

# ORIGINAL ARTICLE

## Effect of Exercise on High Quality of Life in Elders- A Clinical Study

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### ABSTRACT:

**Background:** Exercise can enhance and keep up wellbeing nature and health quality of life (HQL) and expanding the HQL is one of the essential objectives for wellbeing change in more seasoned people. The aim of the present study was to determine the effect of exercise on HQL of older. **Materials & Methods:** This study was conducted in the department of Physiology. They were divided into 2 groups. Group I consisted of 34 subjects (exercise group) and group II control (no exercise) group had 34 subjects.

The test group was involved in a 10 weeks aerobic exercise program. The questionnaire was used for both groups. The questionnaire included the LEIPAD questionnaire for measuring HQL at week 0 and 1. It had 31 items used to measure seven main HQL dimensions or domains. **Results:** Group I and II had 34 patients each. The difference was non-significant (P=1). Group I and group II had 17 males and 17 females each. In group I, 8 were employees and 9 non worker, in group II 9 were employees and 8 non worker. 4 in group I and 2 in group 2 had education upto primary school while 7 in group I and 3 in group II had upto high school education. After intervention (exercise), the overall level of HQL, measured by seven domains of the LEIPAD questionnaire, showed statistically significant improvement in the LEIPAD score in the group I. In contrast, the level of HQL did not change and neither of scores obtained by the LEIPAD was significant so that no improvement in the LEIPAD score was found in the group I. The results clearly indicate that an exercise program has a positive effect on HQL in older adults. **Conclusion:** Physical activity in form of exercise improves the quality of life in older individuals. Exercise has additional effect in reducing depression and anxiety.

**Key words:** Control, Exercise, Physical activity.

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## INTRODUCTION

A basic general wellbeing objective is to diminish age-related incapacities in the elderly. In the following years, the number of individuals over years old will twofold, raising the issue of finding doable means for their autonomous living. Indeed, the maturing populaces are the individuals who need particular consolation to participate in physical action. Exercise and physical movement have been recommended as compelling intends to look after free living in seniority. Wellbeing related quality is characterized as ideal levels of physical, mental, part, social working including word related and life parts, connections, what's more, individual view of wellbeing, wellness, life fulfillment and prosperity.<sup>1</sup>

The elderly are more inclined to encountering different unfriendly occasions. Therefore, physical, social, monetary prosperity issues have a tendency to be interrelated to a

substantially more noteworthy degree than among other age group. Exercise can enhance and keep up wellbeing nature of life (HQL) and expanding the HQL is one of the essential objectives for wellbeing change in more seasoned people.<sup>2</sup> Different methods of activity have been offered to move forward physical capacities and HQL in more seasoned grown-ups. The objective of practice for more seasoned grown-ups is to build their save limits also, along these lines keep up the capacity to perform every day exercises. As HQL is identified with body work and structure, movement and cooperation, practice programs may prompt critical change in quality, continuance and body mechanics in more seasoned grown-ups.<sup>3</sup>

Numerous HQL instruments have been created be that as it may, the LEIPAD poll is a subjective appraisal particularly planned to decide HQL in the elderly as it takes intellectual

work into thought. This instrument is substantial, solid and furthermore exceptionally functional.<sup>4</sup> The aim of the present study was to determine the effect of exercise on HQL of older.

**MATERIALS & METHODS**

This study was conducted in the department of physiology. It included 68 subjects. All were informed regarding the study and written consent was obtained. Patients with neurological disorder, hypertension, congestive heart failure, unstable chronic illness (diabetes mellitus, malignancies), severe musculo-skeletal impairment were excluded from the study.

They were divided into 2 groups. Group I consisted of 34 subjects (exercise group) and group II control (no exercise) group had 34 subjects.

The test group was involved in a 10 weeks aerobic exercise program. The exercises included a 10 minutes warm-up, a 15 minutes walking, and a 5 minutes cool-down period. The exercises were for 3 times/ week at the rehabilitation unit. No exercise program was prescribed for the control group. Both groups were assessed before and after the exercise program.

The questionnaire was used for both groups.

The questionnaire included the LEIPAD questionnaire for measuring HQL at week 0 and 1. It had 31 items used to measure seven main HQL dimensions or domains. Each item was scored from 0 (the worst condition) to highest (the

best condition). The physical function dimension, scores ranging (0-15) the self-care dimension, scores ranging 0-15, the depression and anxiety domain, scores ranging 0-12; the cognitive functioning domain, scores ranging 0-15; the social functioning domain, scores ranging 0-9, the sexual functioning domain, scores ranging 0-6 and the life satisfaction domain, scores ranging 0-18. Results were tabulated and analyzed. P value less than 0.05 was considered significant.

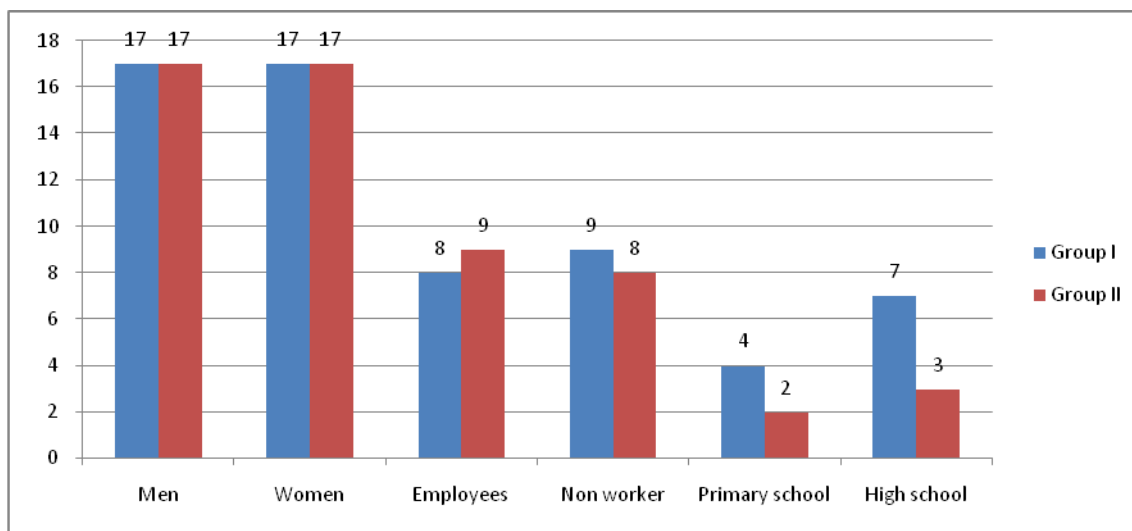
**RESULTS**

Table I shows that group I and II had 34 patients each. The difference was non- significant (P=1). Graph I shows that group I and group II had 17 males and 17 females each. In group I, 8 were employees and 9 non worker, in group II 9 were employees and 8 non worker. 4 in group I and 2 in group II had education upto primary school while 7 in group I and 3 in group II had upto high school education. Table II shows that after intervention (exercise), the overall level of HQL, measured by seven domains of the LEIPAD questionnaire, showed statistically significant improvement in the LEIPAD score in the group I. In contrast, the level of HQL did not change and neither of scores obtained by the LEIPAD was significant so that no improvement in the LEIPAD score was found in the group II. The results clearly indicate that an exercise program has a positive effect on HQL in older adults.

**Table I** Distribution of subjects

Total- 68		
Group I (Exercise)	Group II (Control)	P value
34	34	1

**Graph I** Demographic variables of groups



**Table II** LEIPAD questionnaire for measuring HQL

Domain	Group I		Group II		P value
	Pre	Post	Pre	Post	
Physical function	5.4	7.3	5.2	4.8	0.01
Anxiety	3.5	5.4	3.5	3.1	0.2
Cognitive function	2.8	4.6	3.2	2.4	0.1
Sexual function	5.8	8.1	5.2	5.6	0.04
Social function	2.6	4.4	6.6	6.0	0.1
Life satisfaction	2.3	4.7	2.7	2.3	0.23

## DISCUSSION

Physical activity (PA) professionals and participants recognize enhanced quality of life (QoL) as a benefit of and motivator for PA. However, QoL measures are often problematic and rarely consider the participants' perspective.<sup>5</sup>

Anecdotal reports from community activity programs and interview responses from a sub-sample of women in a larger study on activity and falls suggest that women cite psychological values, such as maintaining cognitive function, social relations and mood, as reasons for participating. Recent research by Segar et al. confirms that middle-age women are more motivated and likely to stay with activity with a focus on social psychological needs. The aim of the present study was to determine the effect of exercise on HQL of older.<sup>6</sup>

In this study we included 68 subjects which were divided into 2 groups. Group I was test group and group II was control. Each group had 34 subjects (17- males and 17- females).

We found that in group I, 8 were employees and 9 non worker, in group II 9 were employees and 8 non worker. 4 in group I and 2 in group 2 had education upto primary school while 7 in group I and 3 in group II had upto high school education. This is in accordance to Rubenstein et al.<sup>7</sup>

We found that test group after exercise showed more improvement in form of LEIPAD score as compared to control group. The results of our study are in agreement with Diego et al.<sup>8</sup>

Numerous more established individuals are hesitant to take part in the activity programs as a result of medicinal snags for example, weakness, damage and transportation issues. For grown-ups, there is significant proof archiving the medical advantages related with physical movement. Physical action enhances wellbeing not withstanding for incessantly sick or delicate more established grown-ups.<sup>9</sup>

Avlund<sup>10</sup> identified lack of precision in the definition of QoL as a barrier to consensus about the relationship between physical activity and QoL, and Devreux<sup>11</sup> argued that we cannot determine whether physical activity enhances QoL unless we can accurately operationalize and

reliably measure this construct. Everyone, including researchers, health professionals and the general public, seems to understand QoL, but precise definitions are elusive.

## CONCLUSION

Physical activity in form of exercise improves the quality of life in older individuals. Exercise has additional effect in reducing depression and anxiety.

## REFERENCES

1. Wallin M, Talvitie U, Cattan M et al. Construction of group exercise sessions in geriatric inpatient rehabilitation. *Health Com.* 2008; 23:245-52.
2. Grant S, Corbett K, Todd K et al. A comparison of physiological responses and rating of perceived exertion in two models of aerobic exercise in men and women over 50 years of age. *Br J Sports Med.* 2002; 36:276-81.
3. Spirduso WW, Cronin DL. Exercise dose-response effects on quality of life and independent living on old adults. *Med Sci Sports Exercise.* 2001; 33:598-608.
4. Bean JF, Vora A, Frontera WR. Benefits of exercise for community-dwelling older adults. *Arch Physic Med Rehab.* 2004; 85:31-42.
5. Bowling A, ed. Health-related quality of life: a discussion of the concept, its use and measurement. In: *Measuring disease.* Philadelphia: Open University Press. 1995:1-19.
6. Eyigor S, Karapolat H, Durmaz B et al. A randomized controlled trial of Turkish folklore dance on the physical performance, balance, depression and quality of life in older women. *Arch Gerontol Geriat.* 2009; 48: 84-8.
7. Rubenstein, Whipple RH, Gruman CA et al. The performance enhancement project: improving physical performance in older persons. *Arch Phys Med Rehab.* 2002; 83: 1060-9.
8. Diego, Kobayashi H, Kitabayashi T. QOL models constructed for the community-dwelling elderly with ikigai (purpose in life) as a composition factor, and the effect of habitual exercise. *J Physiol Anthropol Appl Human Sci* 2005; 24:525-33.
9. Acree LS, Longfors J, Fjeldstad AS et al. Physical activity is related to quality of life in older adults. *Health Qual Life Outcomes* 2006; 4:37.
10. Avlund. Falls in older people: epidemiology, risk factors and strategies for prevention. *Age Ageing.* 2006; 35:37-41.

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