



The benefits of physical exercise for the elderly: A literature review

Os benefícios dos exercícios físicos para idosos: Uma revisão de literatura

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ABSTRACT

The life expectancy of Brazilians has been gradually increasing. The Brazilian Institute of Geography and Statistics (IBGE) demonstrated through data collection that from 1940 to 2016 it increased by 30.3 years. And that the state with the highest life expectancy in Brazil is Santa Catarina (IBGE, 2017).

Keywords: Benefits, Physical Exercise, Elderly.

RESUMO

A expectativa de vida do brasileiro vem aumentando gradativamente. O Instituto Brasileiro de Geografia e Estatística (IBGE) demonstrou por meio de levantamento de dados que de 1940 a 2016 ela aumentou 30,3 anos. E que o estado com maior expectativa de vida no Brasil é Santa Catarina (IBGE, 2017).

Palavras-chave: Benefícios, Exercícios Físicos, Idosos.

1 INTRODUCTION

The life expectancy of Brazilians has been gradually increasing. The Brazilian Institute of Geography and Statistics (IBGE) demonstrated through data collection that from 1940 to 2016 it increased by 30.3 years. And that the state with the highest life expectancy in Brazil is Santa Catarina (IBGE, 2017).



According to the World Health Organization (WHO), the increase in the elderly population occurs in large proportions across the globe and estimates show that by the year 2050, the population over 60 years of age will be approximately 22% of the total (WHO, 2015).

Active aging involves measures that seek to promote quality aging. These minimize the impacts of aging on daily life and provide a greater participation of the elderly in groups of coexistence, enabling more health and a greater awareness of their role in society (SANTOS et al., 2011).

The daily performance of exercises causes positive consequences that are evident throughout the body. In the elderly, it provides release of substances that activate body systems and promote interpersonal relationships; works the metabolic functions and vital functions of the body and, when associated with the appropriate nutritional habit, acts in a somatic way in its quality of life (ANDRÉA, 2010).

The benefits of the practice of physical activities are demonstrated in the national and international literature and are highlighted by the health guidelines, which recommend people over 60 years of age to practice, on average, 150 minutes per week of PA, of light to moderate intensity, so that muscle strengthening and reduction of the physical inactivity index occur (LIMA et al., 2015; American, 2007; American, 2009; Keevil et al., 2016).

2 GOAL

The objective of this study is to evidence the benefits of physical exercises in the elderly for health and quality of life.

3 METHODOLOGY

The literature review according to Fogliatto (2007) is a research method that brings together ideas from different bibliographic sources in order to build a new theory or a new form of presentation for a subject already previously known.

This study consists of an integrative literature review through access to scientific articles through selection performed in the databases National Library of Medicine (MEDLINE), Latin American and Caribbean Literature on Health Sciences Information (LILACS) and the Scientific Electronic Library Online (SCIELO).

The inclusion criteria were electronic scientific articles available in full, in Portuguese, English and Spanish, published from 2001 to 2021. The following descriptors were used: "elderly", "physical exercise"; "health."

The exclusion criteria were incomplete articles, articles that were not available in full and/or that were not freely available and that did not involve the theme of this research.



Therefore, 1853 studies were found in the databases, of these 956 in the MEDLINE database, 324 in LILACS and 563 in SCIELO., of these 936 were available in full, after reading the titles 235 were filtered, after reading the abstracts and texts 35 articles were selected for this research.

4 DEVELOPMENT

Aging is a natural process of the human organism, experienced by all long-lived individuals. And it is possible that structural and functional deterioration of collagen and elastin fibers, essential biostructural components of the skin, causes loss of firmness, elasticity and tension that result in hypotonia (COIMBRA; URIBE; OLIVEIRA, 2014).

Aging should not be accompanied by an inactive lifestyle, which favors a reduction in physical capacity and dependence. In a survey conducted by the Ministry of Health (MS, 2007) in Brazilian capitals, it was stated that physical inactivity occurs in a large part of the elderly population. The study presented percentages of 50.3% for women and 65.4% for men over 65 years of age who are regular practitioners of physical activities (CAVALLI *et al*, 2019).

The author Nahas (2010) stated that the low level of physical activity in people's daily lives can lead to loss of muscle strength, endurance, and functional mobility, which can be aggravated as physical inactivity increases over the years.

In a study with groups of elderly people considered as very active, maintaining few declines in muscle strength and functional mobility, since being active provides maintenance of strength and physical conditioning, motor and cognitive skills, in addition to being associated with longer life expectancy and disease prevention (ANGELO, 2016).

And when it comes to lifestyle, a healthy old age can be achieved when the individual has as a rule good habits from his first years of life, in order to obtain good long-term health, because in addition to the physiological, psychological, social, physical and financial changes inherent in the process, the main chronic-degenerative diseases are due to bad life habits, previously acquired, such as poor diet, addictions and physical inactivity (DAVIM, 2004).

The regular practice of physical exercises, added to an adequate diet, contributes significantly to the reduction of risk factors related to chronic diseases, such as cardiovascular diseases, diabetes, depression, obesity and osteoporosis (MATSUDO *et al.*, 2001).

Research has revealed that the performance of physical exercises in both childhood and adolescence was associated with a lower occurrence of dyslipidemia (65%) in physically active adults, reaching the conclusion that continuous practice throughout life was associated with a lower incidence of morbidity among adults (FERNANDES *et al.*, 2011).



The loss of muscle mass may be related to possible risks to the health of the elderly, such as decreased ambulation, glucose intolerance. Added to this, the exercises can contribute to the prevention against falls, since they strengthen the muscles, improve reflexes, motor coordination, flexibility, among other benefits (SPIRDUSO, 1995). Therefore, many studies show that in fact when practiced in a qualified and regular way, it brings numerous benefits about both the formation and maintenance of the body structure, as well as the cognitive and social aspects (DOMINGUES et al., 2004).

Dance, combined with collective physiotherapy for the elderly, can delay senility and promote Quality of Life (QoL), in addition to being a recommended activity for the elderly, in view of the maintenance of muscle strength, support, balance and maintenance or improvement of the range of motion, enabling the change in lifestyle since it enables the interaction between individuals (D'ALENCAR et al., 2008; NAHAS, 2010).

Another modality of physical exercise, bodybuilding, for example, aims and indicates to reduce the loss of muscle mass and the decrease in strength related to the process of senility, so that physical and motor disability are one of the major problems faced at this stage of life. However, it is indicated that flexibility exercises and aerobic exercises (low and moderate intensity) should be associated for concrete benefits, the latter being developed at a frequency of at least 3 times a week, and in a time greater than 30 minutes (GALVIN et al., 2014; ASSIS et al., 2016).

Maintaining healthy lifestyles is fundamental, because individuals who practice aerobic activities have higher levels of HDL and lower levels of LDL and VLDL compared to sedentary individuals (AMERICAN DIABETES ASSOCIATION et al., 2004). And the regular practice of physical activity prevents the increase in pressure associated with age, in addition to decreasing the systolic and diastolic blood pressure of both hypertensive and normotensive patients (CIOLAC; GUIMARAES, 2004).

In this sense, it is an important non-pharmacological intervention for the elderly population, reducing the amplitude of polypharmacy, the risks of drug interactions and the systemic effects of large doses of drugs. In a research conducted with a group of elderly practitioners of physical activity in the city of Sobral-CE, it was verified that "regular physical activity helped considerably in reducing the consumption of drugs intended to control blood pressure indicators and diseases arising from sedentary lifestyle" (GOMES JÚNIOR et al., 2015).

It is noteworthy that the reduction of muscle tone also represents a risk factor for the occurrence of falls. There were also relevant results regarding the presence of pain, described in a study conducted with five elderly women who practiced physical activity in the public gym of the municipality of Catingueira-PB, whose report was that "there was a decrease in muscle and bone pain, that the habit of exercising provides freedom for their routine tasks with the ability to walk alone" (LAMBOGLIA et al., 2014; CAMBOIM et al., 2017).



To prevent these unfavorable conditions exacerbated by aging, regular practice of physical activities is recommended. In fact, the practice of physical activity substantially affects the life of the elderly, because it decreases body fat, increases muscle mass and strength, increases bone mineral density, improves flexibility, etc. (FERREIRA, 2003).

Self-esteem may decrease with age, while symptoms of depression may increase. Thus, with the increase in the frequency and constancy of the practice of physical activity, there is an improvement in the self-esteem of the elderly, and a reduction in the levels of depression (TEIXEIRA, 2016).

The favorable effects of the practice of physical exercises are multiple, and results can be achieved in various areas, such as body composition, neuromotor variables, increased muscle strength, a gain in flexibility, increase in anaerobic power, as well as benefits in mental health, such as combating depression, improved sleep quality, decreased threat of dementia or Alzheimer's (SILVEIRA et al., 2012).

The reduction in muscle mass and the decrease in strength, called sarcopenia, affect the activities of daily living of the elderly, such as household chores, or simply getting up from a chair (HUNTER; MCCARTHY; BAMMAN, 2004).

Aging, added to the lack of physical exercises, accentuates the physiological declines in the individual and decreases muscle strength and it is noticeable the importance of applying a strength program for the conservation of the functional capacities of the elderly. The peak of human physical strength occurs between the ages of 20 and 30, declines slightly until age 50, and rapidly decreases after age 65. Thus, strength training is indispensable for the elderly, being an effective means to maintain the mass rate at levels sufficient to avoid loss of functionality (NIEMAN, 1999; HUNTER; MCCARTHY; BAMMAN, 2004),).

The American Heart Association recommends that aerobic physical exercises be performed on most days of the week, if possible daily, with intensity ranging from moderate to vigorous, according to individual physical fitness, for a period equal to or greater than 30 minutes (ERMIDA, 2000).

Health professionals are very important in advising on this and other activities capable of providing the elderly with more effective use of the upper and lower limbs, as well as to identify health problems that justify the practice of different exercises, such as walking or running (DERESZ et al., 2007).

It would be of great value if public policies gave priority to collective well-being and quality life. Thus, it is necessary that physical activities for the elderly gain priority aspects since they bring great benefit. If there is no government participation, it is almost impossible to mobilize and reach the elderly to enter Physical Education. It is known of the great economic difference between the existing social classes in Brazil. Many seniors can't afford a gym. It is necessary policies that unite physical activities with health (RODRIGUES, 2020).

The habit of practicing physical exercises provides the elderly to be more active, improves health, motivates for autonomy and to value their abilities more, allows the elderly to feel more willing and



consequently accentuates the desire to perform activities of daily living and presents more will to live (AZEVEDO FILHO, 2018; FLORES et al., 2018).

The list of benefits demonstrated by physical activity in the elderly is wide, and these are found in the physical, mental, and social fields. Thus, the search for healthy practices is directly linked to the good quality of life presented by these individuals. And it is noteworthy that practicing physical exercises provides an autonomy to the practitioner reducing their fragility, an important factor since the elderly tend to create a dependency due to their vulnerability (BALBÉ, 2016).

Therefore, the practice of physical exercises contributes positively to the quality of life of the elderly about functional capacity, elimination of pain and health status. Thus, preventing the appearance of diseases related to poor mobility and sedentary lifestyle. It is noticeable the importance of the practice of physical exercise and the factors inserted in it and its contribution to the muscular strengthening of the elderly and preserving their autonomy (FERREIR; DIETTRIC; PEDRO, 2015; JUNIOR et al., 2015).

5 FINAL CONSIDERATIONS

The practice of routine physical exercises and added to this adopt healthy habits is something of great value for health. But it takes willingness and persistence, especially today, in the face of the accelerated rhythms of life that people have.

For the practice of physical exercises there are places that have activities offered in private organizations and public spaces arranged in squares and other open places of free access to the population.

Therefore, the information obtained in this study is important to expand knowledge about the importance of physical exercises for the elderly to promote health and foster desire to other elderly to start practicing physical exercises and have a better quality of life.

Emphasizing that health professionals are essential to inform this population about the diseases that can be caused by sedentary lifestyle in the elderly population and that having a routine of physical exercises practiced daily is fundamental to preserve health.



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