

Original Article

Received: 18/11/2021 | Accepted: 03/02/2022

# Quality of life and functional capacity of physically active elderly people: possible relationships

Qualidade de vida e capacidade funcional de idosos fisicamente ativos: possíveis relações

Daniel Vicentini de Oliveira<sup>1</sup> Orcid: https://orcid.org/0000-0002-0272-9773

Caio Rosas Moreira<sup>3</sup> Orcid: https://orcid.org/0000-0002-5499-3568

Nathaly Assis Silva<sup>5</sup> Orcid: https://orcid.org/0000-0002-2446-6222 Priscila Martins Peres<sup>2</sup> Orcid: https://orcid.org/0000-0002-4358-5534

Daniel Aguiar Pereira<sup>4</sup> Orcid: https://orcid.org/0000-0003-3156-9892

Sherdson Emanuel Silva<sup>6</sup> Orcid: https://orcid.org/0000-0003-0802-1837

José Roberto Andrade do Nascimento Júnior<sup>7</sup> Orcid: https://orcid.org/0000-0003-3836-6967

#### Abstract

Introdução: A qualidade de vida de idosos está relacionada não apenas a atividade física, mas a diversos fatores. Objetivo: Investigar a relação entre a qualidade de vida (QV) e a capacidade funcional de idosos fisicamente ativos. Materiais e Métodos: Estudo transversal realizado com 73 idosos de ambos os sexos. Foi utilizado o Questionário Internacional de Atividade Física (IPAQ), o WHOQOL-Bref e Old, Escala de Katz e Escala de Lawton. Para análise dos dados foram utilizados os testes de Kolmogorov-Smirnov, "U" de Mann-Whitney e a correlação de Spearman. Resultados: Os idosos irregularmente ativos percebem melhor QV em relação aos aspectos psicológicos (p=0,074) e à intimidade (p=0,017) em detrimento aos idosos muito ativos/ativos. Verificou-se correlação das atividades básicas de vida diária com os domínios físico (r=0,32), psicológico (r=0,35) da QV, e as facetas de funcionamentos dos sentidos (r=0,34) e participação pessoal (r=0,35). Já as atividades instrumentais de vida diária apresentaram correlação significativa com os domínios físico (r=0,45), psicológico (r=0,52), relações sociais (r=0,34) e autoavaliação (r=0,49) da QV, e as facetas de autonomia (r=0,33), participação pessoal (r=0,46) e morte e morrer (r=0,46). Conclusão: Conclui-se que o há relação entre o aumento da capacidade funcional e o aumento da percepção de qualidade de vida em idosos fisicamente ativos.

Palavras-chave: atividade motora; exercício; gerontologia; promoção da saúde.

#### Resumo

**Introduction**: The quality of life of the elderly person is related not only to physical activity, but to several factors. **Objective**: To investigate the relationship of the quality of life level and the functional capacity of physically active elderly people. **Materials and Methods:** A cross-sectional study was carried out with 73 elderly individuals of both genders. The International Physical Activity Questionnaire (IPAQ), WHOQOL-Bref and Old, Katz Scale and Lawton Scale were used. Data were analyzed using the Kolmogorov-Smirnov and Mann-Whitney "U" tests, as well as the Spearman correlation. **Results**: Irregularly active elderly people perceive a better QOL in relation to psychological aspects (p = 0.074) and intimacy (p = 0.017) to the detriment of the very active/active elderly people. It was found a correlation

<sup>&</sup>lt;sup>7</sup> Universidade Federal do Vale do São Francisco - UNIVASF. Bahia, Brasil. E-mail: sierdsonemanoen@notinan.com



<sup>&</sup>lt;sup>1</sup> Centro Universitário Metropolitano de Maringá – UNIFAMA. Maringá/Paraná, Brasil. E-mail: d.vicentini@hotmail.com

 <sup>&</sup>lt;sup>2</sup> Centro Universitário Metropolitano de Maringá – UNIFAMA. Maringá/Paraná, Brasil.. E-mail: peres0610@hotmail.com
 <sup>3</sup> Universidade Estadual de Maringá - UEM. Maringá/Paraná, Brasil. E-mail: crosasmoreira@gmail.com

<sup>&</sup>lt;sup>4</sup> Secretaria de Educação de São Paulo, São Paulo, Brasil. E-mail: danielpaguiar@hotmail.com

<sup>&</sup>lt;sup>5</sup> Universidade Nova de Julho - UNINOVE. São Paulo/SP, Brasil. E-mail: d.vicentini@hotmail.com

<sup>&</sup>lt;sup>6</sup> Universidade Federal do Vale do São Francisco - UNIVASF. Babia, Brasil. E-mail: a.vicentin@notinan.com

between the basic activities of daily living and the physical (r = 0.32) and psychological (r = 0.35) domains of QOL, and the sense functioning (r = 0.34) and personal participation (r = 0.35) facets. On the other hand, instrumental activities of daily living showed a significant correlation with the physical (r = 0.45), psychological (r = 0.52), social relationships (r = 0.34) and self-assessment (r = 0.49) domains of QOL, and the autonomy (r = 0.33), personal participation (r = 0.46), and death and dying (r = 0.46) facets. **Conclusion**: It is concluded that there is a relationship between the increase in functional capacity and the increase in the perception of quality of life in physically active elderly people.

Keywords: motor activity; exercise; gerontology; health promotion.

#### Introduction

Aging changes can interfere with basic activities of daily living (BADLs) and instrumental activities of daily living (IADLs)<sup>1</sup>. Physical work is essential for the elderly person to be minimally able to perform these activities of daily living (ADLs) to the point of not being dependent anyone else<sup>2</sup>. Accordingly, on the performance of ADLs can be linked to different aspects of an elderly person's life, such as his/her social relationships, psychological well-being, emotions and self-assessment, thus enabling better levels of quality of life<sup>3</sup>. Nonetheless, there is a greater need to check the relationship between the functional capacity of the elderly individual and his/her perception of quality of life<sup>4</sup>, and this assessment is valuable to determine possible recommendations for reaching the third age without limitations<sup>5</sup>.

Quality of life in old age is a strictly important issue to be investigated, since it depends on multiple dimensions such as life habits, family situation, social relationships, public policies (with a focus on this population), self-perception and socioeconomic conditions<sup>6</sup>. Accordingly, investigations<sup>5,7</sup> point to the need for specific programs and services for people belonging to this population group so that they can reach this stage of life with health and quality of life.

For this purpose, intervention works focused on rehabilitation, gains and maintenance of functional capacity are extremely important for elderly individuals of all ages<sup>2</sup>. This stems from health improvements, disease prevention, reducing the risk of falls, loss of functional levels, which are fundamental factors for an autonomous and independent life in this age group<sup>6</sup>. In this way, studies that address the functional disability of the elderly population, which emphasizes the difficulty and/or dependence in carrying out daily activities of the subject, also value therapeutic programs, physical exercise modalities that aim to promote health and that can improve the capacity of the elderly individual to interfere with and act in his/her daily actions<sup>7-9</sup>.

In this way, studying the relationship the between quality of life and the functional capacity of the elderly person becomes relevant since it is important and necessary to encourage alternative practices that address the health, the physical and the psychological factors of the elderly individuals. In light of these considerations, this study had the objective of investigating the relationship between the quality of life and the functional capacity of physically active elderly people.

#### Materials and methods

This is an observational and crosssectional study, approved by the Ethics Committee in Research with Human Beings of the University Center of Maringá (UNICESUMAR, as per its Portuguese acronym) through opinion number 1.694.862/2016.

### Participants

A total of 73 elderly people of both genders (34 women and 39 men), who have been using Third-Age Academies (TAAs) in the municipality of Maringá,



Paraná, for at least three months and twice week a week, were selected intentionally and by convenience to participate in this study. This research excluded the following groups: elderly people using walking accessories (walking stick, walker, among others) and wheelchair users; elderly people with visual, auditory and cognitive dysfunctions that are disabling the performance of tests for and questionnaires; and individuals who did not adequately answer the questionnaires.

### Instruments

In order to characterize the elderly individuals, sociodemographic а questionnaire was used, with questions related to age, gender, race, education, smoking, retirement, self-perception of health, occupational status, minimum wage income, marital status, number of medicines used, presence of diseases, history of falls in the last six months, time of practice in TAAs and weekly frequency.

In order to assess the physical activity level, the International Physical Activity Questionnaire (IPAQ) was used, short version, with questions related to light, moderate and vigorous physical activities, classifying as sedentary, irregularly active, active and very active, according to the days of the week and the total time spent per day<sup>10</sup>.

The Who Quality of Life Bref (WHOQOL-Bref) is an abbreviated version of the World Health Organization's quality of life assessment questionnaire. It consists of 26 questions, two of which refer to the individual's perception of quality of life and health, and the rest are subdivided into physical, psychological, social relationships and environment domains. Each domain has a score of 4 to 20 points, where the closer to 20, the better the quality of life in the assessed domain<sup>11,12</sup>.

The Who Quality of Life Old WHOQOL-Old is an additional questionnaire, which is used together with the WHOQOL-Bref to investigate quality of life in older adults, including relevant aspects not covered by the instruments originally designed for populations of nonelderly individuals. It consists of 24 facets, assigned to six domains: sense functioning, autonomy, past, present and future activities, social participation, death and dying, and intimacy. Each item has four questions. Each facet has a score of 4 to 20 points, where the closer to 20, the better the quality of life in the assessed facet<sup>13</sup>.

Functional capacity for BADLs was assessed using the Katz Scale with questions related to bathing, clothing, personal hygiene, transference, continence and eating. The results were obtained through scoring, with six points classified as independence; five, four or three points, partial dependence; two or less points, total dependence<sup>14</sup>.

For IADLs, the Lawton Scale was used, which allows assessing activities necessary to live independently in the community, referring to phone calls, travel, purchasing, meal preparation, housework, medication and finance. The final score resulted from the sum of the scores of the 7 IADLs and ranged from 0 to 7 points, corresponding to the number of IADLs in which the elderly person is independent<sup>15</sup>.

# Procedures

Initially, authorization was requested from the person responsible for TAAs at the Department of Sports and Leisure of the municipality of Maringá-PR to carry out the research. TAAs were randomly selected in the five regions of the city (north, south, east, west, southeast one in each region), in order to characterize the sample obtained from the Maringá. citizens of The elderly individuals were approached in the TAAs themselves at different times. They were oriented as to the justifications and objectives of the work. Those who agreed to participate signed the Free and Informed Consent Form (FICF).



# Data analysis

Data analysis was performed using SPSS 22.0 software. The analysis was using a descriptive performed and inferential statistical approach. Frequency and percentage were used as descriptive measures for categorical variables. For numerical variables, data normality was initially checked using the Kolmogorov-Smirnov test. As the data did not show a normal distribution. Median (Md) and Quartiles (Q1; Q3) were used to characterize the results. In the comparison between the groups (Irregularly Active and Active/Very Active), the Mann-Whitney "U" test was used. In order to check the correlation among functional capacity, quality of life and physical activity level, Spearman correlation coefficient was used. A significance level of p < 0.05 was considered.

# Results

It was noticed a higher prevalence of male elderly individuals (53.4%), married (63.0%), aged up to 70 years (56.2%), with a monthly income of one to two minimum wages (56.2%), illiterate or with incomplete elementary education (42.5%), Caucasian (91.8%), retired (76.7%) and who no longer have paid work (68.5%).

Regarding the health profile of the elderly individual who practices exercise in TAAs, it was found that the majority of the elderly citizens have a good perception of health (72.6%), do not have a history of falls in the last six months (90.4%), do not have diseases (65.8%), but they make use of 1 to 2 types of medicines regularly (48.0%).

When analyzing the health profile of the elderly practitioners of exercise in TAAs (Table 1), it was found that most of the surveyed elderly individuals showed a very active/active level of physical activity (61.6%), time of practice of more than 5 years (41.1%) and independence in basic and instrumental activities of daily living (93.2% and 64.4%, respectively).

**Table 1.** Frequency distribution of the physical activity profile and functional capacity of elderly people using Third-Age Academies.

Tillid-Age Academics.				
VARIABLES	F	%		
Physical activity level				
Very active/active	45	61.6		
Irregularly active	28	38.4		
Time of physical activity in TAAs				
3 months to 1 year	21	28.8		
1.1 to 5 years	22	30.1		
More than 5 years	30	41.1		
BADLs				
Independence	68	93.2		
Partial Dependence	5	6.8		
ADLs				
Independence	47	64.4		
Partial/Total Dependence	26	35.6		

TAAs: Third-Age Academies; BADLs= Basic Activities of Daily Living; IADLs= Instrumental Activities of Daily Living.

When analyzing the quality of life level of the surveyed elderly individuals (Table 2), it was observed that they showed satisfactory values in all quality of

life domains (Md  $\geq$  16.0), with the exception of the Environment domain (Md = 14.0), which showed a lower result.



VARIABLES	Md (Q1; Q3)	
Quality of Life Domains (WHOQOL-Bref)		
Domain 1 – Physical	16.6 (14.6; 17.7)	
Domain 2 – Psychological	16.7 (14.7; 17.3)	
Domain 3 – Social Relationships	16.0 (14.7; 17.3)	
Domain 4 – Environment	14.0 (13.0; 16.0)	
Domain 5 – Self-assessment	16.0 (14.0; 18.0)	
Quality of Life Facets (WHOQOL-Old)		
Facet 1 – Sense Functioning	18.0 (15.5; 19.0)	
Facet 2 – Autonomy	15.0 (14.0; 16.0)	
Facet 3 – Activities	15.0 (13.0; 16.0)	
Facet 4 – Personal Participation	15.0 (14.0; 16.5)	
Facet 5 – Death and Dying	18.0 (13.5; 20.0)	
Facet 6 – Intimacy	16.0 (15.0; 18.0)	

**Table 2.** Descriptive analysis of the domains and facets of quality of life of the elderly individuals who practice physical activity in Third-Age Academies.

TAAs: Third-Age Academies

In the analysis of the quality of life facets (Table 2), the most prominent facets were Sense Functioning (Md = 18.0) and Death and Dying (Md = 18.0), followed by Intimacy (Md = 16.0), Personal Participation (Md = 15.0), Activities (Md = 15.0) and Autonomy (Md = 15.0). Table 3 shows the comparison of the domains and facets of quality of life of the surveyed elderly individuals according to the physical activity level.

<b>Table 5.</b> Comparison of the quanty of the domains and facets according to the physical activity level.
--

Very active / Active (n = 45)	Irregulary active (n = 28)	Р
Md (Q1;Q3)	Md (Q1;Q3)	
16.6 (14.3; 17.7)	16.6 (15.0; 17.1)	0.732
16.0 (14.0; 17.3)	16.7 (16.0; 17.3)	0.047 <sup>;</sup>
16.0 (14.0; 17.3)	16.0 (15.0; 16.0)	0.771
13.5 (13.0; 15.7)	14.5 (14.0; 16.4)	0.142
16.0 (14.0; 18.0)	16.0 (14.5; 18.0)	0.967
18.0 (16.0; 19.0)	17.5 (14.0; 19.0)	0.463
15.0 (13.0; 16.0)	15.0 (14.0; 16.0)	0.808
15.0 (13.0; 16.0)	15.5 (14.0; 16.0)	0.439
15.0 (14.0; 16.5)	15.4 (14.0; 16.7)	0.813
18.0 (12.5; 20.0)	18.0 (15.2; 20.0)	0.821
16.0 (14.5; 17.0)	17.5 (15.2; 20.0)	0.017*
	Very active / Active (n = 45) Md (Q1;Q3) 16.6 (14.3; 17.7) 16.0 (14.0; 17.3) 13.5 (13.0; 15.7) 16.0 (14.0; 18.0) 18.0 (16.0; 19.0) 15.0 (13.0; 16.0) 15.0 (13.0; 16.0) 15.0 (14.0; 16.5) 18.0 (12.5; 20.0) 16.0 (14.5; 17.0)	Very active / Active (n = 45)Irregulary active (n = 28) Md (Q1;Q3) $Md (Q1;Q3)$ $Md (Q1;Q3)$ $16.6 (14.3; 17.7)$ $16.6 (15.0; 17.1)$ $16.0 (14.0; 17.3)$ $16.0 (14.0; 17.3)$ $16.7 (16.0; 17.3)$ $16.0 (15.0; 16.0)$ $13.5 (13.0; 15.7)$ $14.5 (14.0; 16.4)$ $16.0 (14.0; 18.0)$ $18.0 (16.0; 19.0)$ $17.5 (14.0; 19.0)$ $15.0 (13.0; 16.0)$ $15.0 (13.0; 16.0)$ $15.5 (14.0; 16.0)$ $15.0 (14.0; 16.5)$ $15.0 (14.0; 16.5)$ $15.4 (14.0; 16.7)$ $18.0 (15.2; 20.0)$ $16.0 (14.5; 17.0)$ $17.5 (15.2; 20.0)$

\* Significant difference: p < 0.05 - Mann-Whitney "U" test.

It was found (Table 3) a significant difference only in the Psychological domain (p = 0.047) and in the Intimacy facet (p = 0.017), highlighting that irregularly active elderly people perceive better quality of life in relation to psychological aspects (Md = 16, 7) and intimacy (Md = 17.5) to the detriment of very active/active elderly people. There was no significant difference (p > 0.05) in any of the assessed variables, indicating that the physical activity level is not an intervening factor in functional capacity. Table 4 shows the correlation between the quality of life and the functional capacity of the surveyed elderly individuals.





Received: 18/11/2021 | Accepted: 03/02/2022

VARIABLES	BADLs	IADLs
Quality of Life Domains (WHOQOL-Bref)		
Domain 1 – Physical	0.32*	0.45*
Domain 2 – Psychological	0.35*	0.52*
Domain 3 – Social Relationships	0.23	0.34*
Domain 4 – Environment	0.16	0.23
Domain 5 – Self-assessment	0.25	0.35*
Quality of Life Facets (WHOQOL-Old)		
Facet 1 – Sense Functioning	0.34*	0.20
Facet 2 – Autonomy	0.25	0.33*
Facet 3 – Activities	0.21	0.29
Facet 4 – Personal Participation	0.35*	0.46*
Facet 5 – Death and Dying	0.09	0.46*
Facet 6 – Intimacy	0.21	0.33

**Table 4.** Correlation between the quality of life and the functional capacity of the elderly people using Third-Age Academies.

\* Significant correlation (p < 0.05) – Spearman correlation.

BADLs: Basic Activities of Daily Living; IADLs: Instrumental Academies of Daily Living.

It was noted (Table 4) a positive and significant correlation (p < 0.05) of BADLs with the Physical (r = 0.32) and Psychological (r = 0.35) domains and the Sense Functioning (r = 0.34) and Personal Participation (0.35) facets, indicating a weak relationship between the increase in functional capacity and the increase in the perception of quality of life. IADLs showed a significant correlation in the Physical (r = 0.45), Psychological (r =0.52), Social Relationships (r = 0.34) and Self-Assessment (r = 0.49) domains and in the Autonomy (r = 0.33), Personal Participation (r = 0.46) and Death and Dying (r = 0.46) facets, showing a weak to moderate relationship between the increase in functional capacity and the increase in the perception of quality of life in these domains and facets shown.

#### Discussion

The main results of this research indicate that the irregularly active elderly people perceive a better quality of life in relation to psychological aspects and intimacy to the detriment of the very active/active elderly people, as well as a weak to moderate relationship between the increase in functional capacity and the increase in the perception of quality of life in some domains and facets.

The fact that irregularly active elderly people perceive better quality of life in the psychological domain and in the intimacy facet than the more active ones can be explained by the fact that quality of life is part of a multidimensional approach that considers physical, mental and social symptoms, as well as limitations caused by diseases<sup>16</sup>, not just physical activity levels. Aging can be influenced by several factors in combination, which include biological aging, the occurrence of diseases and certain lifestyle patterns<sup>17</sup>.

The psychological domain of quality of life, assessed by the WHOQOL-Bref, includes questions related to positive and negative feelings; thinking, learning, memory and concentration, self-esteem; body image and appearance; and beliefs<sup>11,12</sup>. spirituality/religion/personal which are not necessarily positively impacted only by the physical activity level. The same applies for the intimacy facet of the WHOQOL-Old, which



includes questions regarding the ability to have personal and intimate relationships<sup>13</sup>.

Certainly, the practice of physical activity can play a fundamental role in healthy aging and, consequently, in promoting a good quality of life, but it is not the determining factor<sup>18</sup>. There is still a need for studies on the benefits of physical activity for the quality of life domains in the elderly population.

It is worth remembering that the results seem to be dependent on the instruments used to measure physical activity and quality of life. The use of questionnaires offers low cost and ease of application; however, the information reported by individuals has limited accuracy, since it tends to overestimate physical activity participation and perceived quality of life.

A systematic review<sup>16</sup> provided evidence of a causal relationship between physical activity and some quality of life domains in the elderly population. Notwithstanding, it cannot support that there is a causal relationship for all quality of life domains, because most of the studies that showed significant associations used cross-sectional designs, making any inference about causality impossible.

It was found a weak to moderate relationship between increased functional capacity and increased perceived quality of life in some domains and facets. This weak relationship can probably be explained by the small sample size and the nonprobabilistic subject selection process. Nevertheless, aging is a continuous process characterized by physiological changes that generally lead to a progressive loss of functional capacities and, as a result, loss of the ability to perform daily activities independently and safely. These changes caused by aging warn of serious life changes, such as functional deterioration from chronic diseases and disabilities for

older people, affecting their daily performance and work activities and making them more vulnerable to health problems, with the consequent negative impact on their overall quality of life<sup>19</sup>.

In turn, quality of life is related to health and centered on the ability to live healthy and overcome morbid conditions, and depends on the personal satisfaction of each one<sup>20</sup>, and not just the functional capacity.

Despite the contributions of the results of the current study, some limitations should be pointed out. Firstly, the type of intentional and convenience sample selection. Although this type of selection can create a bias for the research results, there was no other way because there are no records of users of TAAs in the city of Maringá. Nonetheless, in order to cover the entire territory of the city, one TAA was randomly selected from each region of the city.

In light of the foregoing, future research should address the quality of life of elderly people who practice physical activity in different environments where there is professional supervision and prescription of a specific exercise program for this population, since TAAs are gyms with poor professional supervision. In addition, research involving physically active elderly people who do not perform any physical activity is suggested.

# Conclusion

It is concluded that there is a relationship between the increase in functional capacity and the increase in the perception of quality of life in physically active elderly individuals. As practical implications, there is a need to maintain the functional capacity of the elderly population, regardless of age, with a view to maintaining and improving their quality of life.

### References

1. Oliveira DV, Franco MF, Antunes MD. A prática de atividade física como fator de promoção da saúde de idosos. Rev Interdis Promoção Saúde. 2019; 2(1): 70-7.



- 2. Nascimento CMC, Ayan C, Cancela JM, Pereira JR, Andrade LP, Garuffi M, Gobbi S, et al. Exercícios físicos generalizados, capacidade funcional e sintomas depressivos em idosos brasileiros. Rev Bras Cineantropom Desempenho Hum. 2013; 15(4), 486-97.
- 3. Nunes NM, Hauser E, Griebler EM, Martins VF, Possamai VD, Gonçalves AK. Avaliação do medo de cair e equilíbrio de idosos ativos e não ativos: um estudo comparativo. R Bras Ci Mov. 2016; 24(2):173-81.
- 4. Oliveira DV, Peres PM, Antunes MD, Franco MF, Nascimento Júnior JRA. Fatores associados a prática de atividade física em idosos usuários de academia da terceira idade de Maringá-PR. Saúde. 2017; 43(2):1-11.
- 5. Del Luca GF, Silva MC, Hallal PC. Disability relating to basic and instrumental activities of daily living among elderly subjects. Rev Saúde Pública. 2009; 43(5): 796-805.
- 6. Oliveira AS, Rossi EC. Envelhecimento populacional, segmento mais idoso e as atividades básicas da vida diária como indicador de velhice autônoma e ativa. Geosul. 2019; 34(73): 358-77.
- 7. Dawalibi NW, Goulart RMM, Prearo LC. Fatores relacionados à qualidade de vida de idosos em programas para a terceira idade. Ciência Saúde Colet. 2014; 19: 3505-12.
- 8. Dagios P, Vasconcellos C, Evangelista DHR. Avaliação da qualidade de vida: comparação entre idosos não institucionalizados participantes de um centro de convivência e idosos institucionalizados em JI-Paraná/RO. Estud Interdiscipl Envelhec. 2015; 20(2): 469-84.
- 9. Leme DEC, Thomaz RP, Borim FSA, Brenelli SL, Oliveira DV, Fattori A. Estudo do impacto da fragilidade, multimorbidade e incapacidade funcional na sobrevida de idosos ambulatoriais. Ciênc Saúde Colet. 2019;24(1): 137-46.
- 10. Mazo GZ, Benedetti TRB. Adaptação do questionário internacional de atividade física para idosos. Rev Bras Cineantropom Desempenho. 2010; 12(6):480-4.
- 11. Fleck M, Xavier SL, Chachamovich E, Vieira G, Santos L, Pinzon V. Aplicação da versão em português do instrumento abreviado de avaliação da qualidade de vida" WHOQOL-bref". Revista de saúde pública. 2000; 34(2): 178-83.
- 12. Pedroso B, Pilatti LA, Gutierrez GL, Picinin CT. Cálculo dos escores e estatística descritiva do WHOQOL-bref através do Microsoft Excel. Revi Bras Qualidade Vida. 2010; 2(1): 31-6.
- 13. Fleck M, Chachamovich E, Trentini CM. Projeto WHOQOL-OLD: método e resultados de grupos focais no Brasil. Rev Saúde Pública. 2003; 37: 793-9.
- Lino VTS, Pereira SEM, Camacho LAB, Ribeiro Filho ST, Buksman S. Adaptação transcultural da Escala de Independência em Atividades da Vida Diária (Escala de Katz). Cad Saúde Pública. 2008;24(1): 103-12.
- 15. Santos RL, Virtuoso Júnior JS. Confiabilidade da versão brasileira da escala de atividades instrumentais da vida diária. Rev Bras Promoção Saúde. 2008;21(4): 290-6.
- 16. Vagetti GC, Barbosa Filho VC, Moreira NB, Oliveira V, Mazzardo O, Campos W. Rev Bras Psiquiatr. 2014;36(1):76-88.
- 17. Organização Mundial da Saúde (OMS). Recomendações globais sobre atividade física para a saúde [Internet]. 2010.
- 18. Oliveira LSSCB, Souza EC, Rodrigues RAS, Fett CA, Piva AB. The effects of physical activity on anxiety, depression, and quality of life in elderly people living in the Community. Trends Psychiatry Psychother. 2019;41(1):36-42.
- 19. Silva GC, Cavalcante Neto JL. Quality of life and functional capability of elderly Brazilian women. Word. 2019;62:97-106.
- 20. Minayo MCS, Zulmira MAH, Buss PM. Qualidade de vida e saúde: Um debate necessárioario. Ciên Saúde Col.2000;5(1):7-18.

#### How to cite this article:

Oliveira DV, Peres PM, Moreira CR, Pereira DA, Silva NA, Emanuel Silva SE. Quality of life and functional capacity of physically active elderly people: possible relationships. Rev. Aten. Saúde. 2022; 20(71): 12-19.

