Chapter 166

Quality of life of elderly physically ativivos DTHE city of Goiânia Goiás

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ABSTRACT
Introduction: Quality of life (Qol) can be defined as the perception of well-being resulting from a set of individual and socio-environmental parameters. QoL can be divided into three fundamental aspects: subjectivity, multidimensionality and presence of positive and negative dimensions. According *to WHOQOL GROUP*, Qol relates the individual's perception of his life in the context of the culture and values in which he lives in relation to his/her goals, expectations and concerns. Physical, psychological, social, spiritual life, level of independence are factors that can influence QoL. Active aging has become increasingly common, experts from all areas of health recommend physical exercise as prevention and control of physiological deficits because of aging. Objective: To analyze the quality of life of elderly practitioners of physical exercise in the city of Goiânia-GO. Methodology: Cross-sectional study carried out in different academies in the city of Goiânia-Go. Eighty-seven elderly practitioners and non-practitioners of physical exercise were evaluated using the Qol questionnaire - WHOQOL - OLD). The data were analyzed using the Student's t-test for comparisons of means between two groups. The significance adopted was 5%. Results: In the domain, sensory ability and past activity present and future there were significant differences between the groups practicing and non-practicing exercise, *being* p=0.00 and p=0.05, respectively. Variable aas, social participation and death and dying were not found significant differences between the groups (p>0.05). Conclusion: Elderly practitioners of physical exercises have a higher quality of life when compared to non-practicing elderly. The domains, sensory ability and past activity present and future were the factors that demonstrated the importance of exercise practice.

Keywords: Elderly, quality of life, physical exercise, aging.

1 INTRODUCTION

Quality of life is divided into three fundamental aspects, subjectivity, multidimensionality and presence of positive and negative dimensions. The developments of these three aspects led to the definition of Quality of Life (QOL). According to WHOQOL *GROUP* (1994) Qol is related to the individual's perception of his life in the context of culture and values, in which he lives in relation to his/her goals, expectations, standards and concerns.

Characteristics such as physical, psychological, social and spiritual life and level of independence are factors that can directly influence QoL, which can be defined as the perception of well-being resulting from a set of individual and socio-environmental parameters or not, which characterize the conditions in which the human being lives (Pereira et al. 2006; NAHAS, 2017).

According to the World Health Organization (WHO) in 2050 Brazil will have more than 2 billion elderly individuals. Who determines that the elderly are those who are 60 years or older, in developing countries and 65 years or older in developed countries. However, it is important to recognize that

chronological age is not an accurate marker for changes due to aging (FECHINE and TROMPIERI, 2012). Considerable differences related to health status, independence functionality are found among people who are of the same age (MORAES and LANNA, 2014).

The practice of physical exercise for the elderly population has been recommended by the different health agencies because several beneficial ones have already been evidenced, such as improvement in the control of diabetes and hypertension, improvement in functional capacity, increased bone mass, muscle strength, flexibility, motor coordination, improvement of aerobic capacity and cognitive system (FARIAS, 2007; ACSM 2009). According to the literature, loss of lean and bone mass is considered one of the main factors of frailty in the elderly, considering that it causes loss of functional independence (SANTOS 2012, ROUBENOFF, 1997),

In this regard, the practice of physical exercise can contribute to the functionality of the elderly (MCPHEE et al. 2016; Silva et al. 2020). Performing common day-to-day tasks, such as going up and down stairs, lowering, getting up, carrying shopping bags, requires the use of a set of physical capabilities that are being altered due to aging. But with a healthy lifestyle, with the practice of physical exercise can delay the changes resulting from aging (ACSM 2009; Silva et al. 2020).

Although health agencies such as *the American College Of Sports Medicine and the American Heart Association* suggest the practice of physical exercises to acquire a healthy aging, most individuals do not practice physical exercises such as prevention and treatments (CIOLAC and GUIMARÃES, 2004; NELSON et al, 2007). Among all the permissible reasons, the lack of information is still one of the main factors for elderly people not to exercise (DERGANCE et al. 2003, NAHAS, 2017).

Aware of the importance of physical exercise practice in the aged population, the present study aims to compare the quality of life of elderly individuals who live in the city of Goiânia-GO. The hypothesis of the study is that elderly practitioners of physical exercises have a better quality of life when compared to elderly non-practitioners of physical exercise.

2 METHODOLOGY

Study design

The present study is characterized by a descriptive cross-sectional design (HOCHMAN et al. 2005)

Data collection site

The present study was carried out in four weight training academies and non-exercise volunteers were found in a community center all located in the city of Goiânia-GO.

Subject

Eighty-seven elderly of both sexes, practitioners and non-practitioners of physical exercises, were part of this study. The volunteers were divided into two groups. Group 1 (n=43): Elderly practitioners of

physical exercise. Group 2 (n=44): Elderly non-practitioners of physical exercise. The inclusion criteria for sample selection were:1) Age ≥ 60 years of age; 2) self-declared practitioners of physical exercises to at least one year of uninterrupted training; 3) To be a resident of the city of Goiânia - Go. Those who presented: 1) any type of ligament injury diagnosed that could hinder the execution of the tests were excluded; 2) Any disease or mental or cognitive impairment diagnosed that influenced the tests; All volunteers were invited to sign the Free and Informed Consent Form. Sample calculation a priori was not performed, and the sample size was defined by convenience. The characterization of the volunteers of the research separated by group is found in Table 1.

Instrument for research and data collection

Data collection was performed as follows. At first, a search was made through the internet and calls in order to verify the academies that had a significant number of elderly enrolled. In the second moment, the cover letter was presented to the technical responsible and/or owner of the academy in order to request the participation of its students in the research. In the third moment, contact was made with the elderly, the Informed Consent Form (TCLE) was presented, and the inclusion and exclusion criteria were applied. After passing the criteria, the questionnaire (Quality of Life in the Elderly - (WHOQOL - OLD 2004) was applied. For the elderly who did not practice physical exercise, they were found in community space.

Statistical analysis

The data were analyzed using *the Student's t-test* for comparisons of means between two groups (practitioners and non-practitioners of physical exercise). The significance level used was 5%. The data were analyzed in the Statistical *Package for the Social Science* (SPSS) 22. In addition, Quality of Life was analyzed as follows: need to improve (when it is 1 to 2.9); regular (3 to 3.9); (4 to 4.9) and very good (CHAMOVICH E t al. 2003).

3 FINDINGS

The results related to the characteristics of the volunteers separated by groups are presented in Table 1.

Table 1: Characteristics of participants (N=87) separated by groups. Values displayed in average (standard deviation).

Groups	Age (years)	Height (m)	M. Body (Kg)	BMI (kg/m^2)
EF practitioners	72,4 (6,55)	1,65 (1,2)	73,90 (3,30)	26,08 (1,19)
Non-practicing EF	71,25 (3,72)	1,69 (2,1)	77,40 (4,10)	27,00 (2,29)

EF: physical exercise; BMI: body mass index; M. body: body mass

The results referring to the questionnaire Quality of Life in the Elderly - WHOQOL - OLD was presented separated by the domains: sensory ability and past activity present and future, social participation and death and dying.

In the domains Sensory Ability and Present and Future Past Activity, there were significant differences between the groups that practice and *non-exercise, being* p=0.00 *and* p=0.05, respectively. In the domains Social Participation and Death and dying, no significant difference was found between the groups (p>0.05) (table 2).

Table 2: Table on quality of life separated by domain.

Quality of Life Separated by Domain and Groups					
	H.S.	**A.P.P.F**	**P.S.**	**M.M.**	**INTIMACY**
Practitioners	4,0 (0,66)* good	3,7 (0,54)* regular	3,8 (5,6) regular	3,6 (0,62) regular	3,9 (0,51) regular
Non-practitioners	3,4 (0,55) regular	3,5 (0,46) regular	3,7 (0,53) regular	3,5 (0,48) regular	3,9 (0,60) regular

H.S: Sensory ability; A.P.P.F: Past present and future activity; P.S: Social Participation; M.M: Death and dying; *Significance level of p<0.05.

The Qol of for the practitioners of physical exercises in the domain of Sensory Ability was considered with good (4). However, in the domains, Present and Future Past Activity, Social Participation and Death and Dying, a regular quality of life (3 to 3.9) (table 2) was demonstrated according to Chamovich et al. 2003 and Power et al. 2005.

In the non-exercise group all domains: Sensory Ability, Present and Future Past Activity, Social Participation, Death and Dying were considered regular (3 to 3.9) (table 2) (Fleck; Chamovich and Trentini et al. 2003).

4 DISCUSSION

The aim of this study was to analyze the quality of life of elderly practitioners of physical exercise in the city of Goiânia-GO. The results partially confirmed the hypothesis of the study, considering that individuals practicing physical exercises obtained significant results in the variables related to quality of life: sensory ability domain and past activity, present and future when comparing with individuals who did not practice physical exercise. However, there were no significant differences in the variables social participation, death and dying and intimacy.

In the present study, there were differences in the variables of quality of life, sensory abilities and social participation when comparing elderly practitioners of physical exercises with elderly non-exercisers. According to who (2015) active aging is the process of optimizing health, participation and safety opportunities, with the aim of improving quality of life as people age.

According to Nahas (2017) the sensory ability can be improved with physical exercise, since exercise can delay the loss in muscle mass and general levels of strength and endurance, allowing to perform daily activities more efficiently and lower risk of injury. With regard to social participation, corroborating

the results of the present study, Nahas (2017) states that active elderly feel more secure of themselves, and improvesocial integration, and has social functions preserved and possibly expanded.

Interestingly, the variables social participation, death and dying and intimacy showed no difference between the groups. Apparently, this difference between groups occurs for religious reasons, since the elderly non-practitioners of exercises are from religious community centers, where they develop activities related to crafts, crochet, embroidery, board games and religious cults, which can directly imply the result of the research. Fleck, Borges, Bolognesi and Rocha (2003) say that religiosity and spirituality appear as important allies for people who are sick. Therefore, the faith factor can influence both positively and negatively the life of any individual.

Regarding the variable social participation, the results did not show significant difference, even if individuals do not practice physical exercise, they are included in a cycle of coexistence in religious centers and dedicate themselves to group activities. In line with Pena and Santo (2006), we consider that leisure activities and group living contribute both to maintaining the biopsychosocial balance of the elderly, as well as to alleviate possible environmental and personal conflicts. The well-being provided by the participation of the elderly in group activities contributes to him/her experiencing exchanges and provides awareness of the importance of self-care. Another effect of social support would be its contribution to create a sense of coherence and control of life, which would benefit people's health status. In this sense, social support could be an element to *favor empowerment*, a process in which individuals, social groups and organizations gain more control over their own destinies (VALLA, 1999).

With regard to sensory skills, the results significantly confirm that physical exercise is beneficial to quality of life in the elderly, regular physical activity is equally important for the increase or preservation of muscle strength and power, maintenance of mobility and dependent life, and prevention and reduction of falls and fractures (OLIVEIRA, 2010).

With regard to death and dying religiosity may also be influenced by the final results of the research. Elderly with active and committed life remained open to the possibilities of life, and death was not the object of concern (BOEMER, ZANETTI And VALLE, 1991). Spirituality and involvement in organized religions can increase the sense of purpose and meaning of life, which are associated with the greater capacity of the human being to respond positively to the demands of daily life (GUTZ, 2013).

Regarding intimacy, the result is due to reasons of experience acquired throughout life, both in the group of practitioners and in the group of non-practitioners, the intimate relationships acquired throughout life are of total importance to the human being. Emotions are essentially impulses to act and deal with life situations and are influenced by the experiences and culture (GOLEMAN, 2001). The emotions we feel the moment we meet by living and rational beings directly imply the decisions we make, the ability to love and be loved. The moment of emotion is the moment when we touch our life force, we refind our origin, the ancestors, our collective and personal history (GAUTHIER, 2001).

5 CONCLUSION

Elderly practitioners of physical exercise have a better quality of life when compared to elderly non-practitioners. In the questionnaire quality of life for the elderly (WHOQOL - OLD) the domains sensory ability and past activity present and future were the factors that demonstrated the importance of exercise practice. In the domains social participation, death and death and intimacy showed no difference between the groups. The practical implication of the present study is related to the influence of physical exercise practice on the improvement of health and quality of life for the elderly population.

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