



## How to direct the training of physiotherapists in Gerontology in Brazil in the face of population aging?

### Como direcionar a formação do fisioterapeuta em Gerontologia no Brasil diante do envelhecimento populacional?

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**BACKGROUND** | The rapid aging of the Brazilian population has changed the health scenario. Such a change requires physiotherapists to be prepared to deal with the specificities of this population. The *Associação Brasileira de Fisioterapia em Gerontologia* - ABRAFIGE (Brazilian Association of Physical Therapy in Gerontology), which has the mission of strengthening the specialty and the purpose of promoting qualified assistance in physical therapy in gerontology, proposes fundamental skills for training in teaching in undergraduate and graduate courses in physical therapy in gerontology. This initiative aims to assist administrators at higher education institutions in different regions of Brazil in the planning of such courses to improve the quality of the education of physiotherapists in this field.

**KEYWORDS:** Aging. Physical Therapy Specialty. Gerontology. Curriculum. Competency-Based Education.

**CONTEXTO** | O rápido envelhecimento populacional brasileiro mudou nosso cenário de saúde, o que exige que o profissional fisioterapeuta esteja preparado para lidar com as especificidades desta população. A Associação Brasileira de Fisioterapia em Gerontologia (ABRAFIGE), que tem a missão de fortalecer a especialidade e promover assistência qualificada em Fisioterapia em Gerontologia, propõe uma relação das competências fundamentais para formação no ensino nos cursos de graduação em Fisioterapia e de pós-graduação lato sensu em Fisioterapia em Gerontologia. Essa iniciativa visa auxiliar os gestores das Instituições de Ensino Superior das diversas regiões brasileiras no planejamento de tais cursos de forma a melhorar a qualidade da formação dos fisioterapeutas nessa área.

**PALAVRAS-CHAVE:** Envelhecimento. Especialidade de Fisioterapia. Gerontologia. Currículo. Educação Baseada em Competências.



Population aging is occurring rapidly, with the number of individuals 65 years of age or older expected to reach an estimated 1.5 billion people around the world by the year 2050.<sup>1-3</sup> In Brazil alone, the population of older people is expected to reach more than 30 million by the year 2030<sup>4</sup>, with projections that one in every four Brazilians will be 65 years or older by the year 2060.<sup>5</sup> This demographic transition has changed the epidemiological profile of the country, which is currently characterized by a triple burden of diseases with the concomitant presence of infectious, parasitic and deficiency diseases, high morbidity and mortality due to external causes and a predominance of chronic and degenerative diseases.<sup>2,6</sup> Moreover, the increase in the prevalence of geriatric syndromes creates a scenario in which a portion of the population will age with some functional loss and another portion will depend on long-term care.<sup>1-3,6,7</sup>

Thus, health actions directed at elderly people should be structured along lines of care focused on individuals and their particularities as well as functioning and the monitoring of their conditions throughout the course of life.<sup>1,2,6</sup> Political policies have been formulated to ensure integrality in health care for older people, such as the Política Nacional do Idoso (National Policy for Older People)<sup>8</sup>, Política Nacional de Saúde da Pessoa Idosa - PNSPI (National Health Policy for Older People)<sup>9</sup> and (Pacto pela Saúde) Pact for Health.<sup>10</sup> However, although Brazil has advanced in the formulation of such policies, difficulties remain regarding the access of the population to integral care and quality healthcare services.<sup>11</sup> Such barriers include a lack of human resources and lack of training for health professionals with regards to the needs and specificities of the older population.<sup>12</sup> This scenario underscores the need for, among other aspects, the formation of human resources in health duly trained to provide care for this population.<sup>9,13</sup> In agreement with this recommendation, the guidelines of the PNSPI define the provision of resources capable of ensuring quality health care for older people as well as the continuing education of professionals in the public healthcare system in the field of care for this population.<sup>9</sup> Specifically with regard to physical therapists, the International Association of Physical Therapists Working with Older People (IPTOP) highlights the knowledge, abilities, and skills

that these healthcare providers need to make them capable of working in a broad range of situations that affect older people and may imply functional loss.<sup>14</sup>

Furthermore, considerable growth in scientific knowledge has occurred in the area of physical therapy in gerontology in recent years. A brief survey of the PubMed database revealed publications on this subject since 1950. However, an inflection point on the curve of the number of scientific articles has occurred since 2014, and today (December 2022), we have more than 4,488 publications on this topic, which provide the field with evidence that needs to be reflected in the classroom and, consequently, applied by physical therapists in clinical practice.

It is in this context, and after the intense efforts of physical therapists who have worked in the field of physical therapy in gerontology in Brazil, that two important initiatives were implemented by the *Conselho Federal de Fisioterapia e Terapia Ocupacional* - COFFITO (Federal Council of Physical Therapy and Occupational Therapy: 1) Resolution nº 476 from December 20, 2016, recognized and regulated the professional specialty of Physical Therapy in Gerontology<sup>15</sup>; and 2) the creation of the *Associação Brasileira de Fisioterapia em Gerontologia* - ABRAFIGE (Brazilian Association of Physical Therapy in Gerontology), which is a civil association founded on January 19, 2017, with an organizational, assistance, technical, scientific-cultural, promotional and educational nature, that today has more than 200 specialists in physical therapy in gerontology, with titles from ABRAFIGE and COFFITO, spread throughout Brazil.

ABRAFIGE has the mission of strengthening the specialty of physical therapy in gerontology, contributing so that specialists are recognized throughout the country and play an important role in the health and wellbeing indicators of the Brazilian population as it ages. Its purpose is to strengthen and promote quality care in physical therapy in gerontology within the Brazilian public health care system, develop and implement strategies for the training and updating of specialists in this field and establish criteria and guidelines for awarding the title of specialist in accordance with current legislation.

Despite its importance and the work of physical therapists on the three levels of care, considerable heterogeneity is found in the profile of physical therapy courses at higher education institutions in Brazil with regard to teaching directed at physical therapy in gerontology and with regard to the education of specialists in this field.<sup>13</sup>

It was in this context that ABRAFIGE united a college of experts at the First Colloquium of Teaching in Physical Therapy in Gerontology, held in October 2018 at the *Conselho Regional de Fisioterapia - CREFITO* (Regional Council of Physical Therapy) 4, in the city of Belo Horizonte/MG. One of the objectives of this meeting was to discuss and formulate a proposal about the competencies and the essential contents in the education of trained physiotherapists in terms of integral care for the health of elderly people. The formulation of such competencies was based on the PNSPI<sup>9</sup> and on the National Curricular Guidelines<sup>16</sup>, which establish conferring to health professionals the knowledge required for the exercise of general competencies and skills, such as health care, decision-making, communication, administration and management, and continuing education. This proposal is expected to contribute to the planning of undergraduate and graduate courses in the different regions of Brazil. The document drafted by this college is available on the webpage of ABRAFIGE and contains the fundamental competencies to be developed in each realm of formal education, including the detailing of essential content, skills, and attitudes.

Therefore, undergraduate courses in physical therapy should develop the following skills in their students:

- Understand the population aging process and its implications for physical therapy, with an emphasis on functioning as an indicator of health in older people;
- Understand the process of human aging – the physiological changes of systems and the impacts on intrinsic capacity and the rehabilitation process as well as geriatric syndromes, differentiating the process of senescence and senility and knowing the implications for body structures and functions, activities and participation in elderly people's life;
- Understand concepts in gerontology (older person, aged, old age, senescence and senility, intrinsic and functional capacity, autonomy and independence, aging and myths about aging, iatrogenesis, polypharmacy) and the model of active aging proposed by the World Health Organization;
- Understand the multidimensional assessment process for older people for the establishment of a physiotherapeutic diagnosis that serves as the basis for clinical decision-making considering the model of the International Classification of Functioning, Disability and Health (ICF) to systematize information on functioning and disability;
- Select adequate assessment tools for the physical-functional profile of older people to assist in the identification and stratification of the risk of health problems in the older population and the creation of the physiotherapeutic plan together with the client and family;
- Select appropriate intervention strategies and physiotherapeutic resources on the individual and collective levels to optimize the functioning of older people on all levels of health care;
- Perform physiotherapeutic interventions based on evidence regarding geriatric syndromes and other common health conditions in older people, such as (a) pain; (b) osteopenia and osteoporosis; (c) rehabilitation following a fracture due to frailty (wrist, vertebra, and hip); (d) osteoarthritis; (e) rehabilitation before and after arthroplasty (knee and hip); (f) mobility problems and gait-assistance devices (indication, prescription, and training);
- Have a collaborative, inter-professional approach centered on older people in order to intervene in all conditions that affect this population, emphasizing aspects of dignity and respect at the individual and population levels;
- Establish effective communication with the elderly person, family, and caregiver through qualified listening and adequate language, considering the capacity and needs of the older person for the establishment of a bond and the assurance of the effectiveness of the planned interventions;

- Understand the work of physical therapists in health care and social assistance modalities for older people: Estratégia Saúde da Família (Family Health Strategy), Núcleo Ampliado de Saúde da Família e Atenção Básica - NASF-AB (Expanded Family Health and Primary Care Center), outpatient clinics, rehabilitation centers, reference centers, hospitals, home care programs, day centers, community centers, and assisted-living facilities.

With regard to specialists in physical therapy in gerontology, a more in-depth approach is expected in terms of the issues that affect older people. Thus, graduate courses should advance in the competencies stipulated for undergraduate courses and, additionally, should involve the formation of the following competencies:

- Know the legislation and policies directed at older people, serving as an agent that ensures rights and protection, especially in cases of abuse and violence;
- Defend and communicate strategies and actions that stimulate and promote the autonomy and independence of older people in different scenarios in which physical therapists perform their work;
- Understand the aging process and motor control;
- Select adequate assessment tools for the physical-functional profile of older people based on patient history, clinical exams, and complementary exams, interpret the results, hierarchize problems and needs, and consolidate the physiotherapeutic diagnosis with the aim of creating the physiotherapeutic plan together with the client and their family;
- Base the clinical decision-making process on physiotherapeutic and multidimensional assessments in accordance with the biopsychosocial model proposed by the ICF and evidence-based practice.
- Select and interpret health markers and indicators for older people to stratify risk groups with the aim of planning and organizing promotion, prevention, and rehabilitation actions for this population;
- Differentiate clinical cases that can be followed up by physical therapists who are specialists in other fields from those that should be followed up by physical therapists who are specialists in gerontology, based on a multidimensional profile, understanding that chronological age is not a determinant for the work of physical therapists who are specialists in gerontology;
- Establish prognoses, define short-, medium- and long-term intervention goals and evidence-based criteria for discharge and/or referral to other professionals, recognizing the specificity of the potential of rehabilitation/recovery for each older person;
- Understand the specificities of training principles and the prescription of physical exercise, power training, muscle strength and endurance, functional training, and physiotherapeutic resources for older people;
- Be able to identify, assess and intervene in cases with multi-morbidities of high clinical complexity and be capable of communicating integral care for older people with the multi- or inter-professional team in various care modalities through theoretical and, especially, practical activities;
- Know biological and epidemiological markers of aging to stratify risk groups, plan and organize promotion, prevention, and rehabilitation actions for this population;
- Understand the function of physical therapy in gerontology in the hospital setting, upon discharge and after discharge from the hospital;

- Understand the process of finitude and death and the role of physiotherapists on the palliative care team.

Due to its social role as chancellor of the title of specialist in physical therapy in gerontology, ABRAFIGE believes that this proposal, which guides the educational process (undergraduate or graduate courses) in the field mentioned, is an important step towards the qualification of health care for older people. The association also believes that dialog with other fields of health and other sectors of society is fundamental to achieving integral health care for this population.

### Authors' contribution

Alexandre TS participated in the conception, design, writing of the manuscript, critical review, and approval of the final version to be published. Arantes PMM, Menezes RL, and Pegorari MS contributed to the design, writing of the manuscript, critical review, and approval of the final version to be published. Pereira DS, Molina FF, Perracini MR, Alencar MA, and Mazzei SC participated in the conception, design, and writing of the manuscript. Lustosa LP is authored in memoriam and participated in the conception, design, and writing of this manuscript.

### Conflicts of interests

No financial, legal or political conflicts involving third parties (government, companies and private foundations, etc.) have been declared for any aspect of the submitted work (including, but not limited to, grants and funding, participation in advisory boards, study design, preparation manuscript, statistical analysis, etc.).

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