

## Original Article

## The Determination of Functional Independence and Quality of Life of Older Adults in a Nursing Home

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### Abstract

**Background:** In the population aging process, age-related physiological changes bring with them a reduction in functional capabilities. Declining functional capacities bring about problems with self-care, activities of daily life and psychosocial problems.

**Aims:** The aim of this descriptive study was to determine the functional independence and quality of life of the aged 65 and over of an older adults in nursing home.

**Methodology:** The sample was consisted of 81 older adults (over 65 years old) living in a nursing homes. The Functional Autonomy Measurement System (SMAF) and SF-36 quality of life scale were used in data collection.

**Results:** A statistically significant difference was determined between the functional autonomy and quality of life subscales ( $p < 0.05$ ). It was also determined that quality of life scores decreased with increasing age, SMAF scores decreased with pain. The Physical Functionality and Physical Role Difficulty scores were lower, General Health Perception scores were higher of older adults with chronic illnesses. A statistically significant correlation was found between the presence of chronic illness and SMAF.

**Conclusions:** The results of the study show that support of physical functions in older adults can be important in increasing quality of life and functional independence. Also a holistic viewpoint the need for cognitive and emotional support is as important as that for solving medical health problems.

**Key Words;** Functionally-Impaired Elders, Geriatric Nursing, quality of life

### Introduction

The aging of a population changes its age structure, reducing the proportion of children and young people and correspondingly increasing the proportion of older adult. This increase in the population of older adults has a great effect on bringing infectious diseases under control, the development of protective health services along with bringing infant and child deaths under control, reducing the birth rate and increasing life expectancy at birth, and the development of health services (National Action Application Plan in Turkey, 2013). In this process of demographic transition, which has been

called the World Aging Process, population projections estimate that the proportion of older adults in Turkey will reach 10.2% by 2023 and 20.8% by 2050, and that Turkey will be on the United Nations list of “very old” countries. The total rate of population increase in Turkey in 2014 was 13.3%, while the rate of increase of older adults was 49.9% (Olders with Statistics, 2014). The aging of the population affects all aspects of society from health to social security, and from environmental matters to education, job opportunities, socio-cultural activities and family life (National Action Application Plan in Turkey, 2013).

In the population aging process, age-related physiological changes bring with them a reduction in functional capabilities. Declining functional capacities bring about problems with self-care, activities of daily life and psychosocial problems (Mollaoglu et al., 2010; Civi & Tanrikulu 2000; McKenna et al., 2007). Advancing age increases disability as a result of chronic illness and restrictions in basic physical, mental and spiritual functions. These disabilities hinder the activities of daily life and instrumental activities of daily living (IADLs) in old age (Civi & Tanrikulu 2000; Koc 2014). Advanced age, chronic illness, exercise, difficulty walking and fear of falling are all risk factors for functional independence (Koc, 2014; Konno et al., 2014).

The concept of quality of life includes many factors affecting physiological condition and health, level of independence and social relations. Along with the increase in the world's aging population, this concept of quality of life in older adult has gained great importance. According to a report by Tarsuslu-Simsek (2011), studies carried out in various countries at different times have shown that mobility and daily life activities are important components in relation to health in the quality of life. It has been reported in the same studies that there is a correlation between quality of life and mobility levels, daily life activities, cognitive function, physical activity and physical function (Tarsuslu Simsek et al., 2011). The most important factors reducing the quality of life have been shown to be the severity of disability (mental, functional and in terms of mobility), anxiety, depression and chronic illness. Mental and mobility disabilities make daily activities such as shopping, social interaction and self-care more difficult and thus can reduce the quality of life (Tarsuslu-Simsek et al., 2011).

Approaches to old age today are focussed on raising the quality of life and general health. Thus, many national and international declaration and action plans focus on aiming at a productive, successful and independent old age. Successful aging is a concept aimed towards not only health but an overall psychological and social state of wellbeing. The aim of a nurse in successful aging is to preserve and improve an individual's health

at all stages of life. The target of services offered to older adult is to preserve their quality of life and enable them to experience an active life as they grow older. Nurses help older adults to perform physical care, face emotional problems, look after themselves and cope with their deficiencies, and see themselves as valuable. Nurses play an important role in improving older adult's quality of life so as to increase their satisfaction with life and to preserve their mental health, in assessing sources of social support, and in setting in motion an individual's social resources (Ercan, 2010).

### **Aim**

The aim of this descriptive study was to determine the functional independence and quality of life of the aged 65 and over of an older adults in nursing home.

### **Methods**

#### **Design**

The study was carried out at a government nursing homes attached to the Ministry of Family and Social Policies. The population of the study consisted of the 88 older adult living in the nursing homes. There was no sampling process and it was intended to include all of the residents in the study by the "whole count" method, but eight residents were unwilling to take part in the study and were not included. As a result, the sample was made up of 81 individuals who were over 65 years of age, who were able to communicate, who had no hearing problems and who had no diagnosis of psychiatric illness.

#### **Data Collection Forms**

The Older Adults Assessment Form, The Functional Autonomy Measurement System and a Quality of Life Scale Short form -36 were used to collect research data.

**The Older Adults Assessment Form** was created by the researchers by making use of the literature (Cil, 2010; Tuna & Senol Celik, 2010). It contained questions on the socio-demographic characteristics of the older adults and on their state of health.

**The Functional Autonomy Measurement System (SMAF)** was developed in the mid 1980s, and assesses the functional

independence and level of disability of individuals aged 65 and over (Hebert,1988). Validity and reliability studies of the Turkish version were performed by Tuna and Çelik (2010).

The scale assesses 29 functions related to daily life activities (eating, washing, dressing, personal care, and urinary and bowel functions and using the toilet), mobility (moving around, walking in a building, fitting a prosthesis or orthosis, using a wheelchair in a building, going up and down stairs, and moving around outside), communication (seeing, hearing and speaking), mental functions (memory, orientation, understanding, deciding and behaviour), and instrumental activities of daily life (housework, preparing food, shopping, washing clothes, using the telephone, transport, taking medicine and managing a budget).

It is included in the scale a section assessing handicaps other than the disabilities of old age, and the resources used to overcome these disabilities. In the disability section of the scale, complete independence in the functions assess scores 0; performing the functions completely independently without monitoring, alerting or help, but with difficulty, scores -0.5; performing the functions but needing monitoring or alerting scores -1; using a prosthesis or orthosis or using a wheelchair with difficulty scores -1.5; performing the functions with help scores -2; and inability to perform any of the functions alone (if completely dependent) scores -3. The total disability score on the scale is obtained from the total of all of the function scores. If the total score is less than -5, the old person has a risk of losing functional independence. It has been stated that the scale can be used in epidemiological studies of older adult being cared for at home or in institutions (Rai et al.,1996). Permission to use the scale was obtained from its author via email.

#### **Quality of Life Scale Short Form (SF- 36):**

This widely-used scale was devised at the Rand Corporation in 1992 to measure the quality of life (Ware & Sherbourne,1992). Turkish validity and reliability work was begun with the participation of Simsek, and completed by Kocyigit et al. (1999). The

scale consists of 36 items and eight dimensions. The assessment takes into account the previous four weeks. The subscales are scored from 0 to 100, with 0 indicating a poor state of health and 100 a good state of health. Quality of life in relation to health, and physical, mental and social functional wellbeing are indicated. SF-36 has the advantages of being quick to complete – this can be done in as short a time as five minutes, of being able to assess both positive and negative aspects of health, and being more sensitive than other scales, such as the Nottingham Health Profile, in showing small changes in disability (Herbert et al., 1988). Interpretations of the subscale scores are as given in Table 1 (Herbert et al., 1988).

#### **Data Collection**

Data collection was performed by face to face interview with the older adult in the living room of the institution. The questions were read out one by one to each older adult by a researcher, and the answers were noted. Each interview lasted approximately 20-25 minutes.

#### **Ethical Considerations**

Ethical permission was obtained from the Non-Invasive Research Ethics Committee, and written permission was obtained from the provincial office of the Ministry for Family and Social Policies. The researchers explained the study to the older adult and obtained their written consent.

#### **Statistical Analysis**

The SPSS 16.0 programme was used in the analysis of data, and  $p < 0.05$  was accepted as statistically significant at a reliability level of 95%. Descriptive statistics such as numerical and statistical values were used in the analysis; the Pearson correlation test was used to examine the relation with the subdimensions of the scale, and the t test and ANOVA test were used in comparing the scale according to demographic variables.

Normal distribution of the mean values obtained from SF-36 and SMAF was calculated using the single sample Kolmogorov-Smirnov test, and it was found that the mean values obtained from the scores on both scales had normal distribution ( $K-S: > 0.05$ ). For statistical comparison, age

groups of 65-70, 71-75, 76-80 and 81 and above were made. Similarly, having a chronic illness, a fear of falling and difficulty walking were assessed as yes/no, and taking exercise as does/doesn't.

## Results

### Distribution of Socio-Demographic Characteristics

Table 2 shows findings relating to the older adults' socio-demographic characteristics. It can be seen that the largest proportions of the participants were aged 81 years and over (38.3%), were male (80.2%), and were widowed or divorced (51.9%). Similarly, 37% were illiterate, and 37% were educated to primary level.

The reason for living in an older adults' home of 72.8% was that they had no one to look after them; 55.6% had been in the home for three years or longer.

The proportion of those with chronic illnesses was 82.7%. 59.3% took exercise; thus 40.7% did not. 61.7% of the older adult reported having difficulty walking, 22.2% that they had at least once been in fear of injury, and 49.4% that they had fallen at least once.

### Findings of SF-36 and SMAF

Table 4 shows the distribution of the older adults' mean scores on SMAF and the subdimensions of SF-36. The total mean score on SMAF was  $-22.17 \pm 19.06$ .

The correlation between SMAF and the subdimensions of SF-36 was investigated, and a high positive correlation was found between SMAF and the Physical Function dimension, a medium level positive correlation with the Physical Role Difficulty dimension, a medium level negative correlation with the Pain dimension, a medium level negative correlation with the General Health Perception dimension, a weak negative correlation with the Energy dimension, and a weak positive correlation with the Emotional Role Difficulty dimension.

No correlation was found between SMAF and the Social Functionality and Mental Health dimensions.

### Findings in the Comparison of Various Socio-Demographic Characteristics with SF-36 and SMAF

It was found that scores on the SF-36 subdimensions and SMAF were no different according to such variables as gender, smoking or alcohol consumption, length of time in the home, or the amount of medicine used per day ( $p > 0.05$ ), but that Physical Function scores were higher in those who were married ( $21.23 \pm 6.18$ ) than in those who were unmarried or widowed or divorced.

In terms of age groups, the Physical Function and General Health Perception scores were highest in the 65-70 age group. Pain scores were lowest in those aged 76-80. At the same time, the SMAF scores of the 65-70 age group were higher than those of other groups, and the lowest scores were in the 81 and over age group.

The Physical Functionality and Physical Role Difficulty scores of older adults with chronic illnesses were lower than those of ones who did not have a chronic illness. General Health Perception scores etc. of those who had chronic illnesses were higher.

A statistically significant correlation was found between the presence of chronic illness and SMAF: the mean score of those without chronic illnesses was  $-5.96 \pm 7.99$  and that of older adults with chronic illnesses was  $-25.55 \pm 18.99$ . Thus, the SMAF scores of the older adults without chronic illnesses were lower.

The Physical Function and General Health Perception scores of the older adults who took exercise were higher, and their Social Functionality scores were lower, than those of the older adults who did not take exercise (exercising:  $5.88 \pm 1.20$ ; not exercising:  $6.61 \pm 1.34$ ).

The SMAF scores of those who took exercise were  $-26.94 \pm 19.28$  and those of the ones who did not were  $-15.23 \pm 16.70$ ; thus, the SMAF scores of those who did not take exercise were higher.

As shown in Table 5, the scores on Physical Function, Physical Role Difficulty and Emotional Role Difficulty of those older

adults with difficulty walking were lower than the scores of those who did not have difficulty walking, while their Pain and General Health Perception scores were higher. The SMAF scores of those who had difficulty walking were  $-29.89 \pm 18.73$ , which was lower than the scores of those who did not have difficulty walking. The Physical Function and Emotional Role Difficulty scores and the SMAF scores of older adults who were staying in the home in order not to be a burden on their families were higher than the scores of those who were staying there for other reasons.

### Discussion

Both national and international meetings and guides have been organized to change the perception of old age as a time of cognitive and physical decline, abandonment of a productive role, change in social position, weakening of interpersonal support and loss of health, and to promote the idea of active aging. In one of these, the First Old Age Assembly held in Vienna in 1982, the main theme was “an independent life, participation, care, a dignified life and self-realization” (Kutsal, 2002).

It is felt that the results of this study, performed with the aim of examining the daily functional independence and quality of life of people aged 65 and over living in an older adults' home, underscore the sub-themes of the First Old Age Assembly, and can be a guide to existing and planned services to realize the aims of increasing health and wellbeing in old age. A large proportion (38.3%) of the older adults who participated in the study were aged 81 and over, which shows that people staying in the home were at an advanced stage of old age. A majority of those staying in the home were male, and a large proportion were widowed or divorced. It is known to be widespread in Turkey that when men lose their partners or are separated from them, they are unable to carry on life alone and have a greater need for care, so that their preference for staying in an older adults' home reflects a socio-cultural feature. This situation was summarized in another study carried out in this country, which showed that more than half of women were able to continue with their lives when they were widowed, but that

men more often chose to re-marry (Cil, 2010). The physical (loss of muscle strength, decline in motor functions), sensory (visual and auditory losses) and mental losses of old age have a negative effect on the functional independence of older adults (Altıparmak, 2009; Mollaoglu et al., 2010). According to their mean scores on the SMAF scale, which was adapted by the World Health Organization and used in this study to measure the functional independence of older adult taking into account their deficiencies, disabilities and handicaps, it can be said that the independence of the individuals participating in the study was low. In a study published by Tuna in 2012, it was found that the mean score of older adult was  $-7.60 \pm 10.21$  (Tuna % Senol Celik, 2012). A study by Desrosiers et al. (1995) on 90 older adults using SMAF determined the functional independence scores of these individuals to be  $-40.14 \pm 13.9$  (Desrosiers et al., 1995). In a study by Rai et al. (1996) on older adults in a rehabilitation unit using SMAF, the functional independence score of the older adults was found to be  $18.06 \pm 10.0$ . The differing scores in these studies are related to variation in functional dependence levels according to the physiological characteristics of the older adults in the sample groups. It was observed that the functional independence of the chronically ill was lower from the point of view of autonomy than that of older adults who had difficulty walking. Insufficient physical activity results in loss of mobility and causes older adults to become dependent in daily life. For this reason it is important that people of advancing age should take exercise so as to remain independent.

Quality of life in relation to health indicates that life is functional and good in the physical, mental and social fields. A person's ability to be independent is an important factor affecting their quality of life. Examining the relation between the SMAF, which measures the levels of functional dependence and disability of older adults, and quality of life, it is seen that as long as older adults do not have problems in the areas of physical function, physical difficulty in role, or in emotional role, their functional independence increases and their dependence decreases.

**Table 1: Interpretation of Scale SF-36**

<b>Subdimension</b>	<b>Low score</b>	<b>High score</b>
Physical Function	Performance of all physical activities like bathing and dressing are severely limited	All physical functions are performed without health-related limitations
Difficulties in Physical Role	Problems with work and daily activities related to physical state of health	No problems with work and daily activities related to physical state of health in the last four weeks
Difficulties in Emotional Role	Problems with work and daily activities related to emotional problems	No problems with work and daily activities related to emotional problems in the last four weeks
Social Functionality	Great difficulty with social activities related to physical and emotional problems	Able to perform social functions normally in the last four weeks without experiencing physical or emotional problems
Mental Health	Continually feeling nervous and depressed	Continually calm and happy in the last four weeks
Energy	Permanently tired and exhausted	Has felt energetic and strong for the last four weeks
Pain	Feels strong and severe pain	Has not felt pain or limitation due to pain in the last four weeks
Perception of general health	Believes that personal health is low and is likely to get worse	Believes that personal health is excellent

**Table 2: Sociodemographic Findings of Older Adults (n:81)**

<b>Sociodemographic Characteristics</b>		<b>n</b>	<b>%</b>
<b>Age Categories</b>	65-70	20	24.7
	71-75	17	21.0
	76-80	13	16.0
	81+	31	38.3
<b>Gender</b>	Male	65	80.2
	Female	16	19.8
<b>Education</b>	Not illiterate	30	37.0
	Literate/ primary school	30	37.0
	Secondary and high school	21	25.9
<b>Marital Status</b>	Widow/ Divorce	42	51.9
	Single	26	32.1
	Married	13	16.0
<b>Income</b>	Income=Expense	31	38.3
	Income < Expense	31	38.3
	Income > Expense	19	23.5
<b>Staying reason</b>	Had no one to look after them	59	72.8
	Don't want to be a burden to the family	10	12.3
	Don't take care by the family	8	9.9
	Can not do self care	4	4.9
<b>Staying time</b>	<3 years	36	44.4
	>3 years	45	55.6

**Table 3: Distribution of SF-36 and SMAF Scale Scores (n:81)**

SCALES	Mean	±SS	Minimum	Maximum
SMAF	-22.16	±19.06	-68.00	0.0
<b>SF-36</b>				
Physical Function	18.53	±6.43	10.0	30.0
Difficulties in Physical Role	6.02	±1.76	4.0	11.0
Pain	6.15	±3.19	2.0	11.0
Perception of general health	14.91	±2.87	6.0	22.0
Energy	14.75	±2.78	8.0	24.0
Social Functionality	6.17	±1.30	2.0	10.0
Difficulties in Emotional Role	4.78	±1.60	3.0	12.0
Mental Health	18.10	±3.40	7.0	26.0

**Table 4: Pearson Correlation Analysis between SF-36 and SMAF Scale Scores (n:81)**

SF-36 Subscales	SMAF Scale	
	r	p
Physical Function	,770*	,000
Difficulties in Physical Role	,503*	,000
Pain	-,587*	,000
Perception of general health	-,507*	,000
Energy	-,439*	,000
Social Functionality	0,128	,256
Difficulties in Emotional Role	,330*	,003
Mental Health	0,009	,936

\*p&lt;0.05



**Table 5: Analysis of the Association Between Some Sociodemographic Characteristics and SF-36 Subscale Scores**

	n	Physical Function		Difficulties in Physical Role		Pain		Perception of General Health		Energy		Social Functionality		Difficulties in Emotional Role		Mental Health	
		X	±SS	X	±SS	X	±SS	X	±SS	X	±SS	X	±SS	X	±SS	X	±SS
<b>Chronic Disease</b>																	
No	14	23.50	7.12	7.21	1.76	4.86	3.16	12.29	2.70	14.79	2.67	6.64	1.74	5.50	2.35	18.57	4.05
Yes	67	17.49	5.82	5.78	1.67	6.42	3.15	15.46	2.61	14.75	2.82	6.07	1.18	4.63	1.37	18.00	3.27
<b>t,p</b>		<b>3.378</b>	<b>0.001</b>	<b>2.906</b>	<b>0.005</b>	<b>-1.684</b>	<b>0.096</b>	<b>-4.122</b>	<b>0.000</b>	<b>0.048</b>	<b>0.962</b>	<b>1.497</b>	<b>0.138</b>	<b>1.890</b>	<b>0.062</b>	<b>0.570</b>	<b>0.570</b>
<b>Exercise</b>																	
Doing	48	16.65	5.58	5.71	1.86	6.75	2.81	15.52	2.53	14.92	2.45	5.88	1.20	4.52	1.43	17.75	3.47
Not doing	33	21.27	6.69	6.48	1.52	5.27	3.54	14.03	3.15	14.52	3.22	6.61	1.34	5.15	1.77	18.61	3.27
<b>t,p</b>		<b>-3.381</b>	<b>0.001</b>	<b>-1.986</b>	<b>0.050</b>	<b>2.003</b>	<b>0.050</b>	<b>2.359</b>	<b>0.021</b>	<b>0.637</b>	<b>0.526</b>	<b>-2.569</b>	<b>0.012</b>	<b>-1.770</b>	<b>0.081</b>	<b>-1.116</b>	<b>0.268</b>
<b>Difficulties in walking</b>																	
Yes	50	15.60	4.93	5.32	1.58	7.10	2.94	15.76	2.50	14.98	3.02	6.02	1.22	4.50	1.40	17.92	3.40
No	31	23.26	5.77	7.16	1.42	4.61	3.02	13.55	2.95	14.39	2.33	6.42	1.41	5.23	1.80	18.39	3.42

t,p		-6.363	0.000	-5.291	0.000	3.666	0.000	3.612	0.001	0.933	0.354	-1.349	0.181	-2.027	0.046	-0.599	0.551
<b>Staying reason</b>																	
Had no one to look after them	59	18.22	6.44	6.15	1.78	6.10	3.25	14.85	3.10	14.81	2.86	5.97	1.26	4.54	1.37	17.88	3.62
Need of care	12	16.17	6.25	5.25	1.60	6.92	3.53	15.83	2.25	15.25	2.18	6.83	1.27	5.00	1.48	18.08	2.94
Not want to be a burden to the family	10	23.20	4.59	6.20	1.75	5.50	2.42	14.20	1.87	13.80	2.97	6.60	1.35	5.90	2.47	19.40	2.37
<b>F, P</b>		<b>3.753</b>	<b>0.028</b>	<b>1.380</b>	<b>0.258</b>	<b>0.555</b>	<b>0.577</b>	<b>0.937</b>	<b>0.396</b>	<b>0.791</b>	<b>0.457</b>	<b>2.966</b>	<b>0.057</b>	<b>3.422</b>	<b>0.038</b>	<b>0.851</b>	<b>0.431</b>

In a study by Zincir et al. (2008) it was found that the quality of life of 65-74-year-olds was higher than of those at a more advanced age. Other studies carried out in Turkey (Cil,2010; Yagcioglu, 2013) also showed that quality of life scores fell with increasing age, and the findings of the present study were similar with regard to mean quality of life scores. All of these results show that in this country older adults' quality of life decreases with advancing age. Pain has been shown to be a physical symptom which

causes a reduction in functional independence.

Many physical functions are affected by increasing age, and with advancing age, physical disability increases (Mckenna et al., 2007; Mollaoglu et al., 2010). In this study also, it was found that individual independence was greater in the 65-70 age group and functional independence was lower in those over 81 years old. It can be said that autonomy decreases as age

advances. According to aging statistics for 2014, between 16.5 and 31.4% of people over the age of 75 had difficulty in areas such as eating, bathing, dressing and moving around (Olders with Statistics 2014). Two other important findings of this study were that people in the 76-80 age group experienced more pain and those over 81 had lower health perceptions. Taking into consideration the fact that life expectancy at birth will be 77.9 years in 2023 according to gender, and that the number of people in the 75-79 age group will increase fourfold and the number of people over 80 will increase 2.5 to 3 times, the importance of implementing action plans for healthy and active aging becomes evident.

Examining the relationship between marital status and quality of life, it was seen that the quality of life was higher in physical terms for those who were married. The scores on the Physical Function dimension of people between the ages of 65 and 70 were higher than the scores of those who were widowed or divorced or who were older, showing that they could carry out all physical activities without difficulties relating to health. This shows that not being alone has an important positive effect on the maintenance of physical functioning. In another study of older adults, it was established that the total quality of life scores of older adults who were currently married were higher than those of people whose partner had died or those who were single (Cil, 2010).

A large proportion of the older adult participating in the study stated that they were staying in the older adults' home because they had no one else, and this finding explains why so many of those staying in the home were male or widowed. The proportion of older adults staying in the home because they did not want to be a burden on their families was 12.3%, and their physical independence relating to physical function and physical role limitation and autonomy was seen to be greater. Care in the community for older adults becomes progressively more difficult with changes in demographic structure (the increase in the proportion of older adult) and social structure (a greater participation of women in the work force, the predominance of nuclear families, the reduction in size of dwellings, etc.)

Similar to the findings of the present study, another study listed among the most important reasons for older adult to apply to live in an older adult's home as being alone (16.4%), not wanting to be a burden on their children (15.6%), and their children not being able to look after them (23%) (Kılıc, 2009).

Studies which have been carried out call attention to the fact that physical disability increases along with chronic illness (Civi & Tanrikulu, 2000; Mollaoglu et al., 2010; Cook & Potlo, 2003), and has a negative effect on the performance of activities of daily life. The results of a nationwide study showed that 9-19% of those aged 65 and over had difficulty in accomplishing daily living activities. In the present study it can be said that the physical activities of those with chronic illnesses were limited, and that they had difficulty in accomplishing physical activities, but that on the other hand their health perceptions were better. This situation in chronically ill older adult is related to their ability to cope with their illnesses. It was found in a study by Özyurt et al.(2007) that the scores for autonomy and social participation of older adult without illness were higher.

It was reported in one study that exercise improved cardiovascular performance in older adult, reduced joint and muscle pain, and increased physical performance and functional independence (walking, going shopping, moving around, etc.) (Hernandez et al., 2009). It was seen in the present study that those older adults who exercised despite chronic illness were better able to perform physical functions, their general health perceptions were lower, and their social functioning was better. At the same time, it was found that functional independence with regard to autonomy was greater in the older adults who exercised. It was observed that the physical activities of the older adults who had difficulty walking were more limited, they had difficulty in accomplishing the activities of daily life and had difficulties of emotional origin; they experienced greater pain, and their general health perception was lower. It was found in a national study that 27.8% of older adults in country areas and 31.5% in cities were unable to walk (Olders with Statistics 2014).

The first limitation of this study is that it only included findings relating to the individual and socio-demographic characteristics of older adults living in nursing homes. It is recommended that the study results should not be generalized to all older adults living in nursing homes, and that the many varying factors which can affect the quality of life and functional independence of older adults living in different nursing homes should be assessed independently. Secondly, there are few national or international published studies of functional independence in older adults, with the result that discussion of the findings of the study is limited.

### Conclusion

The results of the study show that support of physical functions in older adults can be important in increasing quality of life and functional independence. Also, in the planning and application of geriatric services for older adults whether receiving institutional care or living at home, it has been shown that from a holistic viewpoint the need for cognitive and emotional support is as important as that for solving medical health problems. Thus, in the implementation of the National Aging Action plan, Objective-2 emphasises that independent life needs to be supported taking into account the needs of older adults, and that plans need to be developed to make their daily lives easier both in the home and outside. It can be said that scales such as SMAF are important in determining the long-term health care costs and nursing care costs for older adults whether being cared for at home or in institutions. Approaches are recommended to improve older adults' cognitive functions and to encourage older adults to make use of these possibilities.

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