

The role of the physiotherapist in the prevention and functional rehabilitation of falls in the elderly.

Efficacy of physiotherapy in the treatment of chronic pain in women with fibromyalgia

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Summary

Introduction: The growing aging population accentuates the prevalence of falls in the elderly, an event with significant impacts on the functionality and quality of life of the elderly and their families, in addition to increasing expenses for public coffers. Physiotherapy emerges as a crucial intervention in this process, minimizing risks and optimizing the independence of the elderly. Objective: To consider the role of the physiotherapist in the prevention and functional rehabilitation of falls in the elderly, through the identification of the main risk factors for falls and a review of the most effective strategies applied by these professionals. Methodology: This study is a descriptive and exploratory qualitative literature review, based on publications found in the electronic databases LILACS, SCIELO, Virtual Health Library and periodicals. The research was conducted between 2021 and 2025. Results/Discussion: The elderly population will reach approximately 1.5 billion by 2050. And in Brazil, falls are the main cause of injuries and deaths in people over 60 years of age, generating severe traumas such as femur fractures. These falls are the result of intrinsic (physiological) and/or extrinsic (environmental) factors. Requiring individualized assessment with risk identification (Morse Scale), they also demand resources, strategies, and therapies, such as the application of kinesiotherapy to improve physical conditioning. Conclusion: Thus, the physiotherapist's role in the prevention and functional rehabilitation of falls in the elderly promotes the quality of life of this population, but there is a need for public policies, education of society and families about the importance of these practices aimed at reducing falls in the elderly.

Keywords: Physiotherapy. Frail Elderly. Accident Prevention.

Abstract

Introduction: The growing aging population increases the prevalence of falls among the elderly, an event with significant impacts on the functionality and quality of life of the elderly and their families, in addition to increasing public expenditures. Physical therapy emerges as a crucial intervention in this process, minimizing risks and optimizing the independence of the elderly. Objective: To consider the role of physical therapists in the prevention and functional rehabilitation of falls in the elderly, by identifying the main risk factors for falls and reviewing the most effective strategies applied by these professionals. Methodology: This study is a qualitative, descriptive, and exploratory literature review based on publications found in the electronic databases LILACS, SCIELO, the Virtual Health Library, and journals. The study was conducted between 2021 and 2025. Result/Discursion: The elderly population will reach approximately 1.5 billion by 2050. In Brazil, falls are the leading cause of injury and death in those over 60, resulting in severe trauma such as femur fractures. These falls are the result of intrinsic (physiological) and/or extrinsic (environmental) factors. Requiring individualized assessment with risk identification (Morse Scale), they also require resources, strategies, and therapies, such as kinesiotherapy to improve physical fitness. Conclusion: Thus, the role of physical therapists in the prevention and functional rehabilitation of falls in the elderly promotes their quality of life. However, there is a need for public policies and education of society and families on the importance of these practices aimed at reducing falls in the elderly.

Keywords: Physiotherapy. Frail Elderly. Accident Prevention.



1. Introduction

According to the World Health Organization (WHO), people over 60 years of age who Women living in developing countries are considered elderly, while those over 65 years when residing in developed nations. In Brazil, there are several laws/provisions that They protect the elderly, including the 1988 Federal Constitution and the National Policy for the Elderly. According to According to Law No. 8,842, of January 4, 1994, an elderly person is someone aged 60 or older. Therefore, Law No. 10,741, of October 1, 2003, also called the Statute of the Elderly, was established to to regulate the rights guaranteed to individuals aged 60 or older (WHO, 2005)

(Apud Farias et al., 2021).

The aging process is marked by physiological changes that manifest themselves in in a gradual manner, leading to a reduction in operational capacity, strength, and decreases in aspect.

Cognitive and emotional. Thus, the elderly find themselves in greater vulnerability and prone to illnesses, which can affect work performance and social functions. These

Debilitating bodily changes in the elderly can lead to balance problems and alterations in...

gait disturbances, difficulty seeing, changes in tactile sensation and proprioception that can lead to Falls and functional limitations, with potential impacts on the elderly person's health, such as fractures and skin damage. and immobility, social isolation, and hospitalizations that complicate the performance of daily living activities. daily (Rodrigues; Homem, 2022).

All elderly people have the right to health, and the World Health Organization (WHO) recognizes this. It defines it as "a state of complete physical, mental and social well-being, not merely the absence of "Illness." Where it is considered a duty for the family, society, and the government to ensure the right to projects. and healthcare assistance for prevention, promotion, protection, and recovery. Regarding the analysis of...

The Federal Constitution, in its article 196, establishes that health is an obligation of the State (Government).

Federal, State and Municipal) and a right of all (Santos; Carvalho, 2023; Brazil, 2025).

Physical geriatric rehabilitation, also known as gerontological physiotherapy,

It consists of a series of therapeutic and care actions aimed at improving or restoring the

functionality of older adults, particularly those with physical limitations or health conditions that

They compromise their independence, such as those resulting from falls. Therefore, the role of the physiotherapist is crucial.

It is crucial, assisting in the restoration or maintenance of the elderly person's independence, encouraging the

social reintegration, quality of life, and overall well-being. But it's important to emphasize that there are...

the need for improved geriatric rehabilitation practices and technological innovation in

physiotherapy, to better contribute as a support for health policies that encourage a

Greater inclusion and access for older adults to emerging technologies, as well as specialized assistance.

offered by these professionals (Breviário et al., 2025; Maia et al., 2023).



The role of the physiotherapist in the prevention and recovery from falls in the elderly: to clarify. How can physiotherapy help in these stages through its scientific and practical knowledge? promoting personal independence and quality of life for the elderly and their families, in addition to reduce costs for the government. Each short or long hospitalization caused by falls can can be avoided or minimized through physiotherapist intervention by means of programs preventive and rehabilitative exercises that are based on exercises for balance and muscle strength, positively impacting well-being, reducing the fear of future falls, and decreasing the anxiety and even the social reintegration of the elderly (Bertochi et al., 2025; Silva et al., 2023).

This work is justified by highlighting the importance of the physiotherapist in prevention. and fall rehabilitation in the elderly, a very important topic, since it is increasingly identified People are reaching old age, but with this reality also comes an increased risk. to prevent falls, which can directly impact the quality of life of the elderly.

The increase in life expectancy was made possible by measures to control...

Malnutrition, decreased maternal and infant mortality, increased access to free immunizations and medications, and improvements in care within the Unified Health System (SUS) healthcare network, among other benefits.

Other actions in the area of care. And that needs more physiotherapists every day.

trained to serve this audience safely and knowledgeably (Silva et al., 2023).

This work will contribute to the academic health community, especially professionals.

Physiotherapists, because apparently preventing and rehabilitating an elderly person seems easy, but in reality,
These professionals need structure and theoretical and practical knowledge, as well as emotional control.

physical conditioning, to interact and perform their duties both in hospital units

both in home care (residences). Thus, the work is relevant in disseminating information and keeping up-to-date.

knowledge and service improvement are crucial, as each elderly person should be evaluated by a professional.

The physiotherapist will provide individualized care based on your clinical condition, respecting your specific needs.

Balancing family and family is a challenge, but it's also rewarding.

Given the above, the objective of this work is to carry out an approach that

Consider the role of the physiotherapist in the prevention and functional rehabilitation of falls in the elderly, by through the identification of the main risk factors for falls and review of the most effective strategies.

effective methods applied by these professionals.

2. Theoretical Framework

2.1 Physiotherapy and fall prevention in the elderly

Currently, the number of elderly people is on the rise globally. According to the Organization

According to the World Health Organization (WHO), the elderly population will reach approximately 1.5 billion in 2050.

By 2050, the proportion of the world's population over 60 years of age will almost double, from 12% to 22%.

due to increased life expectancy. Senescence is the aging process associated with

Diseases are events that affect the well-being of the elderly and occur spontaneously.

Aging affects both their independence and their well-being. It brings about changes.

in the biopsychosocial-spiritual (BPSE) fields, in addition to the physical and functional (Costa et al., 2021; McRae,

2025).

In Brazil, the occurrence of falls is a major public health concern.

which is seen as one of the leading causes of injury and death among people over 60 years. Incidents like these can cause various severe and/or even irreversible traumas in elderly people, such as those with head trauma and hip fractures, bedridden patients, and those in wheelchairs. wheels, which in turn contribute to a reduction in functional capacity, independence and Mortality is increasing. Each year, approximately 30% of seniors aged 65 and over suffer [deaths].

Falls, causing serious injuries, reduced mobility, and functional loss in daily activities.

(Junior et al., 2022).

In the context of elderly health after a fall, prevention or physical rehabilitation becomes crucial.

even more relevance for the care provided by the physiotherapist. Because, among numerous adaptations, the

The elderly person and their family need to make arrangements to receive assistance at home or in a hospital, whether social, psychological, motor, nutritional, medical, nursing, physiotherapy, among others, the

Elderly people will need a technical team composed of various specialists, each responsible for their specific needs.

The individual needs of the patient, in addition to a clean, suitable environment, healthy food and nutritious, time management and other factors that are essential for the functioning of the activities, including family members. Institutions, homes, recreational spaces, hospitals, and nursing homes still need of adapted physical space with ramps, corridors and handrails that can improve mobility and the safety of elderly residents, in order to prevent falls or recurrences (Molin et al., 2024).

The elderly face various difficulties resulting from aging, and even in Brazil...

Despite numerous public policies aimed at these people, they still face legal challenges.

challenges related to "life and physical integrity insurance contracts, especially regarding their

"Renewal in vulnerable contexts." In light of this, Law No. 15.040/2024, through article 124...

The aforementioned law specifically addresses some possibilities for non-renewal of contracts.

security personnel, while also observing whether such an act is not the result of discrimination or exclusion.

Indirect discrimination against the elderly person, due to their age. Therefore, an elderly person who requires greater care,

Investment resulting from a decline is susceptible to encountering uncomfortable situations such as

Year V, v.2 2025 | Submission: October 25, 2025 | Accepted: October 27, 2025 | Publication: October 29, 2025 these issues occur in their daily lives, leading to mutual strain until the problem is resolved (Pereira et al., 2025; Brazil, 2024).

A fall can be characterized as the displacement of the body, where through movement...

It moves from its initial position and height, mostly downwards, as a consequence of not being able to...

correcting the displacement before a fall, or even if the fall doesn't occur but assistance is needed to avoid it.

a. Falls occur due to intrinsic factors, stemming from physiological changes in the process of aging, illnesses, and the effects of drugs. There are also extrinsic factors,

resulting environmental and social changes that the elderly face. Thus, understanding and studying these

These factors help in creating efficient protocols that, in addition to preventing falls, will provide...

better quality of life for the elderly (Dutra et al., 2024).

Regarding fields and opportunities for practice, physiotherapy provides a

A wide range of areas of intervention. In addition to working in hospitals and clinics, physiotherapists

They can work in sectors such as public health, participating in primary care programs, promoting health and preventing disease. This is within the context of the policies of the Unified Health System (SUS).

(SUS), home-based physiotherapy for the elderly within the Family Health Strategy (ESF) plays a

The professionals play an important role, offering a variety of practices, protocols, and parameters.

They can work both in rehabilitation and in the prevention of falls and their complications, allowing that the elderly receive assistance in an accessible way, assessing the family environment, issues economic and social factors are needed so that interventions can be implemented more effectively. (Alves; Lopes, 2022).

The role of the physiotherapist in elderly care within primary care and Family Health Strategy (ESF) settings is fundamental for To promote health and improve the quality of life of the community. The physiotherapist's service.

It should be carried out in such a way as to evaluate each patient individually, considering the following aspects: motor, cognitive, and social skills. In addition to assessing "mobility, balance, muscle strength, and..."

"Risk factors for falls and disabilities," the physiotherapist can create a care plan with

Based on this analysis, focusing on the education of the patient, family members, and their caregivers, providing guidance on self-care, home exercises, and environmental adaptations such as removal of carpets and installation of grab bars on the walls, with the aim of rehabilitating or to prevent falls in the elderly (Ferro et al., 2025).

3. Materials and methods

This study is a qualitative, descriptive, and exploratory literature review.

based on publications found in the electronic databases LILACS, SCIELO, Library

Virtual Health and periodicals, searching for publications on the role of the physiotherapist in prevention.

Year V, v.2 2025 | Submission: October 25, 2025 | Accepted: October 27, 2025 | Publication: October 29, 2025 and fall rehabilitation in the elderly. The research was conducted using publications published between The periods covered are from 2021 to 2025, with the data collection period for the survey being February. August 2025.

For the research for this work, 47 publications were initially found, and of these were...

30 were selected for the study, and for the writing of the paper they were

More publications related to the topic have been added to provide greater support for it.

understanding the selected material that met the inclusion and exclusion criteria. They were

The following keywords were used: Physiotherapy. Elderly. Fall. Prevention.

Inclusion criteria included publications that address the topic.

Works published in full, in English and/or Portuguese, were excluded.

that were not exclusively related to keywords and in other languages.

4. Results and discussion

The role of the physiotherapist in the prevention and rehabilitation of elderly people who have suffered falls. It is fundamental to reducing this serious and impactful scenario in various aspects of the elderly person's life. and their families. Thus, through the creation of a graph, he decided to present an analysis.

An expository overview of the main types of fractures resulting from falls that are most common in the elderly.

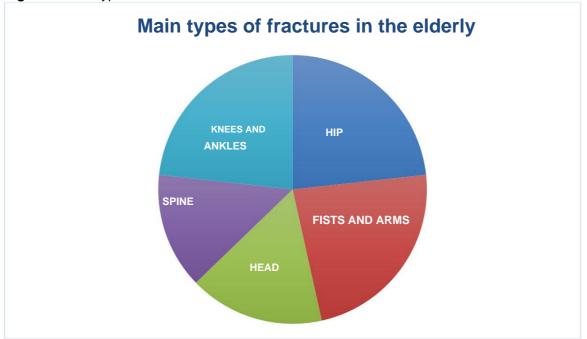


Figure 1: Main types of fractures:

Source: Authors, based on information from the Brazilian Society of Orthopedics and Traumatology (SBOT), 2025.



Silva et al. (2025) describe that the tendency to fall is a direct consequence of the changes.

that occur in the body with aging. This can be influenced by factors such as

decreased muscle strength, sensory difficulties, unsuitable environments, instability when...

balance problems, weakness in the legs, dizziness, hearing loss, arthritis, and the use of certain medications, such as

Psychotropic drugs, sedatives, and steroids. It is estimated that approximately 30% of elderly people suffer from...

Falls occur every year, which can cause serious health problems, both physical and mental.

biopsychosocial.

According to Toneto et al. (2025), a prospective analysis of the cases was carried out in their work. admitted to a public hospital located in the state of Minas Gerais, which provides tertiary care to the population. The institution had a total of 530 beds linked to the Unified Health System.

Health (SUS). The study was conducted with individuals aged 60 years or older.

Those who have undergone surgical procedures to correct fractures in any part of the body.

The main reasons why elderly people suffer fractures are falls, which account for 66% of cases.

and traffic accidents involving motorcycles, cars, trucks or pedestrian collisions, responsible for

24%. One of the patients, however, had a fracture caused by trauma whose mechanism was not...

identified. The most common fractures occurred in the lower limbs, representing 54.9% of the cases.

In some cases, including the femur, acetabulum, tibia, ankle, and metatarsal, the most common fracture was a femur fracture.

The most frequent occurrence was 37.2%. Most patients presented with only one fracture, which

This happened to 84.3% of them.

In line with findings by Ellwanger Freire et al. (2024), they highlight in their studies

Hip fractures are quite common when it comes to falls among the elderly. These fractures

They can occur in the distal part, in the diaphysis, or in the proximal region of the bone. They can bring

Negative consequences, such as difficulty moving and an increased risk of death. Furthermore,

Falls generate costs for the public health system. When people need to be hospitalized.

For a prolonged period, there is a greater chance of developing infections or new ones arising.

chronic diseases.

According to data from Brazil (2023), from the Hospital Information System of the Unified Health System (SIH/SUS), most hospitalizations in the elderly are due to falls.

It occurred in the 60-69 age group, representing 37.7% of cases and corresponding to

30.3% of the total amount spent on these hospitalizations. For those aged between 70 and 79, the number of

Hospitalizations were slightly lower, at 32.2%, but the associated costs were slightly higher.

reaching 32.8% of the total value. For seniors aged 80 or older, the cost of hospitalizations...

The drop was even more significant, representing 36.9% of the total value.



The following table was created for didactic purposes, in which 10 studies were selected.

and analyzed comparatively the risk factors for falls and the actions of physiotherapists, separating-

The following items are included: author and year, risk factors for falls, and physiotherapy interventions.

TABLE 1: Risk factors for falls and physiotherapy interventions.

RISK FACTORS FOR FALLS	PHYSIOTHERAPEUTIC ACTIONS
Polyted to the olderly	
Related to the elderly:	• Patient instructions:
Advanced age (80 years and older);	Have annual eye and physical examinations;
• Female;	Maintain a diet with adequate intake of calcium and vitamin D
Previous history of falls;Immobility;	Sunbathe daily;
Low physical fitness;	Participate in physical activity programs that aim to
Muscle weakness in the lower limbs;	develop agility, strength, balance, coordination, and
Weak hand grip; impaired balance;	improve quadriceps strength and ankle mobility;
Slow gait with short steps;	Avoid excessive consumption of alcoholic beverages;
 Cognitive impairment; 	Keep an up-to-date list of all medications you are taking or usually take,
 Parkinson's disease; 	and give it to the doctors you consult with;
 Use of sedative, hypnotic, and anxiolytic medications; 	Make sure all medications are clearly labeled and stored
 Decreased muscle strength; 	in a suitable location; Take your medication at the correct times and in the correct way.
Osteoporosis;	
Abnormalities in walking;	which was prescribed by the doctor; • Never walk around in just your socks;
Cardiac arrhythmia;	Other: Actions of the physiotherapist:
Changes in blood pressure;	The physiotherapist is able to assess, treat and prevent
• Depression;	neurological, respiratory, cardiovascular and
Senility;	musculoskeletal disorders that may interfere with and
Osteoarthritis, hip fragility, or balance problems;	cause limitations to the body's functionality, in order to promote functional independence;
 Neurological disorders (stroke, Parkinson's disease, multiple sclerosis, and Alzheimer's 	 Engage in physical activities, stretching, muscle strengthening, gait and balance training, swimming,
disease);	Pilates, and kinesitherapy;
Urinary and bladder dysfunction;	
History of falls;	
Decreased vision;	
Hearing loss; Correct that offices the horses.	
Cancer that affects the bones;Changes in the feet (large toenails, painful	
bunions).	
Related to the environment:	Remove anything from your home that could cause slips and
 Lighting: poorly lit environments increase the risk of falls; 	install supports, handrails, and other safety accessories;
Architecture: poorly planned houses increase	Wear shoes with non-slip soles;
the risk of falls;	• Tie your shoelaces;
Furniture: improper placement hinders	• Replace any slippers that are deformed or too loose;
movement, and unstable furniture does not	
provide support;	 Use a shoehorn or sit down to put on your shoes;
Space: slippery objects scattered around the	Avoid high heels and shoes with smooth soles;
house pose a risk; • Colors: a very dark environment increases the	 Install some type of lighting along the path from your bed to the bathroom;
chance of falls.	Don't leave your bedroom floor messy;
	Repair any worn areas of the carpet immediately;
	Remove door sills taller than 1.3 m;
	Portable showers are more suitable;
	Keep some type of lighting on during the night.

Source: Authors, based on data from the National Institute of Traumatology and Orthopedics (INTO), 2025.



According to Nunes (2024), the elderly and their families should invest in Fall prevention, mainly through adaptations to the environment, the bedroom, living room, bathrooms, hallways, garden, and kitchen. Nowadays, the physiotherapist is part of the multidisciplinary team in both both in hospitals and in primary care, and can help identify fall risks using assessments. such as the Timed Up & Go test, the Berg Balance Scale, the Risk Assessment Scale of The fall at home and the Morse scale, which is one of the most widely used today. Therefore, the A physiotherapist helps reduce harm to the patient and improves their quality of life. Therefore, for To prevent primary or recurrent falls, the elderly person or their family members need to involve the...

As pointed out by Gonçalves et al., (2024), a literature review was carried out. highlighting that falls are a large part of the external factors responsible for injuries. intentional. These falls are identified in the International Classification of Diseases (ICD-9) by E880-E codes, and in ICD-10 by the W00-W19 codes. This latter classification covers a a variety of fall types, including those that occur at the same level, and from higher levels. and other unspecified causes. According to the World Health Organization (WHO), falls are often defined as "inadvertently coming to rest on the ground or another lower level, excluding intentional changes in position to lean on furniture, walls, or other objects.

According to the study by the author Tomaz et al., (2025), Physiotherapy has as a

Among its resources is kinesiotherapy, an exercise program aimed at functionality, having as

Results include improved physical conditioning, postural alignment, and reduced disabilities.

Relaxation, pain relief, and improved quality of life—these interventions contribute to creating

A safer and more mobility-friendly environment for the elderly, helping to reduce the risk of accidents.

inside the home. Furthermore, the physiotherapist can guide both the elderly person and their family on the...

The importance of maintaining an active routine and making adjustments to daily activities, thus ensuring more and autonomy.

In this same context, Tissot and Vergara (2023) explain that physiotherapy plays a very important role. Physical therapists are important in the prevention and recovery from falls and fractures in the elderly. specialized professionals in evaluating and treating muscle and movement problems, and the performance For them, it is essential to prevent injuries and help in the recovery of the ability to perform activities. Normally. Through physical exercise programs, the physiotherapist works on the muscles, To improve balance, increase flexibility, and develop coordination in older adults, factors that They are essential for preventing falls.



This research contributes theoretically and methodologically by intensifying and highlighting the importance the role of the physiotherapist in the prevention and functional rehabilitation of falls in the elderly, improving the quality of life of older people, while also alerting the government, society and family members about the need to implement policies and actions that help reduce the risk of Falls in this age group.

Therefore, to prevent primary or recurrent falls, the elderly person, their family members, and Healthcare professionals need to involve physiotherapists in this process, since the rate of Life expectancy has been increasing, and this requires investment in the education of the population and Training for physiotherapy professionals is essential, as they are indispensable at this stage.

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