

**ORIGINAL RESEARCH****Evaluation of Active aging condition in the elderly in Tehran and its relative factors**

Bahareh kashanimovahhed<sup>1</sup>, Alireza Bahrami<sup>1\*</sup>, Mohammad Bodaghabadi<sup>1</sup>, Masoumeh Shokri<sup>2</sup>

1. ACECR, Tehran, Iran
2. Center for the Study of Religion and Health, Shahid Beheshti University of Medical Sciences, Tehran, Iran

\*Corresponding Author:

Address: 2<sup>nd</sup> Floor, Bldg. No. 2 SBUMS, Arabi Ave, Daneshjoo Blvd, Velenjak, Tehran, Iran.

Email: dr.alirezabahrami@gmail.com

Date Received: May, 2019

Date Accepted: June, 2019

Online Publication: July 17, 2019

**Abstract**

Scientific and international assemblies now consider active aging as an important concept in an aging positive approach. The goal of this study is to evaluate active aging condition in the elderly in Tehran and its relative factors. This study is a cross-sectional descriptive research, which is performed in June and July 2018. The sample includes 131 old adults (people with the age of 60 or more than 60) living in Shemiranat area of Tehran. These people are selected via two-stage cluster sampling. Data-gathering tool includes “active aging” questionnaire, “life satisfaction in elderly” questionnaire and demographic data of old adults. Data analysis is performed by SPSS software and also using descriptive statistics, t-test and Pearson correlation. In this study, data suggest that only 9.2 % of case study were at the higher level of aging. According to six index of active aging, most respondent status were weak in “active mind maintenance” and “social-institutional participation” and were average in “agent attitude”, “physical-functional activity”, “social contacts” and “productive engagement”. There were reverse and meaningful relation between age and number of children variables and active aging ( $p \leq 0.05$ ) and there were positive and meaningful relation between education, occupation and income level variables ( $p \leq 0.05$ ). However, there were no meaningful relation between sex and marital status ( $p \geq 0.05$ ). The results of this study also suggest that there is positive and meaningful relation between “life satisfaction of elderly” and “active aging” ( $p \leq 0.05$ ). According to low level of active aging in old adult of Tehran, this issue needs to be addressed by the authorities. Therefore, it is necessary to consider and modify the needed solutions to improve the level of active aging and special services for this group in the future planning of the country. On the other hand, considering the concept of active aging has recently been raised in the scientific community, researchers need to plan and implement more extensive studied in this area.

**Keywords:** Elderly, Active aging, Life satisfaction

## Introduction

All living things experience aging, in other words, aging is one part of natural life and human start aging since they are born (1). According to estimations and declarations of WHO, it is predicted that by 2020, population over 65 years old include 20% of world's population; 70% of this population are living in developing country (2). According to indexes, statistical tools and demographics, population-aging process has begun in Iran. This rising trend of aging ratio is also affected by reduced fertility (3). According to the results announced at last census of the country in 2016, elderly population ( $\geq 60$  years old) is more than 7,400,000 and include 9.2% of total population of the country (4). According to United Nations announcement, aging in Iran is an accelerated trend, so by 2050, one elder will be in each Iranian family of four (5). Increasing the aging population is one of the most important economic, social and health challenges in the 21<sup>st</sup> century. Aging and age increasing is not a disease, but it is a vital and all-inclusive phenomenon; actually it is a natural process in which some physiological and mental changes take place (6). Today, the main concern of researchers is not merely the increase in lifespan, but by looking at statistics, it can be understood that the main challenge of health in the 20<sup>th</sup> century was only "the survival", the challenge of a new century is "to live better" (7). Meanwhile, various concepts were introduced in theoretical frameworks to better describe, anticipate and address the changing needs of elderly, while apposed the stereotypical and negative attitude toward age and aging (Buys and Miller 2006). The new and positive attitude to aging is referred to as, healthy aging, successful aging, optimal aging, positive aging and active aging: all of these titles have a common and powerful message. Elderly do not mean to wait for God in the room and sat down without social expectations, but a stage of life that could include decades of meaningful and targeted life. According to all overlapping between existing concepts in rejection of the new and positive aging, scientifically, active aging have

a semantic sphere that covers healthy, successful and productive aging (8). "Active aging" concept is developed in the 1990's with an emphasis on the link between "health" and "activity" (9). WHO defines the policy framework of the "active aging" and defines active aging as follows:

<<The process of maximizing the level of health, participation and safety of elderly people in order to improve their quality of life >> (10). The remarkable point in this sense is that "active" is defined as a <<continuous economic and social participation in cultural, religious and civil affairs, not only the ability to do physical activity and company in the form of labor force. Indeed, on the basis of this, the retired, sick or disable elderly can be active participant in their family, peers and nation (9). Despite the growing population of the elderly and an increase in research on aging in the last decade, the state of the elderly has not been studied in terms of active aging. Since many factors affect active aging, adequate and scientific knowledge of the impact of these factors will make appropriate interventions possible and provide a platform for effective planning and policy making. Therefore, this study aimed to investigate the active aging status of elderly in Tehran and to identify its relative factors.

## Materials and Methods

This study is a cross-sectional descriptive research, which is performed with the aim of evaluating the active aging of elderly in Tehran and its relative factors. In this study, 135 elderly at the age of 60 and older were selected through two-stage cluster sampling in Tehran. Thus, on the map of the Shemiranat area, which consists of three regions (1, 2 and 3, one district was selected randomly from each area (Velenjak district, first area; Sadeghie district, second area and Amaanie district, third area. Then, public places (the mosque, parks, shopping centers and subway stations and BRT) were separated, so that in each district, 1 subway stations or 1 BRT, 1 park and 1 shopping center was selected. Questionnaires that had received the necessary training on interviewing and completion of the questionnaire, were present on the on the following days in these places and after

introducing themselves to the research units and expressing the goals of the study, attracted the consent of the individuals to participate in the research. Finally, 15 samples from each general location were included in the study, having criteria for entry to the study and expressing desire. From 135 completed questionnaires, 4 questionnaires were expired regarding the invalidity of the answers to the questionnaire and 131 questionnaires were analyzed. The tool for gathering the data was a questionnaire including three sections: demographic, active aging questionnaire and life satisfaction questionnaire for elderly people. Active aging questionnaire in the 2017 was psychologically analyzed by Mohammadi et al. This tool is based on the native perception of active aging in the Iranian community, especially in Tehran. This measurement tool consists of 40 questions with 6 factors of social-institutional participation, active mind maintenance, social contacts, agent attitude, productive engagement, physical-functional activity. Reliability was based on Cronbach's alpha; coefficient of 0.88 and stability of 0.95 through retest. In this questionnaire, questions 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 are graded in the form of, no: 1, little: 2, somewhat: 3, much: 4, very much: 5 and the rest of the questions (7, 13, 15, 16, 17, 21) were graded revers. It should be noted that questions 106 related to active mind maintenance subscale, questions 7-13 related to agent attitude subscale, questions 14-21 is related to physical-functional activity subscale, questions 22-28 is related to social contacts subscale, questions 29-36 is related to productive engagement subscale and questions 37-40 is related to social-institutional participation subscale. Also in order to assess the satisfaction of life in the elderly, a questionnaire of 13 questions of life satisfaction was used, which was standardized by Tagharobi et al. in 1389. It has been answered to every question in the form of options: don't know, agree, disagree and 0-1-2 system was used to score the answer of each

question. In this way, score 0 was considered for don't know option; in positive questions, score 2 was considered for agree option and score 1 was considered for disagree option; in negative questions, score 2 was considered for disagree option and score 1 was considered for agree option and total score of life satisfaction is determined in on a scale of 0-26. Obviously, a higher score indicates a higher level of life satisfaction among the elderly. Descriptive statistics, T-test and Pearson correlation were used to analyze the data using SPSS software.

### Results

37.4 % of the participants were female and 62.2% were male. The mean age of the studied units was 68.66 with standard deviation of 6.60, of which the lowest was 60 years and the highest was 89 years. 84% of subjects were 74-60 years old. The findings showed that most of the subjects were married (56.6%); in terms of education, they were diploma (25.4%) and retired (43.1%). In the terms of income level, the highest percentage was in the range of 2-3 million Toman (30.2%). Also, 55% of respondent had 3-5 children. The study of active aging components showed that the elderly of Tehran were at the moderate level in the term of agent attitude, social contacts, physical – functional activity and productive engagement and in the term of active mind maintenance and social-institutional participation were at undesirable level. In total, 9.2% of the respondent had favorable active aging level, 74.8 % were relatively favorable and 16 % were unfavorable (Table 1).

Table 1- distribution of active aging and its factors in the elderly in Tehran

	Favorable		Relatively favorable		Unfavorable	
	Number	Percent	Number	Percent	Number	Percent
Active mind maintenance	15	11.5	40	30.5	76	58
Agent attitude	21	16	81	61.8	29	22.1
Social contacts	37	28.2	77	58.8	13	17
Physical-functional activity	31	23.7	93	71	7	5.3
Productive engagement	24	18.3	81	61.8	26	19.8
Social-institutional participation	11	8.4	59	45	61	46.6
Active aging	12	9.2	98	74.8	21	16

In table 2, the relationship between the active aging variable and the underlying variables has been investigated. The results indicate that there is a direct and significant relation between educational level, job status and income level with active aging. Also, there was a significant reverse relationship between age and number of children. On the other

hand, gender variables and marital status with active aging variables are related.

Table 2 - the relation between the active aging variable and the underlying variables in the elderly in Tehran

	Active aging	
	Correlation value	meaningfulness
Educational level	0.467 **	0.000
Income level	0.480 **	0.000
Job status	0.364 **	0.000
Age	-0.359 **	0.000
Number of children	-0.346 **	0.000
Gender	0.039	0.659
Marital status	-0.108	0.226

The couple comparison of the subgroups revealed that there is no significant difference between active aging in women and men. Also, the results of LSD chasing test for comparing variables with more than two subgroups indicates that the aging of the elderly is increases as the active aging decreases. The higher the level of their education, the active aging level is more in these elderly people. Elderly people with 1-2 children had higher average active aging than other elderly people. The comparison of active aging in married, single, divorced and deceased spouse was not significant. Regarding the job status, the working elderly had more favorable active aging than other groups. Ultimately, the higher the income level of the elderly, the higher the active aging level is. (Table 3)

Table 3 - the comparison of the active aging with underlying variables in the elderly in Tehran

Variable	Test value	average	Variable	Test value	average
Gender			Number of children		
Male	t= -0.45	115.2	No child	F=6.442	123.6
Female	p=0.653	117.05	1-2 children	p=0.000	125.6
			3-5 children		112.7
			More than 5 children		96
Age			Job status		
60-74 years old	F=6.72	119.3	Employee	F=1.453	132.2
75-85 years old	p=0.002	101.8	Retired	p=0.236	113.2
More than 86 years old		92	Out of service		103.7
			Housewife		109.2
Educational status			Income level		
Under the diploma	F=9.4	106.27	Less than 1 million Toman	F=15.8	102.4
Diploma and associated degree	p=0.000	110.6	1-2 million Toman	p=0.000	109.6
Bachelor		125.5	2-3 million Toman		112.4
MA and more		136.3	More than 3 million Toman		134.2
Seminary		108.5			
Marital status					
Married		118.7			
Single		110.7			
Divorced		115.41			

The relationship between life satisfaction of elderly and active aging shows a significant relationship. The higher the active aging in the elderly the, higher the life satisfaction is in these people. This relation is between the active aging factors and the level of life satisfaction of elderly except Productive engagement. (Table 4)

Table 4-The relationship between life satisfaction of elderly and active aging and its factors in elderly in Tehran

	Active aging	
	Correlation value	meaningfulness
Active aging	0.438 **	0.000
Active mind maintenance	0.335 **	0.000
Agent attitude	0.497 **	0.000
Physical-functional activity	0.368 **	0.000
Social contacts	0.252 **	0.004
Social-institutional participation	0.254 **	0.003
Productive engagement	0.022	0.80

**Discussion**

Politician and health planners regard the growing population of elderly people in Iran and many other societies as serious health issue. It is important to use indicators such as life quality, life satisfaction of active aging as an appropriate tool for quantitative analysis of these concepts and the status of elderly people in community. This research was conducted to investigate the active aging status of the elderly in Tehran. The results of this study indicate that the status of studied elderly was generally moderate in terms of active aging. These results were consistent with study of (11) Z asimova and Sheluntcova also reported in their study that 41.5 % of the studied elderly are inactive in terms of active aging and 70% of participants achieved very low scores in at least one component of active aging, including health, social participation, and security(12). Studies have shown that several factors are involved in active aging. In the present study, there was no difference in the rate of active aging in men and women but the results of Tarqo et al. showed that generally active aging in men had more favorable status than women. The active age of men was higher than women in the components of physical health and safety, but women had a higher average in social participation. Non-matching results in these two studies can be related to the characteristics of the population under study. Tarqo et al. have studied on elderly in Bangladesh and difference in native and cultural issues may also have contributed to this. Also, the evaluation tool was different in this study and Tarqo study.

The present study has been shown that active aging and its indicators have relationship with age; so that as the age rises, active aging and its indicators decrease. The results of Zasimova and Sheluntcova study also confirmed this point. At an old age, the incidence of disability was more pronounced and appears as a reduction in physical activity and physical constraints and the risk of chronic disease in the elderly also increases (13) and can lead to reduced active aging. In the study of the effect educational level variable, the results of findings indicate that active aging has a significant relationship with the education level and with the increase in the level of education, the average active aging score increases. This finding, in confirmation of the findings of another study (14) suggests that education is a positive factor in having a healthy and effective life, and this leads to better health and life satisfaction (13). With regard to active aging and income levels, the findings indicate that the average active aging score of those with higher income levels is higher. Also, employed people had a higher average active aging score than other groups. Economical bottlenecks and livelihood problems are factors that affect paroles lives. In this situation, the elderly are exposed to more pressure. Poverty and social deprivation is the biggest barrier to comfort and security in older people. In addition, in poor elderly also develop illnesses that can lead to reduced active aging (15). Employment also increases the chance of regular income and maintaining contact with others, which seem to have a positive effect on active aging. The present study showed significant relation between the number of children and active aging. Studies indicated that elderly with 1 or 2 children, had a better level of active aging. But average active aging score was lower in elderly with no children or more than 5 children. To explain this finding, it can be argued that older people with more children have less time and opportunity to receive health care during their lives. Also, these people have suffered various issues by having children, such as taking care of their children and training them. On the

other hand, those who do not have children are more exposed to isolation and loneliness in their old age, which is one of the potential health threats in their elderly age. Both of these can reduce the average active aging. The results of the present study reported the significant relation between life satisfaction of elderly and active aging. The broad concept of active aging can mean that the more the elderly be in favorable status in terms of active aging and its factors, that is social participation and communication with individuals, health and ability to function is in more favorable situation. It has also had a more positive attitude towards the elderly and has been more successful in keeping the mind active by learning and practicing skills, all of which can increase the satisfaction of life in the elderly. Given the fact that active aging in the elderly was not at the optimal level, it needs to be addressed more seriously in future planning and policy making. Actions such as improving physical health by providing the necessary training in middle age and providing serious and comprehensive insurance support, developing centers for the prevention of chronic diseases and the monitoring of the elderly health and increasing the mobility and physical activity, increasing social and civil participation through the expansion spaces and social clubs and creating a volunteer groups can help to achieve aging.

### **Conclusion**

Since the concept of active aging has been raised in scientific – in recent decades and is a new concept, many studies have not been carried out yet. One of the serious limitations of this study is the lack of implementation of similar studies to assess the active aging status of elderly people in the country. The only studies in Iran have been done to explain the concept of active aging and instrumentation, and researchers need to design and implement extensive studies in this regard.

### **Conflict of interest**

Authors declare no conflict of interest.

**References:**

1. Bastani F, Pourmohammadi A, Haghani H. Relationship between Perceived Stress with Spiritual Health among Older Adults with Diabetes Registered to the Association of Diabetes Prevention and Control in Babol, 2013. *Hayat*. 2014;20(3):6-18.
2. Hedayati E, Hazrati M, Momen Nasab M, Shokoohi H, Afkari F. The Relationship Between Spiritual Well-being and Anxiety of Aged People Admitted in Coronary Care Units. *Iranian Journal of Ageing*. 2016;11(3):432-9.
3. Mohammadi E, Allahyari T, Darvishpoor Kakhaki A, Saraei H, Fereshtehnejad SM. Analysis of Being Active Based on Older Adults' Experience: A Qualitative Study of Active Aging Strategies. *Iranian Journal of Ageing*. 2017;11(4):504-17.
4. Report of 2016 census of housing and population of iran. center Is.
5. Abedi S, Foroughan M, Khanjani MS, Bakhshi EA, Farhadi A. Relationship Between Meaning of Life and Spiritual Well-being in the Older People Residing in Nursing Homes Shemiranat, 2014. *Iranian Journal of Ageing*. 2016;11(3):456-65.
6. Imanzadeh A, Hamrahzdeh M. Identification of Facilitators and Deterrents of the Quality of Life in Elderly Women and Men: A Phenomenological Research. *Iranian Journal of Ageing*. 2018;12(4):430-45.
7. Abdoli B, Shamsipour Dehkordi P, Shams A. The Interactive Role of Physical Activity and Personality Traits in Psychosocial Status of Elders. *Salmand: Iranian Journal of Ageing*. 2009;4(1):0-.
8. Mohammadi E, Allahyari T, Darvishpoor Kakhaki A, Saraei H. Determining Psychometric Properties of Iranian Active Aging Measurement Instrument. *Iranian Journal of Ageing*. 2018;12(4):414-29.
9. Foster L, Walker A. Active and successful aging: A European policy perspective. *The Gerontologist*. 2014;55(1):83-90.
10. Organization WH. Active ageing: A policy framework. Geneva: World Health Organization, 2002.
11. Tareque MI, Hoque N, Islam TM, Kawahara K, Sugawa M. Relationships between the active aging index and disability-free life expectancy: a case study in the Rajshahi district of Bangladesh. *Canadian Journal on Aging/La Revue canadienne du vieillissement*. 2013;32(4):417-32.
12. Zsimeva L, Sheluntcova M. Measuring active aging for government policy planning: a case of Russia. 2014.
13. rajabi mj, s. kashanimovahhed,b,bahrami,a. quality of life in and its correlatades in elderly in tehran. *payesh*. 2017;4(16).
14. Tareque M, Hoque N, Islam T, Kawahara K, Sugawa M. Relationships between the Active Aging Index and Disability-Free Life Expectancy: A Case Study in the Rajshahi District of Bangladesh. *Canadian journal on aging= La revue canadienne du vieillissement*. 2013;32(4):417.
15. Habibi AN, s.Sohbatzadeh,R. Haghani,H. Quality Of Life in elderly people of west of Tehran. *Iranian Journal of Nursing Research*. 2008;2(7):29-35.