–508.
- Yesavage JA: Geriatric Depression Scale. *Psychopharmacol Bull* 1988, 24(4): 709–711.
- McGivney SA, Mulvihill M, Taylor B. Validating the GDS depression screen in the nursing home. *J Am Geriatr Soc* 1994, 42(5): 490– 492.
- Ertan T, Eker E, Şar V. Geriatrik depresyon ölçeğinin Türk yaşlı nüfusunda geçerlilik ve güvenilirliği. *Nöropsikiyatri Arşivi* 1997, 34(2): 62-71.
- Sağduyu A. Yaşlılar İçin Depresyon Ölçeği: Hamilton Depresyon Ölçeği ile karşılaştırmalı güvenilirlik ve geçerlilik Çalışması. *Tr Psikiyatri Derg* 1997, 8(1):3-8.
- Al-Nasir F, Al-Haddad MK. Levels of disability among the elderly in institutionalized and home-based care in Bahrain. *East Mediterr Health J* 1999, 5(2): 247-254.
- Çıtak Akbulut G, Kurt Ü, Ersoy G. Nutritional Status, Physical Activity Levels and Health Status of the Elderly Living at Nursing Home and at Home. *ZSYOD* 2005, 1(2): 48-59.
- Maral I, Aslan S, İlhan MN, et al. Depresyon yaygınlığı ve risk etmenleri: Huzurevinde ve Evde Yaşayan Yaşlılarda Karşılaştırmalı Bir Çalışma. *Tr Psikiyatri Derg* 2001, 12(4): 251-259.
- Özer M. A Study on The Life Satisfaction of Elderly Individuals Living In Family Environment And Nursing Homes. *Tr J Geriatrics* 2004, 7(1): 33-36.
- Lazarus RS, DeLongis A. Psychological stress and coping in aging. *Am Psychol* 1983, 38(3): 245–254.
- Gülseren Ş, Koçyiğit H, Erol A, , et al. Cognitive Functions, Mental Disorders, Level of Depressive Symptoms and Quality of Life in Elderly Residents of A Nursing Home. *Tr J Geriatrics* 2000, 3(4): 133-140.
- Turhanoğlu AD, Saka G, Karabulut Z, , et al. Disability and Chronic Disease Prevalence in The Individuals Aged 55 Years or Older in Diyarbakır. *Tr J Geriatrics* 2000, 3(4):146-150.
- Cankurtaran M, Halil M, Yavuz BB, et al. Depression and concomitant diseases in a Turkish geriatric outpatient setting. *Arch Gerontol Geriatr* 2005, 40(3): 307–315.
- Şahin EM, Yalçın BM: Comparing The Incidens of Depression at The Elderly Living in Nursing Home or at Their Own Homes. *Tr J Geriatrics* 2003, 6(1): 10-13.
- Aksüllü N, Doğan S: Huzurevinde ve evde yaşayan yaşlılarda algılanan sosyal destek etkenleri ile depresyon arasındaki ilişki. *Anadolu Psikiyatri Derg* 2004, 5(2): 76-84.
- Demet MM, Taşkın OE, Deniz F, , et al. Manisa Huzurevlerinde Kalan Yaşlılarda Depresyon Belirtilerinin Yaygınlığı ve İlişkili Risk Etkenleri *Tr Psikiyatri Derg* 2002, 13(4): 290-299.
- Ulusel B, Soyer A, Uçku R: Dependence in Daily Living Activities Among Community Dwelling Elderly: Prevalence and Risk Factors. *Tr J Geriatrics* 2004, 7 (4): 199-205.
- Sütölk Z, Demirhindi H, Savaş N, Akbaba M: Adana Huzurevinde kalan yaşlılarda depresyon sıklığı ve nedenleri. *Tr J Geriatrics* 2004, 7(3): 148-151.
- Wada T, Ishine M, Sakagami T, , et al. Depression in Japanese community-dwelling elderly-prevalence and association with ADL and QOL. *Arch Gerontol Geriatr* 2004, 39(1): 15–23.
- Menchetti M, Cevenini N, De Ronchi D, , et al. Depression and frequent attendance in elderly primary care patients. *Genl Hosp Psychiatry* 2006, 28(2): 119– 124.
- Mor V, Branco K, Fleishman J, , et al. The Structure of Social Engagement among nursing home residents. *J Gerontol B Psychol Sci Soc Sci* 1995, 50: 1-8.
- Proshansky, HM. The city and self-identity. *Environ Behav* 1978, 10 (2): 147–169.
- Fernandez-Ballesteros R, Montorio I, de Troconiz MIF. Personal and environmental relationships among the elderly living in residential settings. *Arc Gerontol Geriatr* 1998, 26: 185–198