

Research Paper**Comparing the Quality of Life Between Active and Non-Active Elderly Women With an Emphasis on Physical Activity**Mojtaba Ahmadi¹, *Mohammadali Noudehi², Mohsen Esmaeili³, Ali Sadrollahi⁴

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ABSTRACT

Objectives Among different people, especially the elderly who are undergoing their specific physical, emotional, and psychological conditions, quality of life is considered an issue that is of paramount importance. The present study aims to make a comparison between the quality of life in elderly women who lead an active life with those with a non-active one with special emphasis on physical activity.

Methods & Materials The study is a descriptive research including a sample population of 176 elderly women over 60 years old in Bandar-e Gaz city in Iran. Convenience sampling was performed. To obtain the required data, a Short Form-36 (SF-36) questionnaire was used. For statistical analysis, Kolmogorov-Smirnov (K-S) test and Mann-Whitney U test were used. All the statistical operations were done using SPSS Statistics 20 in significance level of $P \leq 0.05$.

Results The results of study indicate that the average age of active and non-active women were 65.69 ± 5.45 and 64.32 ± 5.14 respectively. The active elderly women enjoyed a higher quality of life than the non-active ones considering indicators such as physical performance limitations, physical and emotional problems, and pain and public health. However, in terms of social function indicator, no significant difference was noted between them. Mental and public health indicators are considered as the most important aspects of quality of life.

Conclusion The findings of this study suggested engaging in regular physical activity as it could work as a significant strategy to improve the quality of life among the elderly. Therefore, it is strongly recommended that the officials dealing with public health create appropriate facilities for the physical activity and sports of the elderly women.

Key words:

Old age, Quality of life, Physical activity

Extended Abstract**1. Objectives****E**

lderly age is a critical period of human life and paying attention to the issues and needs of this age-group is a social

necessity [1]. Quality of life is very important in different aspects, especially individuals with special physical, mental and psychological conditions, and those who are in special circumstances due to the stress caused by deteriorated quality of life [2]. Finding ways to improve the health and wellbeing of individuals whether in the physical dimension or in the spiritual

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and mental aspects, which ultimately leads to an increase in their quality of life, can play an important role in preventing people from developing a variety of diseases during the old age. Exercise and mobility will delay elderly age and the elderly who exercise are healthier and happier [3]. Therefore, given the specific characteristics of this age period in terms of having a variety of physical and mental problems, the present study has been conducted with the aim to investigate and compare the quality of life of active and inactive elderly women in Bandar-e Gaz city of Iran.

2. Methods & Materials

This study was a descriptive-survey research. The population of this research was all elderly women over 60 years old in Bandar-e Gaz town. Convenient sampling method was used in this study. The number of research samples was 176. The inclusion criterion for this study were: age over 60, having Iranian nationality, ability to speak Persian, lack of known psychological illness (psychosis), having full vigilance at the time of the study, the ability to communicate and the answer study questions, and being a settled resident in Bandar-e Gaz. Any subject withdrawing from respond-

ing to the questionnaire during the course of the work and interview were excluded from the study.

Study subjects were classified into two groups identified as active and inactive through self-declaration, in a way that the active aged group included people who performed physical and sports activities for at least two 45-minute sessions per week such as walking, running slowly, morning exercises, swimming, etc. [1]. On the other hand, the inactive group was formed by people who, according to him/her, did not perform any weekly physical and sporting activities. In order to collect the data for this study, the SF-36 questionnaire was used which consists of 36 phrases and evaluates eight distinct areas including physical function, social function, physical role playing, emotional role paying, mental health, vitality, physical pain, and general health. Various studies have confirmed the validity and reliability of this questionnaire [1, 4, 5, 6].

In order to analyze the statistical data, Kolmogorov-Smirnov test (KS test), and the Mann-Whitney U test were used. All statistical operations were carried out using the SPSS-20 software (IBM Corporation, New York, USA) in the significance level of $P < 0.05$. Code of ethics to conduct this research was obtained based

Table 1. Comparison of the status of quality of life indicators of active and inactive elderly women in Bandar Gaz

Indicators of Quality of Life		Number	Mean	SD	Umen-Whitney	Z	Significance
Physical activity limitation	Active	74	49.3	17.2	2108.3	-1.25	0.001*
	Inactive	102	66.2	11.3			
Physical problems	Active	74	45.9	14.8	2237.4	-1.53	0.005*
	Inactive	102	62.8	12.4			
Emotional problems	Active	74	31.5	16.6	2235.3	-0.41	0.017*
	Inactive	102	50.4	14.1			
Energy and vitality	Active	74	59.7	14.7	2174.6	-2.45	0.019*
	Inactive	102	52.2	11.5			
Psychological health	Active	74	56.6	17.9	2304.5	-3.12	0.003*
	Inactive	102	45.2	14.2			
Social performance	Active	74	50.9	17.6	2236.7	-0.68	0.36
	Inactive	102	47.3	16.2			
Pain	Active	74	41.2	12.3	2139.5	-3.74	0.012*
	Inactive	102	58.3	17.7			
General health	Active	74	60.1	13.9	2264.8	-2.12	0.001*
	Inactive	102	49.3	15.4			

on the license issued by the Vice-Chancellor for Research of Bandar-e Gaz Islamic Azad University and the research was subsequently approved by the authorities with the reference number 54042921117001.

3. Results

The results of the research in the descriptive statistics section showed that the mean age of elderly women in the active group was 65.69 ± 5.45 and the inactive group was 32.34 ± 5.14 . In order to check the normalization or abnormality of the data distribution, the Kolmogorov-Smirnov test (KS test) was used. Since the significance level ($\text{Sig.} < \alpha$) was obtained and data distribution of data was abnormal, therefore, in order to compare the status of people's quality of life indicators, the non-parametric Mann-Whitney U test was used (Table 1).

The findings of the research showed that compared to inactive women, active women obtained following scores: on the indicators of physical activity limitations (49.2 ± 17.2 and 66.2 ± 11.3), physical problems (45.9 ± 14.8 and 62.8 ± 12.4), emotional problems (31.5 ± 16.6 and 50.4 ± 14.1), energy and vitality (59.7 ± 14.7 and 52.2 ± 11.5), mental health (56.6 ± 17.9 and 45.3 ± 14.2), pain (41.2 ± 12.3 and 58.3 ± 17.7), and general health (60.1 ± 13.9 and 49.3 ± 15.4). They also had a higher quality of life, therefore no significant difference was observed in the social performance index (50.9 ± 17.6 versus 47.3 ± 16.2). Also, the results of the research in terms of the ranking of various indicators of quality of life showed that mental health with an average of 47.5 had the highest rank and emotional problems with a mean score of 3.67 had the lowest rank.

4. Conclusion

Considering the increasing number of elderly people, it is important to pay attention to the different dimensions of their quality of life. Based on the findings of this study, compared to the inactive aged women, active aged women had higher quality of life owing to physical activity. Therefore, performing regular physical activity can be considered as one of the great solutions in improving the quality of life of the elderly. Meanwhile, it seems that prescribing an effective physical activity plan for this community group should be a program that combines aerobic activity (such as benefits from cardiovascular exercises) and strength training (to increase the musculoskeletal system's ability).

Accordingly, it is suggested that health officials and practitioners, respected authorities of the elderly care

centers, and retirement centers for various organizations must take into account developing suitable sports facilities to help the elderly engage in physical activity.

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Conflict of Interest

The authors declared no conflicts of interest.