



Original Article

Effect Of Physical Activity on Quality of Life in Older Adults of Faisalabad

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ABSTRACT:

A rapid increase in the population of older adults has been seen in recent years. With an increasing population of older adults, their health care facilities must be monitored to meet the demand. But unfortunately, poor quality and lack of health care services are increasing the burden of non-communicable diseases. These disorders are directly or indirectly related to lifestyle and quality of life in the geriatric population. Other problems that elder people face in Pakistan include economic problems, financial issues, lack of health insurance, and low pensions, among others. All of these complications along with lack of health services contribute to poor quality of life in older adults. **Objective:** The main purpose of our study was to determine if mild to moderate physical activity has any effect on different variables of Health-Related Quality of Life (HRQL). **Methods:** It was a cross-sectional study carried out in the city of Faisalabad among older adults aged above 60 years. 173 older adults, including 119 males and 54 females, participated in the study. Short Form-36 questionnaire was used to collect the data. **Results:** The results showed that older adults that participated in 15-25 min of physical activity daily, enjoyed a better quality of life as compared to ones that do not exercise. **Conclusion:** Older adults who participated in 15-25 min of daily physical activity had suffered less pain and sickness as compared to physically inactive older adults. Therefore, including over a moderate-intensity exercise in the daily lifestyle of an older adult can improve many aspects of HRQL.

KEYWORDS:

Coronary Artery Disease, Age, Gender, Mortality



INTRODUCTION

A rapid increase in the population of older adults has been seen in recent years. According to a

WHO report on global health and aging, 524 million people of age 65 and older made up 8% of the worldwide population. This number is anticipated to rise to 1.5 billion by 2050, accounting for 16 percent of the global population [1]. In developed countries, the aging population is rising at a faster rate [2]. Similarly, in Pakistan, the population of older adults is more than 8 million and it is expected to increase up to 27 million by the year 2050 [3]. There are many problems that elder people face in Pakistan including economic problems, financial issues, lack of health insurance, low pension [4]. With an increasing population of older adults, their health care facilities must be monitored to meet the demand. But unfortunately poor quality and lack of health care services are increasing the burden of non-communicable diseases, such as hypertension, diabetes, cancer, respiratory disorders, and other musculoskeletal problems, among others. These disorders are directly or indirectly related to lifestyle and quality of life in the geriatric population. Other problems that elder people face in Pakistan include economic problems, financial issues, lack of health insurance, and low pensions [4]. All of these complexities along with lack of health services contribute to poor quality of life in older adults. Quality of life (QOL) is a broad concept that encompasses both positive and negative elements of life. It is very difficult to measure the quality of life as every individual has a different concept of it and will define it differently. Alongside health, there are other domains of quality of life such as family, house, office, work, environment, etc. As a result, the term "health-related quality of life (HRQL)" is employed, which encompasses four different aspects: Physical, mental, social, and functional health. Several studies have shown that physical activity can be an essential element in improving different aspects of QOL. For instance, a study conducted in 2019 favoured that physical activity is an essential factor in opposition to anxiety and depression in elders. The findings show a link between less physical activity and signs of anxiety and distress [5]. The health benefits (reduced cardiovascular diseases, hypertension, diabetes, and cancer, etc.) of physical activity are also well known [69]. Similarly, a survey concluded that older people live a hard time in disease and other illnesses if they acquire physical inactiveness. The chances of these diseases are much lower in an active group [6]. The decrease in the risk of chronic illness and early mortality linked with regular exercise might be due to several physiological processes. For example, with regular physical activity improvement can be seen in adiposity and weight management [10]. Regular physical activity has proven to improve your lipid profile by decreasing triglycerides in your blood, increasing the level of high-density lipoproteins (HDL), and decreasing low level lipoproteins (LDL) [11]. Physical activity reduces blood pressure [12], mitigates body inflammation [13], reduces the chances of blood coagulation [14] increases coronary blood circulation [15], and improves cardiac function. Chronic inflammation is associated with multiple chronic diseases in the body, which can be prevented by physical exercise. Several studies have shown a reduction in the level of C-reactive protein by regular exercise. All of these factors help to reduce the incidence of chronic diseases somehow. Physical exercise increases Quality of Life (QOL), aerobic fitness, and cardiovascular function in older individuals with myocardial

infarction, according to the findings. In addition, training mode and volume should be considered for improvement [16].

The main purpose of our study was to determine if mild to moderate physical activity has any effect on different variables of HRQL.

It was a cross-sectional study design in which a Short Form-36 questionnaire was used to collect the data. The study was conducted among older adults in Faisalabad city. From February to July 2021, the study took 6 months to complete. A total of 173 individuals (119 males and 54 females) were chosen at random, and the data was collected in accordance with the parent article and with the supervisor's approval. Only individuals who agreed to take part in this study were given the questionnaire. Following criteria will be Followed, Inclusion Criteria in which older adults that were above 60 years old and physically fit were included in the study. Exclusion criteria in which older adults that were physically disabled diagnosed with any cardiopulmonary disorders, were hypertensive, diabetic, or had any surgical history causing any physical limitations were excluded. After getting the acceptance of sample size and keeping in view the exclusion and inclusion criteria of the study a standard questionnaire; medical outcome study questionnaire, short form 36 health survey was selected as a data collection tool. The questionnaire fulfilled all of the criteria and circumstances pertaining to the research issue. SF-36 has shown to be valid for multiple populations including older adults [17], older adults with mobility problems [18], stroke patients [19], and schizophrenic patients [17]. Questionnaire was divided into two part. Demographic data that was necessary for the study was collected in demographic portion while health related questions were asked in second part of the questionnaire. This was a survey-based study by using convenient sampling after meeting exclusion and inclusion criteria. The sample size of 173 members was interviewed through a medical outcome study questionnaire Short Form-36, health survey to collect data. Participants were informed about the study's goal and advantages before the data was collected. Before using the questionnaire for research, the supervisor had to authorize it. The study's main goal was to determine the impact of physical activity on older adults' quality of life. The data were analysed by using SPSS version 23.0. The frequency distribution of a descriptive study was used to check the occurrence of each response. After calculating frequency distribution, cross-tabulation was used to create the bi-variate relationships. Crosstabulation is used to find the interrelationship between variables and in this study gender is used as an independent variable to find the relationship with other variables. For simple and easy data entry SPSS version 25 software, information of the variables is converted into numerical coding after completing data collection so that it can be easy for application of analysis of data and statistical tests to find out the significance of the research. The study was conducted after informing the participants about the purpose of the study. This study didn't force any participant to fill the questionnaire and all the personal information was kept confidential. The selection of respondents was done without any favouritism. The study ensured the obscurity of participants.

RESULTS

The results for the effect of physical activity on different domains of HRQL (i.e. mental health, body pain, sickness, and general health status) were obtained by analysis of data in SPSS. According to assessments, out of 173 older adults, (43) 24.9% spend 5-10 min daily in exercise,

(21) 12.1% spend 10-15 min daily in exercise, (55) 31.8% spend 15-25 min daily in exercise while (54) 31.2% don't exercise. Out of these 54 respondents who do not exercise at all, only 1 (1.9%) reported a very good health status. While among those who exercise for 15-25 min daily, 11 (20.0%) reported very good health status (Shown in Table 1). Similarly, out of these 54 respondents who do not exercise at all, 13 (24.1%) reported poor health status. While among those who exercise for 15-25 min daily, 1 (1.8%) reported poor health status (Shown in table 1). The significance value for association between physical activity and health status is equal to 0.001

Physical Activity		10-15 min	15-25 min	5-10 min	Do not exercise
Health Status	Poor	0	1	10	13
		.0%	1.8%	23.3%	24.1%
	Fair	14	23	21	32
		66.7%	41.8%	48.8%	59.3%
	Good	4	19	8	8
		19.0%	34.5%	18.6%	14.8%
	Very good	3	11	3	1
		14.3%	20.0%	7.0%	1.9%
	Excellent	0	1	1	0
		.0%	1.8%	2.3%	.0%
Total		21	55	43	54
		100.0%	100.0%	100.0%	100.0%

Table 1: Daily Physical activity in cross-tabulation with health status.

DISCUSSION

We aimed at assessing whether regular exercise had a positive effect on health-related quality of life in older adults. Although there were many dimensions and aspects of a good quality of life and all of them cannot be studied at a time. Therefore, we analysed age, gender, pain, sickness, mental calmness, and health status among older adults and how regular exercise affects these aspects. Previous studies suggested endothelial tissues are very integral tissues of the body. Endothelial abnormalities have been reported in multiple diseases including diabetes, stroke, heart failure, hypertension, and obesity, as suggested by previous literature. Another factor for the decline in its function is aging. Regular physical activity has been found to increase vascular integrity, resulting in improvement in endothelial function as well [20]. Our study analysed physical activity and its association with health-related quality of life in older adults. The results showed that 32.2% of older adults in Faisalabad are physically inactive and don't exercise at all, 24.9% spend 5-10 min daily in exercise, 12.1% spend 10-15 min daily in exercise and 31.8% spend 15-25 min daily in exercise. Previous studies showed that wellorganized and heavy exercise improves health-related quality of life in healthy and diseased populations. Our study focuses on the effect of exercise that is not organized and is less intense. This less intensity exercise showed a positive effect on multiple domains of health-related quality of life. Different literature conducted before suggested that physical activity is an essential factor in opposition to anxiety and depression in elders. For instance, a study was conducted to analyse physical activity levels and their effects on quality of life, anxiety, and stages of depression in the elderly population. The main aim was to compare these elements in

physically active older people to assess the relationship between physical activity levels and examine anxiety and depression in older adults in society. The observation favoured that physical activity is an essential factor in opposition to anxiety and depression in elders. The results indicate an association between low levels of physical activity and indications of anxiety and depression in older people's society [5]. Our study suggested that with little, mental calmness and peacefulness can be increased. According to analysis, amongst older adults who didn't exercise at all, 16.7% felt calm most of the time in the previous 4 weeks. While those older adults who exercise for 15-25 min daily, 43.6% felt calm most of the time in the previous 4 weeks. And finally, a great association between physical activity and general health was found. Our study suggested that among those who do not exercise, very few old adults had very good health status. While in older adults who exercised for 15-25 min daily, the population with very good health status increased.

CONCLUSIONS

In summary, older adults who participated in 15-25 min of daily physical activity had suffered less pain and sickness as compared to physically inactive older adults. In the physically active group, the general health status was seen to be better than the physically inactive group. Therefore, including 15-25 min of moderate-intensity exercise in the daily lifestyle of an older adult can improve many aspects of HRQL.

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