

**QUALITY OF LIFE OF ELDERLY PEOPLE ACCORDING TO REGULAR
PHYSICAL EXERCISE PRACTICE****QUALIDADE DE VIDA DE IDOSOS SEGUNDO A PRÁTICA REGULAR DE
EXERCÍCIO FÍSICO****CALIDAD DE VIDA DE LOS ADULTOS MAYORES SEGÚN LA PRÁCTICA
REGULAR DE EJERCICIO FÍSICO**

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ABSTRACT

Objective: to verify the quality of life of the elderly people according to regular physical exercise practice. **Method:** cross-sectional study carried out with 63 elderly people registered in a Basic Health Unit in a city in the interior of Minas Gerais. Data were collected from May to September 2019 with validated instruments and analyzes were performed: descriptive and bivariate (Student's t test) ($p < 0.05$). **Results:** the elderly who practiced regular physical exercise had higher averages in the physical ($p < 0.001$), social relationships ($p = 0.002$), environment ($p < 0.001$) domains; as in the self-assessment of quality of life ($p = 0.001$); satisfaction with their own health ($p = 0.003$), and quality of life total score ($p < 0.001$) when compared to those who did not have this habit of life. **Conclusion:** the practice of regular physical exercises can contribute to a better quality of life for the elderly population.

Descriptors: Quality of Life; Health of the Elderly; Exercise.

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RESUMO

Objetivo: verificar a qualidade de vida de idosos segundo a prática regular de exercício físico. **Método:** estudo transversal realizado com 63 idosos cadastrados em uma Unidade Básica de Saúde de um município no interior de Minas Gerais. Os dados foram coletados de maio a setembro de 2019 com instrumentos validados e realizadas as análises: descritiva e bivariada (Teste t de Student) ($p < 0,05$). **Resultados:** Os idosos que praticavam exercício físico regular apresentaram maior média nos domínios: físico ($p < 0,001$), relações sociais ($p = 0,002$) e meio ambiente ($p < 0,001$); tal como na autoavaliação da qualidade de vida ($p = 0,001$); na satisfação com a própria saúde ($p = 0,003$) e no escore total de qualidade de vida ($p < 0,001$) quando comparados àqueles que não tinham esse hábito de vida. **Conclusão:** a prática de exercícios físicos regulares pode contribuir para uma melhor qualidade de vida da população idosa. **Descritores:** Qualidade de Vida; Saúde do Idoso; Exercício Físico.

RESUMEN

Objetivo: analizar la calidad de vida de los adultos mayores según la práctica regular de ejercicio físico. **Método:** estudio transversal realizado con 63 adultos mayores inscritos en una Unidad Básica de Salud de una ciudad del interior de Minas Gerais. Los datos se recolectaron de mayo a septiembre de 2019 con instrumentos validados y se realizaron los análisis: descriptivos y bivariados (prueba t de Student) ($p < 0,05$). **Resultados:** los adultos mayores que practicaban ejercicio físico regularmente presentaron promedios más altos en los dominios: físico ($p < 0,001$), relaciones sociales ($p = 0,002$) y medio ambiente ($p < 0,001$); y en la autoevaluación de la calidad de vida ($p = 0,001$); satisfacción con su salud ($p = 0,003$) y puntaje total de calidad de vida ($p < 0,001$); en comparación con los que no tenían ese hábito de vida. **Conclusión:** la práctica de ejercicio físico regular puede contribuir a que la población de adultos mayores tenga una mejor calidad de vida. **Descritores:** Calidad de Vida; Salud del Adulto Mayor; Ejercicio Físico.

INTRODUCTION

Among several existing groups in the social environment, the elderly population has been growing exponentially in Brazil and around the world. Currently, the life expectancy of the Brazilian is 75.8 years with variations between the genders. This demographic transition with a drop in mortality is due to the incorporation of advances in medicine and public health policies.¹

Aging causes changes and influences the quality of life (QOL) of the elderly. Physical exercise can be used as a method to improve and contribute to this process

and bring numerous benefits, helping with cognition, respiratory and cardiac function, muscle strength, in addition to preventing the onset of diseases, thus contributing to a better QOL.²

The QOL of the elderly may vary according to the region and cultural context in which they live. In one study, it was found that, in general, the age group with the best QOL is from 60 to 69 years old, decreasing with each decade; consequently, less than half of the elderly aged 80 years or older had an adequate level of QOL.³ With the aging of the population, the State must be prepared to guarantee comprehensive

care, recognizing the characteristics and specificities of the elderly, consecrating their QOL.⁴

The assessment of QOL is a way of considering the different aspects and circumstances of the context in which the individual is inserted. It analyzes the being in its entirety, as the conditions of physical and psychological health, independence in daily activities, relationships with society, environment and spirituality.⁵ This term is often studied, being understood as an eminent condition of humanity, where it also addresses aspects such as family, love, social and environmental life, being a broad construct with multiple meanings.⁶

QOL can be defined as “the individual's perception of his position in life in the context of the culture and value system in which he lives and in relation to his goals, expectations, standards and concerns”, considering the nature of the being that is inserted in a cultural and social scenario, taking into account other factors such as past experiences, health conditions and the environment.⁷

In order to measure the individuals' QOL, there are several validated questionnaires, including the World Health Organization Quality of Life-brief (WHOQOL-BREF), which was developed by the WHO⁷ and validated in Brazil.⁸

One study presented the benefits acquired with the regular practice of

physical activity in the physical, mental and social domains of elderly women, and this practice was a condition for healthy aging and better QOL.⁹ Therefore, the use of a validated instrument will support the results to be investigated.

With the hypothesis that the regular practice of physical exercise positively influences the QOL of the elderly, it is considered important to carry out research aimed at comparing results between elderly people who perform physical exercises with those who do not perform it. Knowing such information is important to assist the health team in encouraging the practice of physical exercises for the elderly during primary care assistance. In view of this, this study aims to verify the quality of life of the elderly according to the regular practice of physical exercise.

METHOD

This is a quantitative, descriptive, exploratory and cross-sectional study, carried out in a Basic Health Unit (BHU) in a city in the interior of Minas Gerais.

Non-probabilistic convenience sampling was performed, that is, elderly people who attended the aforementioned UBS were invited to participate in the study. The inclusion criteria were: being of age greater than or equal to 60 years and residing in the area covered by the aforementioned UBS. Elderly people with

neurological diseases and physical conditions with functional dependence that could make it difficult to participate in the research were excluded.

The final sample consisted of 63 elderly people, from which 23 were part of the group that practiced physical exercise (such as gymnastics and circuit activities) regularly (at least twice a week, for three months); and 40 elderly were allocated to the group that did not practice physical exercise. It is worth emphasizing that physical exercises are regular practices, which differs from physical activity, which is one that does not require regularity and monitoring by a professional, such as daily activities, for example.²

Data collection took place individually, on the days when the elderly attended the UBS for medical follow-up, from May to September 2019. A questionnaire was applied to collect sociodemographic data, such as age, sex, color/race, level of education and religion.

Then, the WHOQOL-BREF instrument was used, which is an abbreviated version of the WHOQOL-100, whose answers must be based on the last two weeks prior to the interview. The instrument consists of 26 questions, two of which are general questions and the others comprise four domains: physical, psychological, social relationships and environment.⁸

Regarding the general questions, the first one refers to the self-assessment of QOL and has the following answer options: “very bad”, “bad”, “neither bad nor good”, “good” and “very good”. The second assesses satisfaction with their own health, whose options are: “very dissatisfied”, “dissatisfied”, “neither satisfied nor dissatisfied”, “satisfied” and “very satisfied”.⁸

For data analysis, we used the *PSPP Statistical Analysis Software* version 1.2.0 - 2018. The Kolmogorov-Smirnov test was used to test normality, calculating the absolute and relative frequencies of sociodemographic variables and calculating the mean and standard deviation of the WHOQOL-BREF domains after its syntax. Levene's Test for Equality of Variances and the inferential statistical analysis by Student's t test were performed, in order to certify the existence of significant differences between the groups surveyed, with confidence interval adopted being 5%, with $p < 0,05$.

The study was approved by the Research Ethics Committee of the Federal University of Triângulo Mineiro, Opinion number 3,290,669 of 04/29/2019, in accordance with Resolution 466/2012 of the National Health Council.¹⁰ The elderly were approached by the assistant researchers, who explained the purpose of the investigation and that their participation

would be completely voluntary and anonymous; after acceptance, they signed the Free and Informed Consent Term. The confidentiality of the information was maintained, as the identification of the subjects was carried out through codes.

RESULTS

It is observed in table 1 that in both groups there was female predominance, aged between 60 and 69 years, white color/race, catholic religion and incomplete elementary school.

Table 1. Sociodemographic characteristics of the elderly according to the regular practice of physical exercise. Minas Gerais, Brazil, 2019.

Variables		Elderly people who exercised n (%)	Elderly people who did not exercise n (%)
Gender	Female	22(95.7)	25(62.5)
	Male	1(4.3)	15(37.5)
Age Group	60 to 69	13(56.5)	24(60.0)
	70 to 79	9(39.2)	14(35.0)
	80 or above	1(4.3)	2(5.0)
Color/race	White	10(43.4)	24(60.0)
	Mulatto / Brown	8(34.8)	14(35.0)
	Black	5(21.8)	2(5.0)
Religion	Catholic	9(39.1)	23(57.5)
	Spiritist	8(34.8)	7(17.5)
	Evangelical	2(8.8)	2(5.0)
	Others	4(17.3)	8(20.0)
Level of education	incomplete elementary school	11(47.9)	28(70.0)
	Complete primary education	7(30.4)	5(12.5)
	Incomplete high school	1(4.3)	3(7.5)
	Complete high school	2(8.7)	2(5.0)
	Complete higher education	2(8.7)	2(5.0)

Source: Authors

Table 2 presents the means and standard deviation of the WHOQOL-BREF questionnaire for the two groups of elderly people. It is possible to observe that the elderly who practiced regular physical exercise showed greater mean in the physical ($p<0.001$), social relationships

($p=0.002$) and environment ($p<0.001$) domains; in the self-assessment of quality of life ($p=0.001$); in satisfaction with their own health ($p=0.003$) and in the total quality of life score ($p<0.001$) when compared to those who did not have this life habit.

Table 2. Quality of life of elderly people according to regular physical exercise. Minas Gerais, Brazil, 2019.

Variables	Elderly people who exercised		Elderly people who did not exercise		t*	P**
	Average	Standard deviation	Average	Standard deviation		
QOL self-assessment	4.26	0.54	3.63	0.93	3.44	0.001
Satisfaction with own health	3.91	0.73	3.15	1.05	3.07	0.003
Physical Domain	71.43	14.00	55.27	17.77	3.74	0.000
Psychological Domain	73.01	11.84	67.19	16.69	1.61	0.113
Domain Social Relations	75.36	13.64	60.83	19.17	3.19	0.002
Environment domain	67.80	11.01	56.46	11.34	3.86	0.000
Total score	77.17	13.41	59.69	22.38	3.88	0.000

*Student's t test. **p<0.05.

Source: Authors

Table 3 indicates how the elderly self-assessed their QOL. The option with the highest percentage of response was “good” for both groups, however it is noted that in

the group of elderly people who practiced physical exercise, none selected the options “very bad” and “bad”.

Table 3. Self-assessment of the Quality of Life of the elderly according to the regular practice of physical exercise. Minas Gerais, Brazil, 2019.

Answer category	Elderly people who exercised	Elderly people who did not exercise
	n (%)	n (%)
Too bad	0 (0.0)	1 (2.5)
Bad	0 (0.0)	3 (7.5)
Neither bad nor good	1 (4.4)	12 (30.0)
Good	15 (65.2)	18 (45.0)
Very good	7 (30.4)	6 (15.0)

Source: Authors

Table 4 shows how the elderly assessed their satisfaction with their own health. The options “very dissatisfied” and “dissatisfied” were not answered by any elderly person in the group who practiced

physical exercise, whose highest percentage of response was for “satisfied”. While for the group of elderly people who did not exercise, the highest percentage was for the answer “neither satisfied nor dissatisfied”.

Table 4. Satisfaction of the elderly in relation to their own health. Minas Gerais, Brazil, 2019.

Answer category	Elderly people who exercised n (%)	Elderly people who did not exercise n (%)
Very unsatisfied	0 (0.0)	3 (7.5)
Dissatisfied	0 (0.0)	7 (17.5)
Neither satisfied nor dissatisfied	7 (30.4)	14 (35.0)
Pleased	11 (47.8)	13 (32.5)
Very satisfied	5 (21.8)	3 (7.5)

Source: Authors

DISCUSSION

The highest percentage of elderly women is consistent with other studies that evaluated the QOL of elderly people according to the practice of physical exercise¹¹⁻¹² and in the age group from 60 to 69 years.¹¹

Regarding the level of education, this research found most of the elderly with incomplete elementary education. In a study carried out in Goiás¹¹, the elderly in the exercise group were similar in the categories of elementary, secondary and higher education, which ranged from 30 to 35% in each, while in the group that did not exercise, illiterate and elementary school prevailed.

The regular practice of physical exercise has a positive effect on a better QOL, as evidenced in the present research, corroborating the study² whose elderly practitioners of physical exercises obtained higher averages in the four domains of the WHOQOL-BREF and in the facets: functioning of the senses, autonomy and social participation of the WHOQOL-OLD

instrument, also with significant differences related to those who did not practice.

Physical exercise promotes active aging, increasing the QOL of the aged, preventing cardiovascular and systemic diseases from emerging, prolonging their healthy life span.¹³

Another positive factor is that older people who performed physical exercises reported feeling more self-confident and secure, collaborating with autonomy, improving the body's motor functions and better social relationships, avoiding isolation and depressive diseases at this stage of life, contributing positively to QOL.⁹

The practice of physical exercises for the elderly who participate in community programs has significantly better indicators, especially when monitoring the exercises taking into account the frequency, duration and type of training performed.¹⁴ However, the practice of physical activity that is performed daily, where they are not regular and do not require follow-up by the professional, also show positive results,

improving the functional balance of the older adults.¹⁵

A study investigated the understanding of the elderly about the effects of physical exercise and found that a group of older people who trained regularly showed to be motivated to perform, seeking the positive effects on health and socialization and demonstrated to understand the benefits that a physical activity program provides on physical and mental health. These elderly people expressed feelings of well-being when performing physical movements, favoring autonomy to perform activities of daily living and better social interaction.¹⁶

A sedentary lifestyle, especially for the aged, is one of the main risk factors for the development of chronic diseases, such as cardiovascular diseases, which are prevalent in the elderly population. These diseases influence the decrease in QOL since it reduces the individual's functional capacity.

A study¹¹ compared the total score and the QOL self-assessment and satisfaction with one's own health questions from the WHOQOL-BREF and found that the active elderly had higher averages than the elderly in the control group, that is, those who did not practice physical exercise, corroborating the findings of this research.

A systematic review analyzed 12 articles and concluded that physical exercises, with an emphasis on multicomponent training regularly two to three times a week, had beneficial effects for frail elderly people in physical, cognitive and QOL aspects.¹⁷

In general, when comparing the QOL among the elderly who practice physical exercise on a regular basis with sedentary ones, those who perform physical exercise demonstrate a better QOL.¹⁸ A study showed that the QOL of the older adults largely depends on the way they understand their personal life in the individual's uniqueness through factors and possible past events that directly influence their QOL perception.²

A study carried out with 97 elderly people who performed activities linked to Health, Elderly Care and University Units found that the elderly QOL was considered good and they believe that such collective activities should be stimulated by public policies aimed at meeting the needs of the elderly.¹⁹

The results of this study demonstrate that the QOL of the older adults can be influenced by the practice of physical exercise, noting the importance of improving public policies and health education actions aimed at the elderly population. It is observed that there is currently a greater amount of research

related to aging, so it is extremely important that more sophisticated and well-defined studies are carried out.²⁰

The practice of physical exercises can provide the aged with a healthier aging process with greater social interaction, preservation of cognition and better ability to carry out their activities of daily living.

It is known that the practice of regular physical exercise is essential for the biopsychosocial QOL of the elderly, being a low-cost and high-impact activity that contributes to the insertion of the individual in society, promotes autonomy, increases self-esteem and reduces diseases and injuries. It is pertinent that health professionals recognize the magnitude of encouraging the practice of regular physical exercise in the elderly during consultations and health promotion actions.

CONCLUSIONS

In the assessment of QOL using the WHOQOL-BREF instrument, the elderly who practiced physical exercise regularly had higher averages in all domains evaluated, with statistically significant differences for the domains: physical, social relationships, environment, total score, in the self-assessment of QOL and satisfaction with their own health than the ones who did not practice.

As a limitation, the small and convenience sample stands out, belonging

to the scope of a single BHU in the city, not allowing the generalization of the results found.

However, it is substantial that the practice of physical exercises for the elderly is encouraged as a necessary action for the prevention and promotion of their health, and it is essential that public policies motivate and invest in the regular practice of physical training for this population group.

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