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Yaşlılarda Aktif Yaşlanma Bakış Açıları ve Sosyal Katılımlarının Kognitif Durumları ve Fonksiyonel Bağımsızlıklarıyla İlişkisi

The Relationship of Active Aging Perspectives and Social Participation of Older Adults with Their Mental States and Functional Independence

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ÖZ

Amaç: Bu çalışmanın amacı, yaşlıların aktif yaşlanmaya bakış açısı ve sosyal katılımlarını inceleyerek bunların kognitif durum ve fonksiyonel bağımsızlıkları ile ilişkisini belirlemektir.
Yöntem: Çalışmaya 60 yaş üstü, yaş ortalaması 70.94±8.1 olan toplam 298 katılımcı dahil edildi. Çalışmaya dahil edilen bireylerin kognitif fonksiyon dereceleri Mini Mental Durum Testi (MMDT) ile, fonksiyonel bağımsızlık düzeyleri Barthel İndeksi ile değerlendirildi. Çalışmaya dahil olan yaşlı katılımcıların sosyal katılım sıklıkları 19 sorudan oluşan likert tipteki (araştırmacılar tarafından oluşturulan) sosyal katılım değerlendirme formu ile analiz edildi. Bu form ile çeşitli günlük sosyal aktivitelere katılma sıklıkları değerlendirildi.
Bulgular: Sosyal katılım değerlendirme formu puan ortalamaları yüksek olan bireylerin Mini Mental Durum Testi puan ortalamaları ve Barthel İndeksi puan ortalamaları daha yüksekti (sırasıyla r1: 0.329, p<0.001; r2: 0.247, p<0.001). Çalışmaya dahil edilen yaşlı bireylerin %60'ı iyi fiziksel sağlık ve fonksiyonların aktif yaşlanmanın göstergeleri olduğunu belirtmiştir.
Sonuç: Sonuç olarak, yaşlı bireylerin günlük yaşam aktivitelerine sosyal katılımı, bilişsel işlevlerini ve fonksiyonel bağımsızlık düzeylerini etkileyebilir. Yaşlı bireylerde sosyal katılımın artırılması, fonksiyonel bağımsızlığın ve bilişsel durumun geliştirilmesinde önemli olabilir.

Anahtar Kelimeler: Yaşlı, Fonksiyonel durum, Sağlıklı yaşlanma, Sosyal katılım.

ABSTRACT

Objective: The aim of this study is to examine the active aging perspectives and social participation of older adults and to determine their relationship with their mental states and functional independence.
Method: A total of 298 participants over the age of 60, with a mean age of 70.94±8.1 were included in the study. The degree of cognitive function of the individuals included in the study was evaluated with the Mini Mental State Examination (MMSE), the level of functional independence was evaluated with the Barthel Index. The frequency of social participation of the older adult participants included in the study were analyzed with a Likert-type social participation evaluation form (created by the researchers) consisting of 19 questions. With this form, the frequency of participation in various daily social activities was evaluated.

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Yazar Katkıları: A) Fikir/Kavram, B) Tasarım, C) Veri Toplama ve/veya İşleme, D) Analiz ve/veya Yorum, E) Literatür Taraması, F) Makale Yazımı, G) Eleştirel İnceleme

Results: Individuals with high social participation evaluation form mean scores had higher Mini Mental State Examination mean scores and Barthel Index mean scores (r1: 0.329, p<0.001; r2: 0.247, p<0.001, respectively). 60% of older adults included in the study stated that good physical health and functions are indicators of active aging.
Conclusion: As a result, the social participation of older adults in daily life activities may affect their cognitive function and functional independence levels. Enhancement of the social participation may be important in developing functional independence and cognitive status among older adults.

Keywords: Aged, Functional status, Healthy aging, Social participation.

1. INTRODUCTION

The older adults population is increasing worldwide. Additionally, individuals in Turkey age similarly. The older adults population is expected to reach 8.6 million in 2023 and 16 million in 2050 (1). In the older adults population, the rate of disability and dependency is gradually increasing. As people age, the presence and likelihood of multiple chronic diseases increases. This is a common problem in the older adults, significantly associated with high mortality, increased disability, and decreased functional capacity (2,3). With advancing age, there is a decrease in social participation due to the decrease in the physical and mental capacities and the life cycle transitions of older adults. Increasing social participation among older adults plays a key role in the concept of successful aging (4). Active aging is an important concept that expresses the state of being physically and mentally active, working and taking part in the social environment, together with the fact that older adults lead their lives in a healthier and more independent way. According to the World Health Organization (WHO), active aging is a process that encourages older adults to remain physically, mentally, and socially active (5). This concept emphasizes the health, participation, and functionality of the older adults in the last stages of their lives. Social participation and functional independence have an important place in the active aging process (6,7).

Questioning the social relations and social participation rates associated with active aging are also important issues. Social participation is the continuity of social connections and participation in social activities. Social participation refers to a wide range of activities that a person does with family, friends, and social groups by spending his/her money and time (8). Social participation activities are defined as participation in a course of interest, participation in social centers, participation in voluntary work, going to a museum, exhibition, theater, concert, meeting with relatives or friends, singing, or attending religious meetings (9). However, social participation is a factor that enables the older adults to continue to be an important part of society. It helps the older adults maintain their social networks and friendships, participate in community activities and even contribute to volunteer work (10).

Based on the literature, it is important to encourage and adopt active ageing in older adults (8-10). The fact that social participation and the perspective of participation are more positive in the older adults and therefore the frequency of participation is higher will have many positive effects on the quality of life, especially their mental states and functional independence (4,5). At the same time, the adoption of the concept of active and successful aging by the older adults would contribute positively to the parameters related to the health and social participation of older adults in society (5,10). The unique aspect an aim of this study is the evaluation of older adults' perspectives on active ageing by considering the relationship between social participation, mental states, and functional independence levels of older adults. This study is

based on the hypothesis that active ageing and social participation are associated with cognitive status and functional independence in older adults. In this study, it is one of our other aims to support active and successful aging processes in our country and to draw attention to the importance of this issue.

2. MATERIALS AND METHODS

Individuals over the age of 60, without any chronic disability, and volunteering to participate in the study were included in the study.

Personal information about the individuals included in the study, such as age, gender, marital status, educational level, employment, and presence of chronic disease, was questioned with the personal information form. In the personal information form, the older adults were asked the question "What do you think is the definition of active ageing?". Multiple-choice answers were presented for this question. These answers were; good physical health and functions, be active in leisure and social activities, better mental functions, and better social relations and communication. In addition, they were asked to answer the question "Where do you see yourself in Active Ageing?" from the options of extremely active, highly active, moderately active, less active and inactive. These questions were created by the authors of the study, taking into account the markers of active ageing recommended by WHO (5). The degree of cognitive function of the participants was evaluated with the Mini Mental State Examination, the level of functional independence was evaluated with the Barthel Index, and their social participation statuses were evaluated with the social participation evaluation form created by the researchers. The social participation form was created by the authors of the study by taking into account the social participation forms used in previous studies (9,11-13). In studies conducted in Turkey where the determinants of active ageing were analyzed, it was taken into consideration (14,15).

The social participation form to evaluate the social and societal participation of older adults included in the study consisted of 19 questions questioning the frequency of participation of older adults in various social activities (going for a walk, going for a picnic, going to a place of worship, meeting with friends outside, participating in hobby courses, etc.). The frequency of participation questioned in this social participation evaluation form is in the form of a six-point Likert type: every day [5], 2-3 days a week [4], once a week [3], once every two weeks [2], once a month [1], less than once a month or never [0], and the mean scores of the individuals were recorded. The minimum score that can be obtained from the social participation form was 0, and the maximum score was 95.

The data of older adults included in the study were taken by face-to-face interview method. Written informed consent forms were obtained from all individuals participating in the study, stating that they voluntarily participated in the study. Between May 2022-Jan 2023, data were collected. The study was approved by the clinical research ethics committee (Protocol Number: 2022/108). In this study, the provisions of the Declaration of Helsinki were complied with.

Mini mental state examination (MMSE)

It is the most commonly used test for the assessment of cognitive function. The MMSE consists of eleven questions and is evaluated over 30 points. Twenty-four to thirty points are associated with normal, 18 to 23 points with mild cognitive impairment, and 17 points and below with severe cognitive impairment. The MMSE tests orientation, memory, attention, calculation, recall, language, motor functions, perceptions, and visuospatial abilities (16). Its validity and reliability study was performed. The 23/24 threshold value was found to be sensitive and specific (17).

Barthel index (BI)

The BI is used to assess the level of independence of older individuals in activities (18). The Turkish validity and reliability study of the index was performed by Küçükdeveci et al. (19). It includes 10 basic activities of daily living, such as feeding, personal care, bathing, using the toilet, transferring from wheelchair to bed, walking, going up and down stairs, dressing, urine and stool control, and driving a wheelchair if unable to walk. The index total score is between 0 and 100. 0-20 points explain being completely dependent, 21-61 points severe dependency, 62-90 points moderate dependency, 91-99 points mild dependency, and 100 points total independence (19).

Statistical analysis

Statistical analyzes were performed using the SPSS 25 (Version 25, Chicago, USA) package program. The suitability of the data to the normal distribution was analyzed using the Kolmogorov-Smirnov Test. Variables determined by numerical measurement for descriptive analyzes were expressed as arithmetic mean and standard deviation (X±SD). The relationships between the total activity mean score and the MMSE mean score and the BI mean score was analyzed by Pearson correlation analysis. Pearson correlation coefficients were classified as low (0.26 – 0.49), moderate (0.5– 0.69), high (0.7– 0.89), or very high (0.9 –1.0) (20). Sample size calculation was performed with G. Power, version 3.1.7 software. The relationship between two variables (coefficient of correlation) was estimated as r=0.5, considering a= 0.01 and b= 0.05. Accordingly, the sample size was calculated as 210 individuals.

3. RESULTS

The sociodemographic characteristics, MMSE, and BI mean scores of a total of 298 older adults participating in the study are presented in Table 1.

The percentages of answers given to the frequency of social participation in daily life activities are presented in Table 2.

The percentage distribution of the multiple-choice answers given to the question of "What do you think is the definition of active aging?" is 60% to have good physical health and functions, 11.1% to be active in leisure and social activities, 12.1% to have better mental functions, and 16.8% to have better social relations and communication.

The percentage distribution of the multiple-choice answers given to the question of "Where do you see yourself in Active Aging?" is 5.4% extremely active, 18.5% highly active, 43.6% moderately active, 24.8% less active, and 7.7% inactive.

In the comparison of social participation mean scores according to gender, the mean of male individuals is 30.7±11.9, and the mean of female individuals is 23.5±11.5. It was observed that the BI mean score of male individuals is statistically significantly higher than that of female individuals ($p<0.001$).

A statistically significant difference was found in the social participation mean score comparisons according to employment ($p=0.023$). The social participation mean score of employed individuals is 33.8±10.6, the mean score of unemployed individuals is 25.6±12.8, and the mean score of retired individuals is 27±11.4. It was observed that the social participation mean score of the employed older adults is statistically significantly higher than the unemployed ones ($p=0.02$).

A statistically significant correlation was found between the mean scores of the social participation form, MMSE, and BI (r1: 0.329, $p<0.001$; r2: 0.247, $p<0.001$, Table 3).

Table 1. The Sociodemographic Characteristics and the Mean Scores of the MMSE and BI

	M±SD (n=298)	**Min-max**
Age (years)	70.94±8.1	60-105
Gender (F/M)	164/134	-
Height (cm)	164.3±9.3	132-190
Wight (kg)	76.3±14.3	42-150
Educational Level		
Illiterate (%)	38.9	-
Primary School (%)	40.9	-
Middle School (%)	11.1	-
High School (%)	5	
University (%)	4	
Employment		
Retiree (%)	45.3	
Employed (%)	6	
Unemployed (%)	48.7	
Marital Status		
Married	71.8	
Single	-	
Widow	28.2	
Number of Children	5.7±2.5	0-13
Use of Medications (Present/Absent, %)	58.7/41.3	
Assistive Device for Walking		
Not Using (%)	63.8	
Walking Stick (%)	26.2	
Crutch (%)	2.3	
Wheelchair (%)	1.3	
Walker (%)	6.4	
Chronic Disease		
Absent (%)	41.3	
Present (%)	48.7	
MMSE	21.7±5.1	7-30
BI	87.6±16.7	10-100
Total social participation score $_{(0\text{-}95)}$	26.7±12.2	10-76

M±SD: Mean and standard deviation, MMSE: Mini Mental State Examination, BI: Barthel Index

Table 2. Participants' Social Participation Evaluation Form Percentages

	Less than once a month / never (%)	Once a month (%)	Once in every 2 weeks (%)	Once a week (%)	Two or three times a week (%)	Every day (%)
Going to the coffee shop	79.2	1.7	2.7	4.0	8.4	4.0
Going to the market	18.1	18.5	10.1	18.8	25.5	9.1
Attending social centers	69.8	12.8	7.4	4.0	3.4	2.7
Attending a hobby course	91.3	3.0	2.3	2.0	1.0	0.3
Participating in volunteer work	72.8	14.1	5.7	3.0	2.0	2.3
Going to museums, exhibitions, theaters, movies, and concerts	88.3	6.4	3.7	0	1.3	0.3
Meeting friends outside	21.8	15.1	11.7	12.8	22.1	16.4
Going for a walk	20.8	9.1	7	13.8	21.8	27.8
Participating in sports activities	76.8	8.7	2.7	4.4	5.0	2.3
Go fishing	90.9	4.4	2.7	0.3	1.0	0.7
Going to picnic	49.0	31.9	6.4	7.4	3.4	2.0
Going to the place of worship	35.9	12.4	4.0	12.8	12.4	22.5
Going to neighbor (days)	26.5	13.8	9.7	16.4	21.1	11.7
Participating in excursions with tours	85.6	8.1	2.7	2.3	1.0	0.3
Going to the bank	52.3	30.9	7.0	4.4	5.0	0.3
Going to hospital	34.2	38.9	11.4	8.7	4.7	2.0
Frequency of phone calls	4.7	3.0	5.4	9.7	18.5	58.7
Visiting relatives	8.1	16.4	16.1	20.8	28.2	10.4
Wedding, eid visits	41.3	33.6	5.7	7.7	6.4	5.4

Table 3. Relationships Between the Mean Scores of MMSE, BI, and Social Participation Evaluation Form

		MMSE	BI
Social Participation Evaluation Form	p	<0.001*	<0.001*
	r	0.329	0.247

* p<0.001, pearson correlation analysis. MMSE: Mini Mental State Examination, BI: Barthel Index

4. DISCUSSION

The results of the present study examining the relationship between the older adults' perspectives on active aging and their social participation and mental states, and functional independence showed that there is a relationship between the social participation statuses of the older adults and their degree of cognitive function and functional independence. It was determined that the social participation level is low in the sample in which the study was conducted. In line with the aim and unique aspect of this study, it is seen that mental states and

functional independence in the older adults are of great importance on the rates of social participation.

Although there are policies to support active aging, multidimensional different perspectives, productivity, health, independence, participation, and well-being among older adults are emphasized rather than an accepted definition of this concept (21). Within the scope of this emphasis of WHO, and within the scope of this research, social participation and functional independence statuses of older adults in daily life activities and their perspectives on active aging were investigated. The results of our study presented that the social participation percentages of older adults in daily life activities are quite low. It was found that the daily social participation activity of 58.7% of the participants is talking on the phone, followed by going for a walk with a rate of 27.8% and going to a place of worship with a rate of 22.5%. It is noteworthy that the social participation rates of the participants were higher in the option less than once a month or never. In the results of this option, the low rates of individuals' participation in sports activities and voluntary work are also noteworthy. The findings obtained from the study presented that older adults should be followed up and included in training programs in terms of low social participation rates related to active aging. These programs should encourage the older adults to maintain their social networks and friendships, participate in community activities and even contribute to voluntary work (5). It can be predicted that these programs will improve the quality of life of the older adults and reduce their demand for health services and the cost of care (5,21).

The older adults are at risk for social isolation. Social participation, on the other hand, is seen as having an impact on the health and well-being of the older adults, and it is stated as a tool to reduce these risks in the elderly (11,12,22). In the older adults, their abilities and mobility levels in daily life activities decrease with advancing age, and accordingly, their social participation levels also decrease (11,23,24). It is stated that not only the individual should be active in old age, but also the activeness of the individual in social interactions should be encouraged (25). Similar to the literature, the current study presented that the social participation percentages and mean scores of the older adults are low. It draws attention to the importance of social participation among older adults in terms of many factors.

Studies in the literature presented that the active aging perceptions of older adults are associated with optimum health conditions and quality of life (13,26). In a study by Bowling et al., in which older adults' perceptions of active aging were questioned, one-third of older adults reported themselves as "very active" and nearly half as "quite active" aging (13). In our study, 5.4% of older adults stated themselves as very active and 18.5% of them stated themselves as very active on the issue of active aging. With the highest rate, 43.6% of older adults reported that they consider themselves as moderately active. However, from the point of view of social participation, it is noteworthy that the social participation mean score of the participants, with the highest 95 points, is 26.7, which is lower than the average. This indicates that although the social participation mean score of older adults is low, they express their own activity levels at higher rates and perceive them in this way. In this context, it can be emphasized that the perspectives of older adults in terms of active aging and social participation should be taken into account in the interventions to be applied to social participation. Maintaining physical and mental health parameters enables better relationships with family and friends and allows them

to take an active part in society. Encouraging older adults to participate in regular exercise and physical activity will also play an important role in the process of active ageing (5,21).

It was reported that the awareness of active aging should be widespread among older adults (27,28). It is known that healthy life, mental health, social participation, and active aging are closely related to each other (7). Parameters associated with successful aging are the absence of disabilities, arthritis or diabetes, and not smoking. Being more physically active and having social contacts are moderately associated with better health and better cognitive functions. Gender, educational level, income, and marital status are not associated with successful aging (29). Having a job as a source of employment is one of the many factors affecting active aging (30). One current study presented that male older adults get better level in active aging due to this were more active at work (31). In this study, which examined social participation in terms of having social contacts related to the concept of active aging, it was seen that the presence of a chronic disease did not affect their social participation mean score. Social participation mean scores were found to be better for males than females in terms of gender, and employed individuals were better than unemployed individuals. This suggests that employed older adults may have more social contacts and higher economic levels than unemployed individuals. Different from the literature, the fact that the social participation mean scores are different in terms of gender can be interpreted as the fact that the male gender is more active in out-of-home work in Turkish society and this may be effective in having more social contacts. It would be useful to further investigate and address the potential underlying factors contributing to these differences.

Functional independence and cognitive performance in activities of daily life are essential issues for developing an independent lifestyle among older adults. Negative effects of cognitive function on functional independence and mobility were reported among older adults (32,33). In a study examining the functional independence and social communication of older adults over 60 years of age, it was stated that older adults are insufficient in terms of these parameters. Additionally, it was stated that functional independence is effective in social relations and the sustainability of instrumental daily life activities (34). In a current study, it was stated that social participation among older adults is significantly related to mental and physical health (4). According to the results of the present study, older adults were asked the question of "What do you think is the definition of active aging?", and 60% of them answered the question as having good physical health and functions, and 12.1% of them answered this question as having better mental functions. As a result of the current study, it was determined that the social participation mean scores of older adults who are independent in their daily life activities and who have better cognitive performance are higher. This shows that among older adults, functional independence and cognitive function levels in daily life activities significantly affect social participation. In this context, functional capacity and cognitive performance issues should be among the important markers in intervention programs for the social participation of older adults.

There is a relationship between the social participation statuses of the older adults and their degree of mental states and functional independence. However, this relationship between the parameters was found to be low. Clearly investigating the functional levels of the older adults and the factors limiting their participation will contribute to the effective interpretation

of the results. The potential reasons for this should be investigated in more detail in future studies.

Limitations

The strongest and unique aspect of our study is that interrelated parameters that can significantly affect social participation were questioned and evaluated together. The most important limitation of the study is that the parameters that limit the social participation status of the older adults were not questioned in detail in a different way such as personal, environmental, institutional, etc. Another limitation is that social participation was questioned by the form created by the researchers. The lack of scoring, standard and validity of the form is one of the limitations. In the studies to be planned on the subject of active aging, the questioning of social participation with clear frameworks, a clear investigation of the functional levels of the older adults, and various factors limiting their participation would contribute to the effective interpretation of the results.

5. CONCLUSION

Decreases in the cognitive performance of older adults and the level of functional independence in daily life activities are important indicators that they can negatively affect social participation. The results obtained from the present study draw attention to the importance of prevention, protection, and education for older adults. It can be stated that more studies are needed in order to adopt active aging in terms of older adults and society and to raise awareness, and there is a need for training programs that are designed with the aim of raising awareness of society.

Ethical considerations

The study was approved by the Gaziantep Islam Science and Technology University Non-Interventional Clinical Researches Ethics Committee (Protocol Number: 2022/108).

Conflict of interest

All authors declare no conflicts of interest.

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