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Profile of elderly care in physiotherapy at a federal university between 2009-2019: retrospective study

Perfil de idosos atendidos na fisioterapia em universidade federal entre 2009-2019: estudo retrospectivo

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ABSTRACT
This study aimed to analyze the profile of elderly people seen in a physical therapy research laboratory in Recife. It was a descriptive, longitudinal, and retrospective study that analyzed medical records of elderly patients ≥ 60 years old, dated between 2009-2019. The variables collected were sociodemographic, clinical, and anthropometric and data analysis was performed in SPSS, version 23.0, using descriptive analysis. Categorical variables are expressed in absolute and relative frequency, and quantitative variables in mean and standard deviation. Data from 187 elderly people were analyzed, with a mean age of 68.88 ± 6.47; 154 (82.4%) were female; 80 (43%) were married and 122 (52%) lived in Recife. Of the cities in the metropolitan region, Jaboatão dos Guararapes showed a large concentration of this population. The outcomes presented a population that is overweight and whose predominant diagnosis was osteoporosis. Among the comorbidities frequently associated are systemic arterial hypertension, obesity, osteoarthritis, joint pain, and diabetes. The profile of elderly people attended at the Federal University of Pernambuco was important to identify the main characteristics of this population, their comorbidities and thus guide clinical approaches to support the Unified Health System (UHS).

Keywords: Aging. Health of the elderly. Physical therapy.

RESUMO
Este estudo teve como objetivo analisar perfil de idosos atendidos em laboratório de pesquisa em fisioterapia do Recife. Foi um estudo descritivo, longitudinal e retrospectivo que analisou prontuários de pacientes idosos ≥ 60 anos, datados entre 2009-2019. As variáveis coletadas foram sociodemográficas, clínicas e antropométricas, e a análise dos dados foi realizada no SPSS, versão 23.0, utilizando análise descritiva. As variáveis categóricas estão expressas em frequência absoluta e relativa, e as quantitativas em média e desvio padrão. Foram analisados dados de 187 idosos, com média de idade 68,88 ±6,47; 154 (82,4%) eram do sexo feminino; 80 (43%) eram casados e 122 (52%) residiam em Recife. Das cidades da região metropolitana, Jaboatão dos Guararapes apresentou grande concentração dessa população. Os desfechos apresentaram uma população que está acima do peso e cujo diagnóstico predominante foi osteoporose. Dentre as comorbidades frequentemente associadas estão a hipertensão arterial sistêmica, obesidade, artrose, dores articulares e diabetes. O perfil de idosos atendidos na Universidade Federal de Pernambuco foi importante para identificar as principais características dessa população, suas comorbidades e assim nortear abordagens clínicas de suporte ao Sistema Único de Saúde (SUS).

Palavras-chave: Envelhecimento. Fisioterapia. Saúde do idoso.

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INTRODUCTION

Aging is a physiological process with biopsychosocial repercussions, which despite having modifications determined by genetics, is influenced by lifestyle, eating habits, physical exercise, and environmental factors, being directly associated with quality of life in senescence[1]. The authors also report that aging should not be confused with sick since comorbidities usually presented by this population are also linked to failures in prevention and health promotion[1].

According to the World Health Organization (WHO)[2], there are about 841 million elderly people in the world, and the projections for 2050 are that this number will be 2 billion, thus characterizing population aging as a universal phenomenon in constant growth. In 2017, Brazil had about 30.2 million elderly people. This phenomenon has been going on so acelerada[3] and lacks the development of public policies that promote safety, health, education, and employment for this population[4].

Therefore, carrying out studies that seek to identify the population profile is essential to verify the main difficulties presented by the aging process[5]. So, from then able to take the necessary actions related to subsidies to prevent and restructuring measures by the State[6].

Physiotherapy plays an important role in public health policy, by rehabilitating and preventing metabolic, neurological, and musculoskeletal system disorders that interfere with the individual's functional capacity, and reincorporation in society[7]. The development of studies that characterize this population is necessary to promote the creation of new physical therapy programs.

Therefore, the objective of this study was to analyze the profile of the elderly population benefited by the projects developed at the Laboratory of Kinesiotherapy and Manual Therapeutic Resources of the Federal University of Pernambuco (UFPE), whose mission is to offer the community services that promote a better quality of life based on the scientific advances.

METHODS

This is a descriptive, longitudinal and retrospective study, which sought to identify the sociodemographic and clinical characteristics of the elderly population attended at the Laboratory of Kinesiotherapy and Manual Therapeutic Resources (LACIRTEM), Department of Physiotherapy, of the Federal University of Pernambuco, between the years 2009 to 2019, approved by CEP / CCS / UFPE with opinion no. 436.477.

The sample analyzed the medical records that met the following eligibility criteria: a) Inclusion: (I) Age ≥60 years; (II) Readable data; and, (III) Dated between the years 2009 to 2019. b) Exclusion: (I) Medical records of repeated patients; and, (II) Absence of clinical data.

Data were collected by identifying the medical records of all research directed to the elderly population, where for the sociodemographic variables analyzed were age (≥60 years), age (60-64, 65-69, 70-74, 75-79 , and ≥80 years old), sex (female and male), marital status (married, single, divorced and widowed), occupation (retired, from home, paid and aid work) and home region (Recife, metropolitan region, interior of PE and another state) with the specific municipality. In clinical data were identified classification body mass index - BMI (weight Low: <18.5 kg/m^2, typical weight: 18.5 - 24,99Kg/m^2; Pre-obese: 25.0 - 29,99Kg/m^2; Obesity Grade I: 30.0 - 34.99Kg/m^2; Obesity Grade II: 35.0 - 39.99Kg/m^2; Obesity Grade III: ≥ 40Kg/m^2), diagnosis, associated pathologies.

Data analysis was performed using the Statistical Package for the Social Science (SPSS, IBM®, USA), version 23.0, using descriptive analysis. Categorical variables are expressed in absolute and relative frequency, and quantitative variables in mean and standard deviation.

RESULTS

It was found that of the 237 medical records cataloged, 187 were within the eligibility criteria, therefore, included in the research and 50 were excluded, where they were incomplete (37) or were repeated patients (13). Among the medical records analyzed, it was observed that the population served was composed mainly of individuals between 65 - 69 years old and female (Table 1). The most common diagnoses were observed: osteoporosis, joint pains and followed by postural dysfunction.

In many cases, these were mostly associated with cardiovascular (systemic arterial hypertension), metabolic (obesity), rheumatological (arthrosis) and musculoskeletal (joint pain) comorbidities.

Table 1. Characterization of demographic variables, age, gender, expressed as mean and standard deviation, absolute and relative frequency

Sociodemographic variables		Absolute Frequency	Mean and standard deviation	Relative Frequency (%)
Age		187	68,88 ±6,47	-
	60 – 64 years	49	-	26
	65 – 69 years	66	-	35
Age range	70 – 74 years	40	-	22
	75 – 79 years	21	-	11
	≥ 80 years	11	-	6
Gender	Female	154	-	82,4
	Male	33	-	17,6
Associated Pathologies				
Cardiovascular	Arterial hypertension (95)	117	-	63
Metabolic	Obesity (51); Diabetes (11)	82	-	44
Rheumatological	Arthrosis (65); Osteoporosis (35)	72	-	39
Musculoskeletal	Joint pain (51); Neck pain /Lumbar pain (27); Postural dysfunctions (16)	72	-	39
Neurological	Depression (50*); Parkinson (9)	4	-	2

* It was verified in only 2 samples.

In figure 1 we observed that most of the population was married, followed by widowed and unmarried.

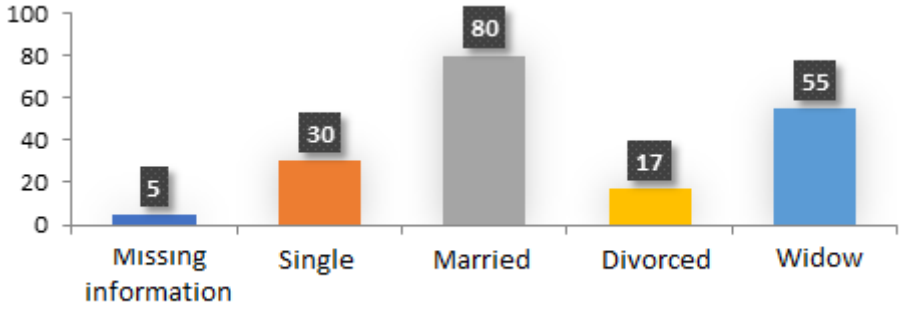

Figure 1. Result in relative frequency of marital status.

It was found in figure 2, that the predominant occupational situation was that of retired individuals and the household, however, 16% were still active in paid work.

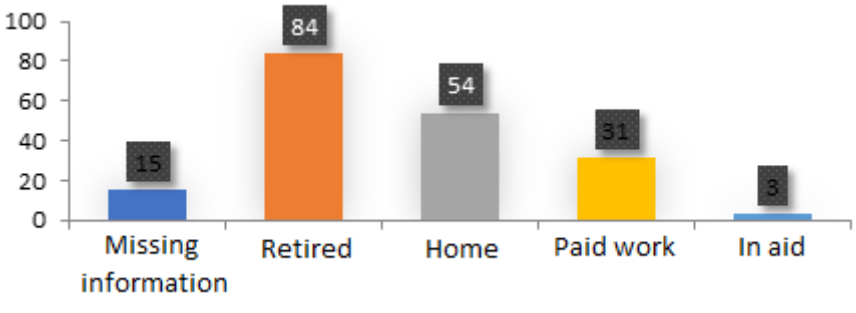

Figure 2. Result in relative frequency of the occupational situation.

We also observed that the vast majority of the population lived in the capital, and among the 35% residents of the metropolitan region, the municipality of Jaboatão dos Guararapes was the one that stood out the most (Figure 3).

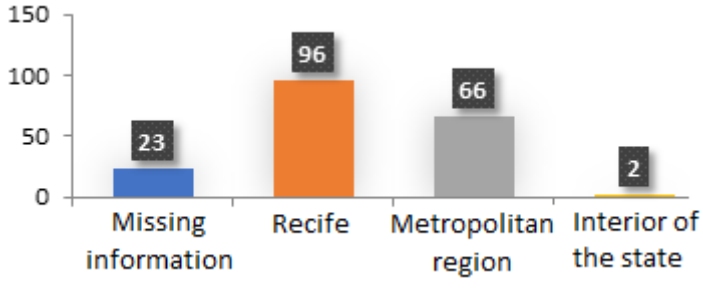

Figure 3. Result in relative frequency of the home region.

As for the classification of BMI it was found that 40% of the sample was overweight, and 23% were classified as obese - Grade I (Figure 4).

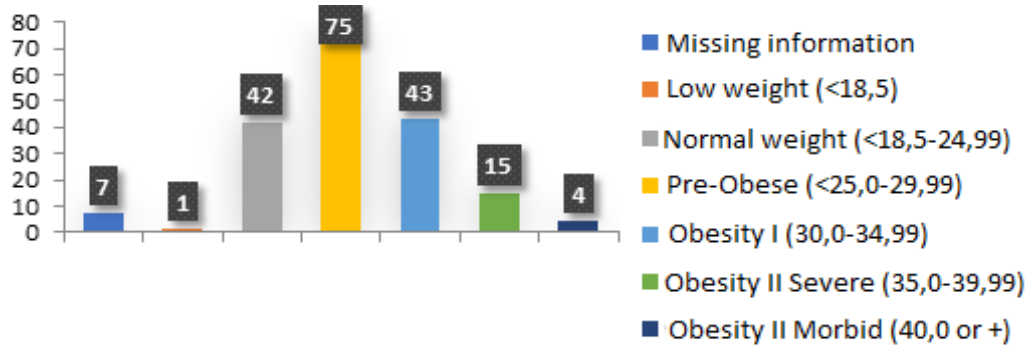

Figure 4. Result in relative frequency of the Body Mass Index (BMI).

DISCUSSION

In this study, it was possible to identify the main characteristics of the elderly attended at LACIRTEM, where it was observed that individuals aged between 65 - 69 years were the public that was most present in this service, followed by individuals between 60 - 64 years. These data corroborate those of the IBGE[8], which informs the age group with the highest number of elderly individuals in the country, which is 60 - 64, thus characterizing young elderly people.

The female was the predominant, which is in accordance with the statement of the call "old age feminization", which explains the predominance of this relationship to the opposite sex is closely related to increasing women's longevity[9]. However, this longer life span makes them more vulnerable to intrinsic factors[10], such as lower lean mass and muscle strength, which can contribute to the development of chronic diseases[11], highlight the cardiovascular, neurological diseases, rheumatoid arthritis and cancer[12]. Therefore, they are more careful with their health 13 and resort to different health services more frequently[14]. Already men care less, and according to some authors this fact is associated with own socialization of men, where care is not seen as a male practice[15,16,17].

It was found that there were more married elderly people, followed by widowers and singles. This result indicates a good social index, as elderly people who live with their partners, that is, who have an established marital base, enjoy greater emotional support when compared to widowers or singles[18]. Additionally, a study of Mexican elderly, found that the lack of spouse was important factor that was associated with a state of greater fragility[19], corroborating other studies[20,21]. Therefore, it is necessary to identify the elderly marital status to understand your emotional state that may be affected and negatively influencing the physiological, social and clinical factors[22].

Staying socially active, that is, continuing to provide support for the family helps in the elderly's well-being process. As people get older their social participation decreases over the distance to the work environment, as in the case of this study, it was found that the vast majority of elderly found themselves retired (45%) and only 16% remained active , affecting social contact[23].

According to environmental psychology, the quality of the environment to which an individual is inserted directly influences your behavior and your health[24]. Therefore, being in an environment that offers different health services can improve the population's quality of life. Although the Executive Secretariat for Health Regulation reports that there was a growth in the supply of outpatient services in Pernambuco in 2017[25], data from the State Health Secretariat[26] show that these services are concentrated in the capital, and can be a barrier to health promotion and the reason why people move to Recife, capital, in search of treatment. This fact corroborates the present study,

which found that most of the analyzed population was residing in the capital, but a large percentage (62%) were residents of Jaboatão dos Guararapes, demonstrating the lack of public policies in this area.

The aging process promotes several physiological changes, including nutritional status, which has a close relationship with the eating habits[27]. Thus, depending on the adopted diet, the elderly may present a malnutrition, which has a relationship with the morbidity and mortality of this population[28], as well as they may present a state of obesity, which can be related to several factors, including the sedentary lifestyle[29,30].

Given the above, it is essential to identify which classification this individual is inserted to understand what their potential limitations. Thus, the BMI calculation found that the vast majority of elderly people who attended the service was classified as overweight (grade I), which may be related to the high rates of physical inactivity, promoting a sedentary lifestyle, as seen in Pernambuco, where they identified that 68.5% of the elderly assisted in basic health units were sedentary[29]. In addition, sedentary behavior is found in a multitude of places and situations: at work, at school, at home, in transportation and in leisure activities, and is accompanied by other harmful habits such as increased caloric intake or smoking[31].

The obesity it is related to many diseases, such as: hypertension, type II diabetes, metabolic syndrome, cardiovascular diseases, among others[32]. Thus, this study reaffirms what the literature presents by identifying the high number of individuals with chronic diseases, especially those of the cardiovascular system, with a focus on systemic arterial hypertension (SAH), the biggest cause of death in the country and the most comorbidity present among the elderly population[33].

The analysis of this population profile is in line with what was shown by scholars when they identified that in 2005, the city of Recife, Pernambuco, showed 25.9% of elderly hospitalizations in the Unified Health System due to diseases of the circulatory system[34]. However, regionally, Northeast has a high percentage of elderly with hypertension (65%) compared with Diabetes Mellitus (19%)[35].

Systemic changes with higher prevalence rate among older people who attended the laboratory in recent years has osteoporosis (44%), whose main feature is the reduction of bone mineral density, leaving the skeletal system fragile and prone to fractures[36].

Osteoporosis is a silent disease and your changes are perceived as joint pain arise as a result of bone microfractures, or even hip fractures, spine and wrist[37,38], which is in agreement with the main comorbidities found by this population in this study, which were joint pain (51%) and arthrosis (65%).

CONCLUSION

This study focuses on the profile of the elderly population attending a public institution and made advances in the design of clinical approaches, favoring the construction providers instruments of individual scientific and collective development, for public health policies using social data to create actions that benefit all the population.

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