

## QUALITY OF LIFE OF ELDERLY PEOPLE WHO PRACTICE PHYSICAL ACTIVITIES

Qualidade de vida de idosos que praticam atividade física

Calidad de vida de idiomas que practican actividad fisica

Barbara Lopes Almeida<sup>1</sup>, Maria Eduarda Borém Fernandes Souza<sup>2</sup>, Fernanda Cardoso Rocha<sup>3</sup>, Tatiana Fróes Fernanes<sup>4</sup>, Christiane Borges Evangelista<sup>5</sup>, Karine Suene Mendes Almeida Ribeiro<sup>6</sup>

### How to cite this article:

Almeida BL, Souza MEBF, Rocha FC, Fernanes TF, Evangelista CB, Ribeiro KSMA. Quality of life of elderly people who practice physical activities. Rev Fun Care Online. 2020 jan/dez; 12:432-436. DOI: <http://dx.doi.org/10.9789/2175-5361.rpcfo.v12.8451>.

### ABSTRACT

**Objective:** To evaluate the quality of life of the elderly who practice physical activities. **Methodology:** The sample was composed of 37 elderly persons. A mini mental pre-test was applied. The inclusion and exclusion criteria were defined for the identification of the final sample based on the results of the questionnaire WHOQOL-OLD. The data was analyzed using EXCEL 2010. **Results:** The study showed that elderly engaged in physical activity intending to improve the quality of life observing that the majority are female. **Conclusion:** This study can help in the development of health care approaches based on better understanding of the questions that influence the quality of life of the elderly helping with the decreased self-esteem.

**Keywords:** Physical activity; Old man; Quality of life; Aging, Health.

### RESUMO

**Objetivo:** Avaliar a qualidade de vida dos idosos que praticam atividade física. **Metodologia:** Amostra foi composta por 37 idosos em envelhecimento. Foi aplicado um pré- teste, o mini mental. Os critérios de inclusão e exclusão foram para a obtenção da amostra final, obtida a partir da aplicação do questionário WHOQOL – OLD. Foram analisados através do programa EXCEL 2010. **Resultados:** O estudo mostrou que a prática da atividade física com idosos teve o intuito de uma qualidade de melhor, observando-se que a prevalência é do sexo feminino. **Conclusão:** Este estudo pode ajudar na elaboração de ações em saúde, a partir da melhor compreensão

- 1 Graduated in Nursing from the Faculdades Unidas do Norte-FUNORTE. Montes Claros (MG). Brazil.
- 2 Graduated in Nursing from the United-North Faculty-FUNORTE. Montes Claros (MG). Brazil.
- 3 Psychologist graduated from the Faculty of Health Ibiturna-FASI. Specialist in Family Health. Specialist in Methodology and Didactics of Higher Education. Specialist in Hospital Psychology. Montes Claros (MG). Brazil.
- 4 Nurse graduated from the State University of Montes Claros-UNIMONTES. Master in Health Sciences by Unimontes. Lecturer at the State University of Montes Claros in the departments of Nursing and Mental and Collective Health. Montes Claros (MG). Brazil.
- 5 Nurse graduated from the Federal University of Minas Gerais - UFMG. Master of Science from the Paulista School of Nursing / Federal University of São Paulo - UNIFESP. Specialist in Family Health. Professor at the United Colleges of North Minas and Ibituruna Health School - FUNORTE / FASI and at the undergraduate courses in Medicine and Nursing at the State University of Montes Claros - UNIMONTES. Montes Claros (MG). Brazil.
- 6 Nurse graduated from the State University of Montes Claros-UNIMONTES. Master of Science from the Federal University of São Paulo. Montes Claros (MG). Brazil.

das questões que influenciam a qualidade de vida dos idosos, devido à diminuição da autoestima.

**Descritores:** Atividade física; Idoso; Qualidade de vida; Envelhecimento. Saúde.

## RESUMÉN

**Objetivo:** Evaluar la calidad de vida de los ancianos que practican actividad física. **Metodología:** La muestra fue compuesta por 37 ancianos en envejecimiento. Se aplicó un pre-test, el mini mental. Los criterios de inclusión y exclusión fueron para la obtención de la muestra final, obtenida a partir de la aplicación del cuestionario WHOQOL - OLD. Se analizaron a través del programa EXCEL 2010. **Resultados:** El estudio mostró que la práctica de la actividad física con ancianos tuvo el propósito de una calida de vida mejor, observándose que la prevalencia es del sexo femenino. **Conclusión:** Este estudio puede ayudar en la elaboración de acciones en salud, a partir de la mejor comprensión de las cuestiones que influncian la calidad de vida de los ancianos, debido a la disminución de la autoestima.

**Descritores:** Actividad física; Personas de edad avanzada; Calidad de vida; Envejecimiento; Salud.

## INTRODUCTION

Over the years, Brazil has shown a significant decline in fertility rate, thus changing its populational profile, visibly moving from a predominantly young population to an elderly population.<sup>1</sup>

The aging process entails numerous body changes, such as decreased body weight, height and muscle mass, and such changes directly influence the health of the elderly.<sup>2</sup>

Related to such a change in the Brazilian population profile are the causes of disease and mortality, moving over the years from the dominance of infectious diseases to a predominance of Chronic Noncommunicable Diseases (NCDs), becoming considered a serious public health problem.<sup>3</sup>

Among the most frequent NCDs affecting the elderly are Systemic Arterial Hypertension (SAH) and Diabetes Mellitus (DM), which are considered as triggers of renal complications, heart and cerebrovascular diseases, leading to an increase in medical and socioeconomic costs for both the government and for the individual, mainly due to their complications. Moreover, other diseases such as cancer, respiratory, mental and inflammatory rheumatic diseases compromise the quality of life of the elderly.<sup>4</sup>

Based on this assumption, the concept of quality of life is closely linked to self-esteem and personal well-being, including functional capacity, socioeconomic status, emotional state, social interaction, intellectual activity, self-care, family support, one's state of health, cultural, ethical values and religiosity.<sup>5</sup>

Quality of health at an advanced age is understood as a set of interconnected and systematic actions performed by the individual daily, such as: good eating habits, correct use of medicines and the practice of regular physical activities.<sup>6</sup>

Considering all the benefits promoted by the regular practice of physical activity, changes in the locomotor system that occur due to aging that cause the loss of balance, bone fragility, joint pain and decreased function can be minimized through regular physical exercise.<sup>7</sup> It is hypothesized that this would be an alternative for improving the quality of life of the elderly, as it helps maintain the greatest possible vigor in the practitioner, improves the function in various activities and increases the quality of life as one gets older. Another benefit promoted by exercise is the improvement of organic and cognitive functions, ensuring greater personal independence and preventing disease.

This study aimed to evaluate the quality of life of elderly people who practice physical activity.

## METHODOLOGY

This is a quantitative, descriptive, prospective and cross-sectional study. The study population consisted of a group of 37 elderly people who practice physical activity, water aerobics and gym. The inclusion criteria that comprised the population of this study was elderly aged 55 years or older who have an indication for the practice of sports and similar, for both females and males, with the duration of physical activity time above three months.

The criteria that were used for exclusion were the elderly with cognitive impairment, measured using mental state assessment questionnaire (mini mental), and those who refused to participate in the study, and did not sign the Informed Consent Form (ICF).

The initial instrument used was the cognitive assessment questionnaire known as the mini mental (MMSE). It is a test used to assess cognitive function.<sup>8</sup> The MMSE questionnaire evaluated various characteristics (spatial, temporal orientation, immediate and recall memory, calculus, language-naming, repetition, comprehension, writing and drawing copy), and the interpretation of the results will meet the following criteria: after analyzing the mini-mental questionnaire, the data collection instrument used was the WHOQOL-OLD questionnaire model, validated for clinical research with humans. The WHOQOL-OLD questionnaire consists of 24 questions divided into six phases.<sup>9</sup>

This study complied with all the recommendations of the National Health Council Resolution 466/2012, and was submitted and approved by the Ethics Committee of the United Colleges of Northern Minas (FUNORTE), under opinion 2,224,464.

The survey was conducted with elderly users of two units of the Family Health Strategy (FHS) in a city located in the north of Minas Gerais, in September 2017. After collecting the data were stored in a spreadsheet using Microsoft Excel 2010 program, following the syntax proposed by Whoqol-old.<sup>10</sup>

## RESULTS

Thirty-seven aging people participated in this study. As shown in Table 1, 21.62% were male and 78.37% female. Of the elderly interviewed, 2.77% were practitioners of physical activity over a period of 3 months to 11 months. 64.86% were practitioners of physical activity from 12 months to 5 years. 9.2% were practitioners of physical activity for over 5 years. Most seniors were female. 78.37% perform physical activity aiming at a better quality of life. We observed that the prevalence is female, which always increases longevity.

**Table 1 -** Characterization of the study participants according to Gender, Schooling and duration of physical activity, Bocaiúva - MG. September 2017.

Variable	Nº	%
<b>Gender</b>		
F	29	78,37
M	8	21,62
<b>How long engaged in physical activities</b>		
3 a 11 months	3	2,77
12 months to 5 yrs	24	64,86
> 5 yrs	10	9,2
<b>Education</b>		
Illiterate	2	1,85
Elementary School	14	37,83
High school	10	27,02
Complete Higher Education	11	29,72

Source: Study data.

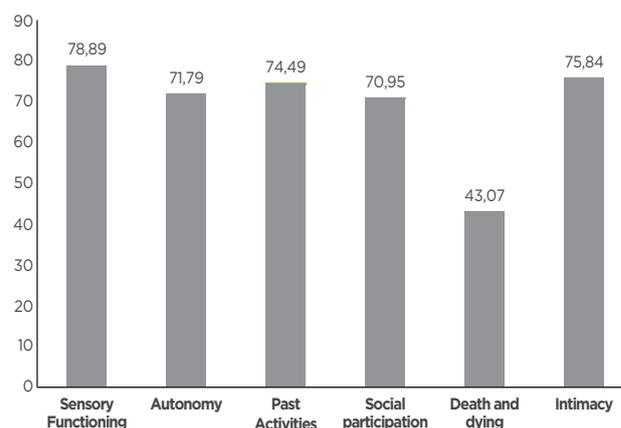
**Table 2 -** Mean, standard deviation, minimum value and maximum value.

FACETS	Average	STD Deviation	Var. Coeficient	Min	Max	Amplitude
Sensory Functioning	16,62	2,24	13,48	12,00	20,00	8,00
Autonomy	15,49	2,13	13,75	10,00	20,00	10,00
Past, present and future activities	15,92	1,91	11,97	10,00	19,00	9,00
Social participation	15,35	1,62	10,55	12,00	19,00	7,00
Death and dying	10,89	4,07	37,41	4,00	17,00	13,00
Initiation	16,14	2,64	16,34	11,00	20,00	9,00
<b>TOTAL</b>	15,07	1,43	9,50	12,00	17,50	5,50

Source: Scores calculation and descriptive statistics of WHOQOL-OLD instruments using Microsoft Excel 2010.

Regarding the six facets evaluated by WHOQOL-OLD, it appears that the percentage of quality of life in relation to the sensor (which was 78.89%), was the one that showed a better quality of life, followed by intimacy, at 75.84%; third, past activities with 74.49%; autonomy, with 71.79%; social participation, with 70.95%; and lastly, death and dying, with 43.07% (Graph 1).

**Graph 1 -** Quality of life of study participants according to the six facets of WHOQOL-OLD, Bocaiúva - MG. September 2017



Source: Scores calculation and descriptive statistics of WHOQOL-OLD instruments using Microsoft Excel 2010.

Regarding the average of each of the evaluated facets, the functioning of the sensory was 16.62%, the standard deviation of 2.24%, the coefficient of variation of 13.48%, the minimum value of 12%, maximum value of 20% and the amplitude of 8%. In autonomy, the average value of 15.49%; the standard deviation of 2.13%, the coefficient of variation of 13.75%, the minimum value of 10%, the maximum value of 20% and the amplitude of 10%. In the past, present and future activities the average was 15.92%, the standard deviation 1.91%, the coefficient of variation 11.97%, the minimum 10%, the maximum 19% and the amplitude 9%. Social participation with mean deviation 15.35%, standard deviation 1.62%, coefficient of variation 10.55%, minimum value 12%, maximum value 19% and amplitude 7%. Death and dying mean 10.89%, standard deviation 4.07%, coefficient of variation 37.41%, minimum value 4%, maximum value 19% and amplitude 13%. Intimacy, average value 16.14%, standard deviation 2.64%, coefficient of variation 16.34%, minimum value 11%, maximum value 20% and amplitude 9%.

## DISCUSSION

It is noticeable that female participation in physical activity is higher, since men consider some activities inappropriate, because of how exhausting they are or are considered to interfere with masculinity, as well as due to the belief in male invulnerability, which leads to a deficit in self-care. The practice of physical activity improves the life of the elderly because it causes greater family bond both in friendship, in leisure, changes in daily life, in addition to motor physical conditions and general health.<sup>11</sup>

With regard to education, it is important to point out that most of the elderly surveyed have completed higher education, since the level of education is directly related to the level of physical activity practiced. Older people with less education cannot understand the risks of sedentary lifestyle, making it difficult to motivate for changes in lifestyle.<sup>12</sup>

The quality of life of the elderly includes mainly the maintenance of functional capacity, autonomy and independence. Other components include flexibility, strength, and balance in the performance of everyday activities safely. The functioning of the sensory system is constituted by the preservation of the senses, represented by hearing, smell, sight, taste and touch, since the loss of such senses can interfere with the participation of the elderly in the practice of physical activities and in the ability to interact, disability in self-care and thus impairing their quality of life.<sup>13</sup>

Past, Present and Future activities were one of the areas that contributed most in the lives of the elderly. The opportunity to be satisfied with their accomplishments and to love and be loved has an important influence on the quality of life, with no restrictions in terms of age.<sup>14</sup>

Older people who are regularly involved in community activities have lower risk of developing any pathology or disability. Highlights include progress in quality of life, increased education, healthier lifestyles, greater coverage of

public health actions and medical care to prevent cognitive decline and death.<sup>15</sup>

When asked about death, most respondents demonstrated the fear of dying, which is reaffirmed in several studies.<sup>16</sup> At this stage of life, it is normal for them not to accept death, rejecting it, refusing old age because they realize that it is the phase that comes closest to the end.

High level of intimacy in the life of the elderly is of paramount importance. Some authors affirm that healthy life in old age is directly related to intimacy, companionship and the ability to express feelings.<sup>17</sup> It is emphasized that training activities on dealing with intimate relationships with the elderly and their families must be thematic and need a delicate approach.<sup>18</sup>

Thus, the quality of life in old age and the results of its evaluation should be planned in health promotion strategies for the elderly and intervene to remove the difficulties already in place.<sup>19</sup>

## CONCLUSIONS

This study helps in the elaboration of health actions, considering the properties of the aging process, based on a better understanding of the issues that influence the quality of life of the elderly, due to decreased self-esteem.

The elderly who practice physical activity showed good quality of life in all facets validated, except for 'death and dying', which stands at 43.07%.

Health promotion actions should be implemented to work towards improving self-esteem of this public, which sees itself at the end of life and lives with the loss of close people. This study opens gaps for others seeking to compare the quality of life of older adults who practice physical activities and those who do not practice physical activity.

The main limitation of this study was that it was restricted to two FHS units, not covering realities of other units and other services. Thus, it is necessary to carry out new research focusing on the theme but considering using new fields of study. The data collected may support relevant policies aimed at the researched public and the implementation of new proposals linked to the quality of life of the elderly population.

## REFERENCES

1. Cavalli AS, Pogorzelski LV, Domingues MR, Afonso MR, Ribeiro JAB, Cavalli MO. Motivação de pessoas idosas para a prática de atividade física: estudo comparativo entre dois programas universitários – Brasil e Portugal. *Revista Brasileira de Geriatria e Gerontologia* [Internet]; 2014 [Accessed 10 March 2017]; 17(2): 255-264. <http://www.scielo.br/pdf/rbagg/v17n2/1809-9823-rbagg-17-02-00255.pdf>
2. Silva AS, Goulart NBA, Lanferdini FJ, Marchcon M, Dias C. P. Relação entre os níveis de atividade física e qualidade de vida de idosos sedentários e fisicamente ativos. *Revista Brasileira de Geriatria e Gerontologia* [Internet]. 2012 [Accessed 10 March 2017]; 15(4):635-642. <http://dx.doi.org/10.1590/S1809-98232012000400004>.
3. Mourão AS, Neves DA, Liberalesso A, Fontes K. Estudo da associação entre doenças crônicas naturais do envelhecimento e alterações da deglutição referidas por idosos da comunidade. *Audiology-Communication Research* [Internet]. 2016 [Accessed 03 March 2017]; 21(1657):1-8. <http://www.scielo.br/pdf/acr/v21/2317-6431-acr-2317-6431-2015-1657.pdf>

4. Barreto MS, Carreira L, Marchcon SS. Envelhecimento populacional e doenças crônicas: Reflexões sobre os desafios para o Sistema de Saúde Pública. *Revista Kairós: Gerontologia* [Internet]. 2015 [Accessed 11 March 2017]; 18(1):325-339. <https://revistas.pucsp.br/index.php/kairos/article/viewFile/26092/18731>
5. Campos ANV, Cordeiro EC, Rezende GP, Vargas AMD, Ferreira EF. Qualidade de vida de idosos praticantes de atividade física no contexto da estratégia saúde da família. *Texto & Contexto Enfermagem* [Internet]. 2014 out-dez [Accessed 11 March 2017]; 23(4): 889-97. [http://www.scielo.br/pdf/tce/v23n4/pt\\_0104-0707-tce-23-04-00889.pdf](http://www.scielo.br/pdf/tce/v23n4/pt_0104-0707-tce-23-04-00889.pdf)
6. Gardone DS, Ribeiro SMR, Silva RR, Marchitino HSD. Impacto da intervenção nutricional na ESF. *Nutrire: Revista da Sociedade Brasileira de Alimentação e Nutrição* [Internet]. 2012 [Accessed 11 March 2017]; 37(3): 245-258. [http://sban.cloudpainel.com.br/files/revistas\\_publicacoes/369.pdf](http://sban.cloudpainel.com.br/files/revistas_publicacoes/369.pdf)
7. Pedrinelle A, Garcez-Leme LE, Nobre RDSA. O efeito da atividade física no aparelho locomotor do idoso. *Revista Brasileira de Ortopedia* [Internet]. 2009 [Accessed 12 March 2017]; 44(2): 96-101. <http://dx.doi.org/10.1590/S0102-36162009000200002>.
8. Folstein MF, Folstein SE, & McHugh PR. Mini-Mental State. A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatry Research* [Internet]. 1975 [Accessed 12 March 2017]; 12(3): 189-198. [http://home.uchicago.edu/~tmurray1/research/articles/printed%20and%20read/mini%20mental%20state\\_a%20practical%20method%20for%20grading%20the%20cognitive%20state%20of%20patients%20for%20the%20clinician.pdf](http://home.uchicago.edu/~tmurray1/research/articles/printed%20and%20read/mini%20mental%20state_a%20practical%20method%20for%20grading%20the%20cognitive%20state%20of%20patients%20for%20the%20clinician.pdf)
9. Fleck MPDA, Leal OMF, Louzada SN, Xavier MK, Chachamovich E, Vieira GM, Pinzon V. Desenvolvimento da versão em português do instrumento de avaliação de qualidade de vida da Organização Mundial da Saúde – WHOQOL – 100, 1999. *Revista Brasileira de Psiquiatria* [Internet]. 1999 [Accessed 21 March 2017]; 21: 19-28. <http://www.scielo.br/pdf/0D/rbp/v21n1/v21n1a06.pdf>
10. Pedroso B. Calculation of scores and descriptive statistics for WHOQOL instruments using Microsoft Excel. *Atividade Física y Ciencias* [Internet]. 2010 jul-dez [Accessed 21 March 2017]; 2(2): 1-23. <file:///C:/Users/Greg/Downloads/5618-13727-1-PB.pdf>
11. Medeiros AP, Streit IA, Sandreschi PF, Fortunato AR, Mazo GZ. Participação masculina em modalidades de atividades físicas de um Programa para idosos: um estudo longitudinal. *Ciências & Saúde Coletiva* [Internet] 2014 [Accessed 04 Nov, 2017]; 19(8). [https://www.scielo.org/scielo.php?pid=S1413-81232014000803479&script=sci\\_arttext&tlng=en](https://www.scielo.org/scielo.php?pid=S1413-81232014000803479&script=sci_arttext&tlng=en)
12. Macedo RM, Oliveira MDRP, Cilião MR, Prosdócimo ACG, de Macedo ACB, França D, Costantini CR. Nível de atividade física de idosos participantes de um programa de prevenção de doença cardiovascular. *Associação Brasileira de Fisioterapia Cardiorespiratória e Fisioterapia em Terapia Intensiva Ciência* [Internet]. 2016 [Accessed 04 Nov, 2017]; 6(3): 11-20. <http://www.uel.br/revistas/uel/index.php/rebrafis/article/viewFile/20901/17843>
13. Adamo UO, Esper MT, Bastos GCFC, Sousa IF, Almeida RJ. Universidade aberta para a terceira idade: o impacto da educação continuada na qualidade de vida dos idosos. *Revista Brasileira de Geriatria e Gerontologia* [Internet] 2017 [Accessed 26 Oct, 2017]; 20(4): 550-560. <http://dx.doi.org/10.1590/1981-22562017020.160192>
14. Bazzanella NAL, Piccoli JCJ, Quevedo DM. Qualidade de vida percebida e atividade física: um estudo em idosos acima de 80 anos participantes de um programa municipal de saúde da terceira idade na Serra Gaúcha, RS. *Estudos Interdisciplinares sobre o Envelhecimento* [Internet]. 2015 [Accessed 26 Oct, 2017]; 20(1):249-270. <https://seer.ufrgs.br/RevEnvelhecer/article/viewFile/48949/34933>
15. Pinto JM, Neri AL. Trajetórias da participação social na velhice: uma revisão sistemática da literatura. *Revista Brasileira de Geriatria e Gerontologia* [Internet]. 2017 [Accessed 24 Oct, 2017]; 20(2): 260-273. <http://dx.doi.org/10.1590/1981-22562017020.160077>
16. Menezes OTM, Lopes MRL. Significados do vivido pela pessoa idosa longeva no processo de morte/morrer e luto. *Ciência & Saúde Coletiva* [Internet]. 2014 [Accessed 25 Oct, 2017]; 19(8): 3309-3316. [https://www.scielo.org/scielo.php?pid=S1413-81232014000803309&script=sci\\_arttext&tlng=en](https://www.scielo.org/scielo.php?pid=S1413-81232014000803309&script=sci_arttext&tlng=en)
17. Viana LS, Aguiar MIF, Silva IR, Coutinho NPS, Aquino DMC. Relações sociais e dimensões íntimas de idosos afetados por hanseníase. *Cogitare Enfermagem* [Internet]. 2015 [Accessed 03 Nov, 2017]; 20(4): 717-724. <http://dx.doi.org/10.5380/ce.v20i4.41587>
18. Tavares DMDS, Matias TGC, Ferreira PCDS, Pegorari MS, Nascimento JS, & Paiva M MD. Quality of life and self-esteem among the elderly in the community. *Ciência & Saúde Coletiva* [Internet]. 2016 [Accessed 03 Nov, 2017]; 21(11): 3557-3564. <http://dx.doi.org/10.1590/1413-812320152111.03032016>
19. Paiva MHP, Pegorari MS, Nascimento JS, Santos ADS. Factors associated with quality of life among the elderly in the community of the southern triangle macro-region, Minas Gerais, Brazil. *Ciência & Saúde Coletiva* [Internet]. 2016 [Accessed 03 Nov 2017]; 21(11): 3347-3356. <http://dx.doi.org/10.1590/1413-812320152111.14822015>

Received in: 21/12/2018

Required revision: 21/05/2019

Approved in: 22/07/2019

Published in: 23/03/2020

**Corresponding author**

Fernanda Cardoso Rocha

**Address:** Rua São Roberto, 55, Todos os Santos

Montes Claros/MG, Brazil

**Zip code:** 39400-121

**E-mail address:** nandac.rocha@hotmail.com

**Disclosure:** The authors claim to have no conflict of interest.