IMPACTS OF PHYSICAL ACTIVITY ON THE QUALITY OF LIFE OF LONGER LIVES

IMPACTOS DA ATIVIDADE FÍSICA NA QUALIDADE DE VIDA DE PESSOAS LONGEVAS

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Abstract
Longevity is a multifactorial phenomenon involving physical, cognitive, and social aspects, directly influenced by the quality of life and autonomy of older adults. Among the factors that contribute to this process, the regular practice of physical activity stands out as an essential strategy for promoting health and preventing the deleterious effects of aging. This study aimed to investigate the relationship between regular physical activity and healthy longevity in the elderly. A narrative literature review was conducted between March and April 2025, including articles published from 2015 to 2025, sourced from Google Scholar, Capes Journals, Scielo, and PubMed, applying inclusion and exclusion criteria related to the publication period and type of publication. The analysis revealed that physical activity provides functional, cognitive, and emotional benefits, supporting autonomy, preventing chronic diseases, and reducing the risk of falls. Positive influences on mental health, social well-being, and biological aging processes, such as DNA methylation, were also observed. Neuroprotective effects, particularly on memory and executive functions, as well as the prevention of depressive symptoms, were highlighted. However, physical limitations, insecurity, economic factors, and lack of infrastructure still hinder elderly adherence to exercise programs. The review demonstrated that physical exercise improves functional capacity, reduces chronic diseases, falls, and frailty, and promotes better quality of life. Individualized practices and specific public policies are essential for active aging.
Keywords: Older adults; Longevity; Aging; Physical Activity.

Resumo
A longevidade é um fenômeno multifatorial que envolve aspectos físicos, cognitivos e sociais, diretamente influenciado pela qualidade de vida e autonomia do idoso. Entre os fatores que contribuem para esse processo, a prática regular de atividade física destaca-se como uma estratégia essencial na promoção da saúde e na prevenção

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dos efeitos deletérios do envelhecimento. Investigar a relação entre a prática regular de atividade física e a longevidade saudável em idosos. Foi realizada uma revisão narrativa da literatura entre março e abril de 2025, com artigos publicados de 2015 a 2025, nas bases Google Acadêmico, Periódicos Capes, Scielo e Pubmed, aplicando critérios de inclusão e exclusão que se relacionam ao período de publicação e ao tipo de publicação. A análise revelou que a atividade física proporciona benefícios funcionais, cognitivos e emocionais, favorecendo a autonomia, prevenindo doenças crônicas e reduzindo o risco de quedas. Também foi observada influência positiva na saúde mental, no bem-estar social e em processos biológicos relacionados ao envelhecimento celular, como a metilação do DNA. Destacaram-se ainda os efeitos neuroprotetores, especialmente sobre memória e funções executivas, além da prevenção de sintomas depressivos. No entanto, limitações físicas, insegurança, fatores econômicos e falta de infraestrutura ainda dificultam a adesão dos idosos aos programas de exercícios. A revisão evidenciou que o exercício físico melhora a capacidade funcional, reduz doenças crônicas, quedas e fragilidade, além de promover melhor qualidade de vida. A individualização das práticas e políticas públicas específicas são essenciais para um envelhecimento ativo.
Palavras-chave: Idosos; Longevidade; Envelhecimento; Atividade Física.

1 INTRODUCTION

Human longevity is currently understood as a multifactorial phenomenon, influenced by social, biological, and behavioral factors, and directly related to quality of life. This concept transcends simply increasing life expectancy, also encompassing the ability to live independently, healthily, and with well-being (Rodrigues; Dala-Paula, 2023).

In Brazil, the Elderly Persons Statute defines elderly as anyone aged 60 or older (BRASIL, 2022), a rapidly growing population group that demands greater attention in the field of health and well-being. Terms such as "third age," "aging," and "elderly" are commonly used to describe this segment, each emphasizing different social and biological aspects of the aging process.

As we age, changes occur in cognitive, motor, and socio-affective dimensions. Aging is associated with morphological and functional changes that compromise an individual's ability to respond adequately to the demands of daily life, resulting in physical limitations such as progressive loss of muscle strength, flexibility, balance, mobility, and the presence of diseases such as osteoporosis (Perracini; Fló, 2019). These transformations directly impact the autonomy and quality of life of older adults, making it essential to adopt strategies that promote the maintenance of functionality.

Among these strategies, regular physical activity (PA) stands out as one of the main protective factors against the harmful effects of aging. The World Health Organization (WHO) defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure, including activities performed during leisure time, work, commuting, and household chores.

Thus, for WHO, the regular practice of physical activity is associated with improved physical and functional fitness, prevention of chronic non-communicable diseases, reduced risk of falls, preservation of mental health and increased life expectancy and quality of life (Who, 2020).

Studies have demonstrated the benefits of physical activity for the elderly population. Positive results include reduced frailty, increased muscle strength, improved gait speed, and higher energy levels (Feng *et al.*, 2015). Physically active older adults also have better cardiorespiratory performance, greater vitality, and a lower risk of functional decline (Guimarães *et al.*, 2021). Furthermore, systematic physical exercise practices have significantly contributed to reducing the rate of falls and medication dependence, consolidating its position as a health promotion tool (Sherrington *et al.*, 2019).

In light of this evidence, it becomes pertinent to investigate the relationship between physical activity and quality longevity. This analysis aimed to understand the extent to which physical activity can contribute to healthy aging, promoting independence and reducing the incidence of health problems in old age. The importance of this study lies in the need to expand knowledge about effective strategies for promoting health in older adults, contributing to the planning of evidence-based public policies and professional practices.

Thus, this work started from the following guiding question: What is the relationship between the practice of physical activity and the promotion of (healthy) longevity in the elderly?

The rationale for this study lies in the growing demand for approaches that support active and healthy aging. With the growing elderly population, it is crucial to understand how physical activity can act as a protective factor against the harmful effects of aging, promoting autonomy, well-being, and quality of life. In this context, understanding the relationship between physical activity and healthy longevity is crucial for developing interventions that promote active aging, allowing older adults to live longer with health and quality of life.

The study was also justified by its academic relevance, as it seeks to deepen knowledge about the impacts of physical activity on longevity, providing important insights for health professionals, researchers, and public policymakers. Based on the evidence that regular physical activity can promote health, increase independence, and slow functional decline, it can contribute to the development of effective strategies that aim not only to increase longevity but also to ensure a healthier, better-quality life for older adults. Therefore, the objective of this study was to investigate the relationship between regular physical activity and healthy longevity in older adults.

2 PROCEDURES AND METHODS

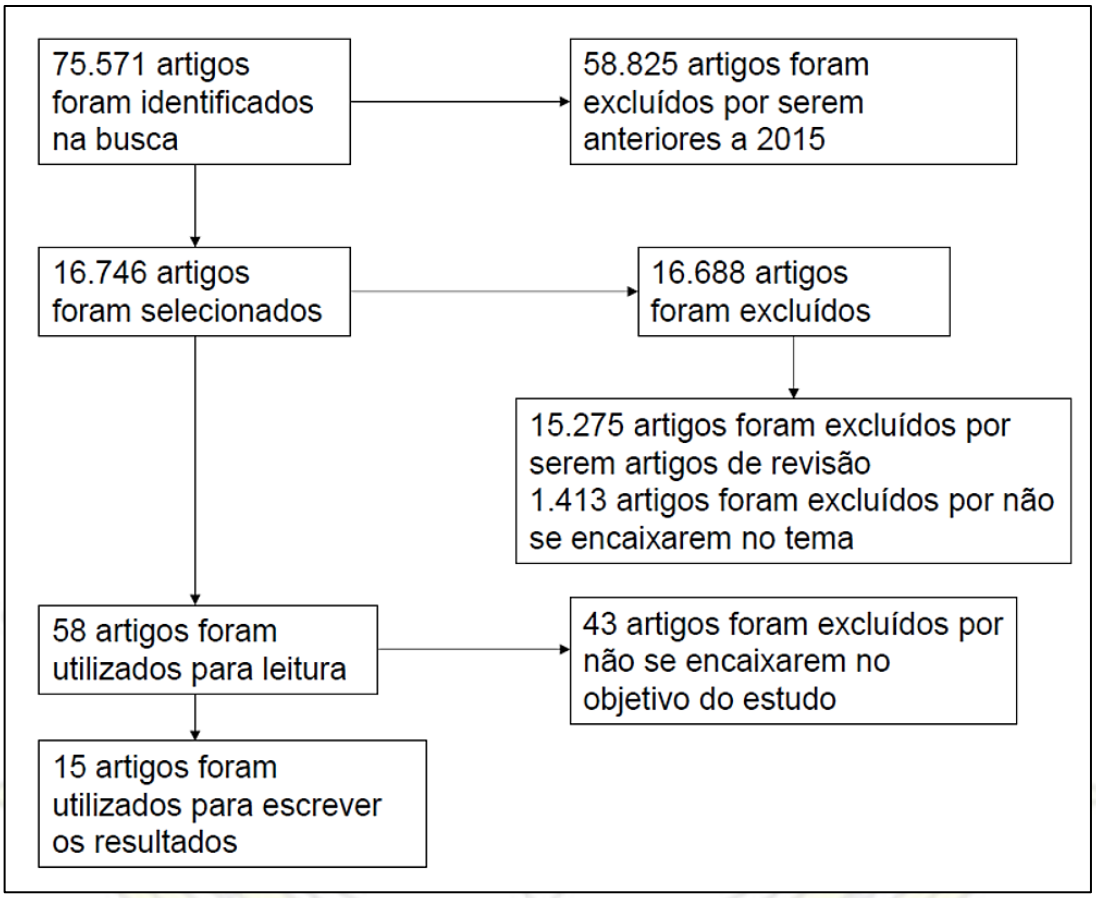
The narrative review of this study was carried out between March 2025 and April 2025. A narrative review is characterized as the type of literature review that aims to present, summarize and critically analyze the existing knowledge on a given topic, without the intention of making a statistical analysis of the studies (Rother, 2007).

The results were found in databases such as Google Scholar, Capes Journals, Scielo, and PubMed. The descriptors used were longevity, physical activity, elderly people, exercise in old age, and benefits of physical activity, both individually and in combination. The inclusion criteria were articles published between 2015 and 2025, and review articles and those lacking data on the study topic were also excluded.

Three of the sites used are national with research conducted in Portuguese (Google Scholar, Periódicos Capes and Scielo) and only one is international (Pubmed) with research carried out in English, using the descriptors in English: longevity, physical activity, fitness, exercise on a third day, benefits from physical activity, both individually and in combination. Initially, 74,000 articles were found in Google Scholar, 71 in Capes Periodicals, and 1,500 in PubMed, totaling 75,571 articles.

Of these, 58,825 were excluded for being outside the stipulated period, 15,275 for not being randomized trials, and 1,413 for not fitting the desired theme. Fifty-eight articles remained for reading and abstract analysis, and after this reading, only 15 articles were selected for relevance to the study.

Figure 1 - Flowchart of the results of the search in information sources, selection and inclusion of studies in this research



Source: Prepared by the authors, 2025

3 RESULTS AND DISCUSSION

Table 1 - Studies used to prepare the results of this article

References	Objective	Sample	Results	Conclusion
Virtuosic *et al.* (2015)	To evaluate the factors associated with the longevity of elderly individuals who practice physical exercise.	277 elderly people of both sexes, aged between 60 and 80 years or older, who practiced physical activity, participated.	Gender is a relevant factor in longevity (men live longer). Handgrip strength, the absence of heart disease, the absence of osteoporosis, and upper limb strength all positively influence the likelihood of achieving greater longevity.	The authors concluded that being male, not having heart disease, and having good flexibility increase the chance of achieving longevity, while having lower handgrip strength and low flexibility decreases the chance of reaching 80 years or older.
Feng *et al.* (2015)	To compare the effects of 6-month interventions with physical exercise, nutritional supplementation, cognitive training, and a combination of these interventions with usual care. in reducing the frailty of the elderly.	246 elderly individuals of both sexes, aged at least 65 years, participated and were divided into 5 intervention groups: nutritional supplementation (n = 49), cognitive training (n = 50), physical training (n = 48), combined treatment (n = 49) and usual care as a control (n = 50).	Reduction in frailty scores across all groups over 12 months. The most significant improvements occurred in the following physical domains: knee strength (physical, cognitive, and combined interventions), physical activity (nutritional intervention), gait speed (physical intervention), and energy levels (combined intervention).	The authors concluded that physical, nutritional, and cognitive intervention approaches were effective in reversing frailty among community-dwelling older adults.
Hoffmann *et al.* (2016)	To evaluate the effects of a moderate-to-high-intensity aerobic exercise program in patients with mild Alzheimer's disease (AD).	200 elderly individuals with mild AD participated, with an average age of 70.5 years, separated into 3 groups (control, low and high exercise).	Possible effect on cognition in older adults who adhered to the program. This may suggest that physical exercise can have an effect on cognition, as long as high frequency and intensity are maintained.	The authors concluded that there were no relevant differences between exercisers and non-exercisers in terms of memory, quality of life or daily activities, but participants who exercised showed improvements in behavioral symptoms, attention and mental speed.
Kekäläinen *et al.* (2018)	To determine the effects of a 9-month resistance training (RT) intervention on quality of life, sense of coherence, and depressive symptoms in older adults, and to compare the effects between different training frequencies.	106 elderly people, aged between 65 and 75 years, of both sexes, participated, divided into 3 groups (TR1, TR2, TR3), according to the weekly training frequency (1, 2 or 3 times per week, respectively).	After 3 months, a positive effect of the intervention on environmental quality of life was observed. Between months 3 and 9, environmental quality of life decreased in the TR1 group, while it remained stable or improved in the TR2 and TR3 groups. Over the 9 months of the study, the TR2 group demonstrated the greatest improvement in environmental quality of life compared to all other groups. Sense of coherence increased. in the TR2 group, when compared to the control group and the TR3 group.	The authors concluded that resistance training is beneficial for environmental quality of life and a sense of coherence. Training twice a week appears to be the most beneficial frequency for these aspects of psychological functioning.

Sherrington *et al.* (2019)	To evaluate the effects (benefits and harms) of exercise interventions to prevent falls in older adults.	23,407 elderly people of both sexes participated, distributed across 25 countries, with an average age of 76 years.	Physical exercise reduced the rate of falls by 23% and the number of people who suffered one or more falls by 15%.	The authors concluded that well-designed exercise programs reduce the rate of falls, the number of older adults who experience falls, and the number of fall-related fractures.
Liu-Ambrose *et al.* (2019)	To evaluate the effect of a home exercise program as a fall prevention strategy in elderly individuals referred to a fall prevention clinic after a fall.	345 elderly people with an average age of 81.6 years participated.	There was a decrease in the number of falls in the group that exercised 3 times a week and took 30-minute walks at least twice a week.	The authors concluded that a home-based strength and balance training program reduces the rate of subsequent falls in older adults compared with usual care.
Sanders *et al.* (2020)	To determine the feasibility of combined low- and high-intensity aerobic and strength training; and the dose-response effects of combined low- and high-intensity aerobic and strength exercise on physical and cognitive functions.	91 elderly people participated, with a mean age of 82.3 ± 6.96 years, of both sexes.	Improvement in gait speed for the exercise group compared to the control group after 24 weeks. There were no significant effects of exercise on other physical functions or cognitive functions.	The authors concluded that strength exercises can achieve better results than walking exercises and that the improvement in walking speed may come from improved strength.
Stensvold *et al.* (2020)	To evaluate the effect of five years of supervised physical training compared to physical activity recommendations on mortality in the elderly.	1,567 elderly people aged between 70 and 77 participated.	Comparing the control group (which followed general guidelines) with the exercise groups, there was no difference in total mortality. However, when the exercise groups were analyzed separately, the high-intensity interval training (HIIT) group showed an absolute risk reduction of 1.7 percentage points, while the moderate-intensity continuous training (MICT) group had an increase of 1.2 points. Directly comparing HIIT with MICT, HIIT reduced the risk by about 2.9 percentage points.	The authors concluded that combined MICT and HIIT had no effect on all-cause mortality compared to recommended physical activity levels. However, the authors suggest that HIIT may contribute to lower mortality compared to the control group and the MICT.
Guimarães *et al.* (2021)	To evaluate cardiorespiratory fitness and quality of life in elderly women who practice and do not practice physical activity.	Forty elderly women, aged between 60 and 80 years, participated, 20 of whom practiced physical activity and 20 of whom did not practice physical activity.	Elderly women who practiced physical activity presented better results in relation to mental health, vitality and functional capacity, as well as cardiorespiratory responses, when compared to elderly women who did not practice physical activity.	The authors concluded that physical activity can provide a better quality of life for the elderly.
Neves and Faustino (2022)	To evaluate the association between the level and recommended time of physical activity (PA) with	300 elderly people participated, 150 from each country (Brazil – mean age = 67.86 ± 5.39 years; Portugal – mean	There is a greater sedentary lifestyle among the Portuguese, in addition to an aging elderly population. In the Brazilian population, a younger age group and greater engagement in PA	The authors concluded that, in Portugal, there is a higher rate of sedentary lifestyle and that, in Brazil, there was greater engagement in the practice of PA.

	sociodemographic and health variables of elderly people in Brazil and Portugal.	age = 75.86 ± 5.55 years).	were observed. In both populations, a high number of chronic diseases was observed (over 87%). Lack of companionship, motivation, and knowledge about the benefits of PA were identified as obstacles to engaging in physical activity in both countries.	
Stathi *et al.* (2022)	To establish whether a community intervention for active aging could prevent the decline in lower limb physical function in older adults who already have an increased risk of mobility limitations.	777 elderly people aged 65 or over participated.	After the group activity sessions, the intervention group demonstrated higher performance scores than the control group at 6 and 12 months. Self-reported physical activity was significantly higher in the intervention group at 6, 12, and 24 months.	The authors concluded that exercise programs significantly increase lower limb physical functions, muscle strengthening, balance and endurance in the elderly, and may thus prevent the decline in physical function.
Tarumi *et al.* (2022)	To investigate the effects of a one-year progressive moderate-to-high-intensity aerobic exercise intervention on cognitive function, brain volume, and cortical thickness in sedentary but healthy older adults.	73 elderly people aged between 60 and 80 years, cognitively normal, sedentary, but healthy, participated in the study.	Aerobic exercise training significantly increased peak VO_2 over one year compared with stretching. However, a significant interaction was observed for hippocampal volume, with reduced atrophy in the stretching group.	The authors concluded that, in sedentary older adults, aerobic exercise for one year can increase peak VO_2, and that hippocampal volume loss can be prevented with stretching exercises. This suggests that cardiorespiratory fitness gains from physical training may have beneficial effects on neurocognitive function in older adults.
Wang *et al.* (2023)	To investigate the associations between a healthy lifestyle in old age and genetic risk with life expectancy in the elderly.	36,164 elderly people aged 65 or over participated.	Life expectancy at age 65 was highest for participants in the intermediate (2.14 years) and healthy lifestyle (4.51 years) categories. Furthermore, a shift from the unhealthy lifestyle category to the healthy lifestyle category was estimated to be associated with an additional 3.84 years of life expectancy in the low genetic risk group and 4.35 years in the high genetic risk group at age 65.	The authors concluded that adherence to a healthy lifestyle substantially reduced the risk of mortality and moderately prolonged life expectancy, especially for those with a high genetic risk of short lifespan.
Oliveira, Sousa and Alvarez (2024)	To analyze how subjective well-being, subjective health, physical activity, and the Mediterranean diet relate to biomarkers of aging and the number of prescribed medications, and how they vary across groups differentiated	290 elderly people of both sexes, aged between 61 and 98 years, participated.	Older adults who engage in moderate or intense physical activity have fewer depressive symptoms, use fewer medications, have a larger social support network, adhere better to appropriate diets, and have healthier levels of alkaline phosphatase, triglycerides, and HDL.	The authors concluded that moderate to intense physical activity is associated with well-being and physical health.

	by age, sex, and other sociodemographic variables.			
Jesus *et al.* (2025)	To investigate the self-perception of health and the frequency of gym-going among elderly people.	Twenty-five elderly women, aged between 60 and 74, who had been attending the gym for more than a year, participated.	The elderly's self-perception of health was almost unanimous, with 96% reporting that they felt positive changes with physical activity at the gym.	The authors concluded that self-assessment of health is an essential factor in understanding the physical and emotional conditions of elderly people, directly influencing their quality of life.

Source: Prepared by the authors, 2025

The objective of this study was to investigate the relationship between regular physical activity and healthy longevity in older adults. Based on the results, it can be observed that the relationship between regular physical activity and healthy longevity in older adults is complex and multifaceted, encompassing physical, functional, cognitive, emotional, and social aspects. The reviewed literature provided evidence that physical activity not only improved physical fitness but also had profound impacts on the mental health and social well-being of the older adults studied. The combination of these effects promoted more autonomous and better-quality aging, characterizing the concept of active aging.

Studies such as those by Liu-Ambrose *et al.* (2019), Sanders *et al.* (2020), and Stathi *et al*. (2022) highlighted that muscle strength is one of the main determinants of functionality and independence in older adults. Muscle strength reduces vulnerability, falls, and functional disability, factors that compromise quality of life and can lead to early institutionalization. Resistance exercise plays a crucial role in maintaining this strength, preventing the physical decline that accompanies aging. Furthermore, combining strength exercises with other types of activity, such as aerobic training, promotes a holistic approach, contributing to an improvement in the overall functional capacity of older adults (Sherrington *et al.*, 2019). As presented by Virtuso *et al.* (2015), Guimarães *et al.* (2021), the ability to maintain an active lifestyle was directly related to general health status, and the absence of comorbidities amplifies the benefits of exercise, with evidence that healthy habits combined with physical practice result in more successful aging.

Evidence that physical activity can influence biological processes underlying aging, such as modulation of DNA methylation, has brought new insights into the benefits of exercise for longevity. Fiorito *et al.* (2021) and Wang *et al.* (2023) illustrated

how the effects of exercise can go beyond improving immediate fitness, acting directly on the epigenetic mechanisms that regulate cellular aging. These results are interesting because they offer a biological explanation for the reduced risk of age-related diseases, such as cardiovascular disease, cancer, and diabetes, when older adults maintain a regular exercise routine. According to the authors, physical activity becomes a tool that modulates longevity, affecting the biology of aging at the molecular level, in addition to contributing to the maintenance of functional and psychological health.

In the same sense, Lohman *et al.* (2023) investigated the effects of a high-intensity interval training (HIIT) protocol on biological age using gene expression data in sedentary adults aged 40 to 65. The study demonstrated that, after just four weeks of training, there was a 3.59-year reduction in transcriptomic age (an mRNA-based measure) in the exercise group, while the control group showed a 3.29-year increase. Improvements were also observed in depressive symptom scores (PHQ-9), sleep quality (PSQI), body composition (fat mass, visceral fat), and body mass index (BMI).

Based on these findings, the authors suggested that even a low dose of HIIT can influence biological pathways related to aging, such as autophagy, neurotrophins, and insulin. These findings strengthen the hypothesis that physical activity, even in small amounts and intensely, can directly modulate biological age, corroborating the idea that physical exercise has not only functional but also cellular and molecular effects on the aging process. However, it is worth noting that the target audience for this study included adults and older adults, and therefore, it serves as a discussion point, but not the basis for the present study's results.

From a cognitive health perspective, the positive impact of physical activity on preserving executive functions and preventing neurodegenerative diseases such as Alzheimer's has also been observed in studies by Hoffmann *et al.* (2016), Kekäläinen *et al.* (2018), and Tarumi *et al.* (2022) indicated that exercise improved aspects such as attention, working memory, and decision-making. Although the impact on episodic memory is still debated, most evidence suggests that regular exercise can slow cognitive decline, particularly when combined with mind-stimulating psychosocial activities. Furthermore, physical activity promoted hormonal and neurochemical balance that reduced symptoms of anxiety and depression, with beneficial effects on the mental health of older adults. The combination of cognitive and emotional benefits

reinforces the importance of physical exercise as an effective intervention to improve quality of life and prevent early institutionalization.

Another relevant point was the importance of subjective health perception, which has been an important variable for adherence to exercise programs. Older adults who perceive direct benefits from physical activity, such as increased energy, improved mood, and greater autonomy, tend to maintain their practice longer. The study by Jesus *et al.* (2025) demonstrated that many older adults report a sense of physical and psychological well-being after exercise, which strengthens their commitment to regular exercise. Programs such as PEP4PA (Peer Empowerment Program for Physical Activity), investigated by Crist *et al.* (2022) exemplified how community initiatives can increase exercise adherence by fostering a supportive social environment. Interaction with others, social reinforcement, and a sense of belonging to an active community help keep older adults motivated, fostering a virtuous cycle of physical activity and continuous improvement in well-being.

Corroborating this evidence, Feng *et al.* (2015) demonstrated that different types of interventions, including physical activity, nutritional supplementation, and cognitive training, were effective in reducing frailty in older adults over 12 months. The study, which divided 246 older adults into five intervention groups, showed significant improvements in physical domains such as knee strength, gait speed, and energy levels, especially in the groups that received both physical and combined intervention.

These findings reinforce the notion that multidimensional approaches, which combine physical exercise with other health components, are particularly effective in promoting active and healthy aging. Thus, the study by Feng *et al.* (2015) complements those of other authors by showing that the integration of different strategies can amplify the positive effects of physical activity, contributing to the reversal of frailty and improving functionality among community-dwelling older adults.

However, barriers to adherence to physical activity should not be ignored. Neves and Faustino (2022) revealed that, even when older adults recognize the benefits of exercise, sociocultural and economic factors can hinder the implementation of regular practices. The lack of adequate infrastructure, such as safe spaces for physical activity and programs adapted to older adults' limitations, is a significant barrier. Furthermore, psychosocial issues, such as lack of motivation, fear of injury, and insecurity about physical capacity, can limit older adults' participation in exercise programs. These barriers highlight the need for public policies that promote equitable

access to physical activity, adapting programs to local realities and offering motivational, informational support, and social interaction to increase adherence. Implementing programs that consider the cultural, psychological, and physical specificities of each group of older adults proves beneficial to ensure that all older adults have the opportunity to benefit from the effects of physical activity.

Furthermore, exercise intensity was a relevant factor in the observed benefits, as demonstrated in Stensvold 's study *et al.* (2020) and Oliveira, Sousa, and Alvarez (2024), high-intensity interventions such as HIIT have been shown to improve metabolic and cardiovascular health, but they must be carefully adjusted to ensure participant safety. Individualizing training, taking into account the clinical conditions, prior exercise experience, and physical limitations of older adults, is essential to prevent injuries and achieve the desired effects. Adapting the intensity and type of exercise should be guided by healthcare professionals to optimize results without compromising older adults' safety.

In short, regular physical activity is one of the pillars for promoting healthy longevity in older adults, with positive effects that extend beyond the physical body to include cognition, emotions, and social relationships. Exercise programs should be designed to consider the individual conditions of older adults, promoting adherence and respecting their limitations. Creating environments and policies that encourage regular physical activity, combined with educational and motivational strategies, is crucial to improving the quality of life of older adults and, consequently, promoting healthier and more active aging.

4 FINAL CONSIDERATIONS

A review of studies on regular physical activity and healthy longevity in older adults revealed that physical exercise improved functional capacity, reduced the risk of chronic diseases, decreased falls and frailty, and promoted a better quality of life. Furthermore, it positively impacted cognitive functions, prevented depressive symptoms, and increased muscle strength, flexibility, balance, and mobility, all of which are essential for the independence of older adults. It also contributed to reducing symptoms of osteoporosis and heart disease, as well as improving mental and social well-being.

However, the review has limitations, such as its reliance on the methodologies of the studies analyzed, which may limit the generalizability of the results. The timeframe (2015-2025) may also not include all approaches or changes in recommendations regarding physical activity for older adults. Furthermore, variation in study protocols made direct comparisons difficult. Therefore, future research should focus on longitudinal studies with a greater diversity of older adults and explore the physiological and neurophysiological mechanisms of physical activity's benefits. Multidimensional studies that integrate physical exercise with nutritional, cognitive, and social interventions may offer a more comprehensive view of the longevity process. The information gathered in this study is of great importance to the professional practice of healthcare professionals, as it provides support for the development of effective interventions aimed at promoting the health and autonomy of older adults. Physical education professionals, physiotherapists, physicians, and other specialists should be prepared to customize intervention programs according to individual needs and limitations, with the goal of preserving mobility, independence, and quality of life.

Furthermore, the data presented are relevant for formulating public policies that encourage regular physical activity through the creation of accessible environments and specific programs for this population. Raising awareness of the benefits of active aging should be a priority for healthcare professionals, helping older adults live longer and with a better quality of life.

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