Resident Population in Institutions of Long Stay for Elderly

ORIGINAL

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Abstract

Objective: To describe the clinical and sociodemographic characteristics of elderly living in long-stay institutions in the municipality of João Pessoa.

Method: Cross-sectional study, descriptive, population character. This study consisted of 324 elderly, living in six long-stay institutions for elderly in the municipality of João Pessoa. Data was collected by means of questionnaires to the elderly and/or responsible people, and analysis of patient records, and it was analyzed through descriptive statistics.

Results: 75.31% (244/324) are female. The average age between genres as 81.17 years, most unmarried, white; 53.69% unnaducated; 57.95% have an average of only 2.16 years of formal education; 64.46% were referred by relatives. Hypertension, osteoarticular and neurological diseases were the most prevalent medical conditions.

Conclusion: It highlighted the importance of qualified healthcare professionals, the pressing need for public healthcare policies directed to the particularities of this population, and a greater presence of the State in the institutions.

Keywords
Health Profile; Nursing Homes for the Aged; Elderly.

Introduction

Consisting of multiple facets, the population aging presents worldwide range. In Brazil, it occurred so accelerated, and it will still have a long journey of transformations in relation to technological and scientific advances, the drop in fertility and mortality, beyond the control of non-communicable chronic diseases, facts that have an impact on the increase of life expectancy.

2010 Demographic Census Data revealed an increase in the population of 65 years or more, responsible in 1991 for 4.8% of the population, reaching in 2010 the percentage of 7.4%, thus demonstrating an increase of 2.6 percent in the last two decades. In Paraiba State, the growth for the same period was 4.1 years, going from 67.1 years in 2000 to 71.2 years in 2010, and it presented an estimated life expectancy matched to the national one of 73.9 years [1].

The aging process is dynamic and progressive. It presents several determining factors as internal ones like the genetic heritage, or external determinants, such as lifestyle, education and the environment in which the person was and is inserted. Both lead to physiological and/or psychological changes, resulting in reduction in the individual's ability to adapt to the environment, making him vulnerable and too susceptible to pathological processes.

Coupled to population aging and to the bonus of increased life expectancy, today there is an increase in chronic diseases and chronic degenerative diseases that imposes a new demand to the Public Service – the long-term care to the elderly. Given the lack of policies to support caregivers, an alternative non-family healthcare are the Institutions of Long Stay for Elderly (ILPIs - Instituições de Longa Permanência para Idosos), although this is not what advocate protection the Brazilian policies of protection to the elderly.

Institutions of Long Stay for Elderly are places intended to serve as collective housing for elderly with or without family support. They are convenient as an alternative to take care of the most fragile individuals, with weakness to perform activities of daily life, however they present the disadvantage, mostly, to lead elderly to isolation and inactivity [2].

In recent years there are negligible studies that reflect the profile of this population, which tends to grow in number and years lived. In this economic and sociocultural context whose needs are growing, it is important to know the current epidemiological profile of elderly residents in ILPIs, providing data for a reflection about the sociodemographic and clinical issues of institutionalized elderly, with a view to provide criteria that can guide the activities of the multidisciplinary team and support the development and implementation of public policies. So, this study aims to describe the clinical and sociodemographic characteristics of elderly living in long-stay institutions in the municipality of João Pessoa/Paraíba/Brazil.

Method

This is a descriptive and population study, in quantitative approach, held in ILPIs in the municipality of João Pessoa/Paraíba/Brazil.

A study involving the survey of ILPI's by region of Brazil found that the State of Paraíba had nineteen (19) ILPIs containing 651 residents, the equivalent of 0.16% of the elderly population of the State [3]. This percentage shows the fragility in the coverage of this mode of service. Of these, six (06) are located in João Pessoa, two (02) in Cabedelo, two (02) in Patos and two (02) in Santa Rita. The others are distributed in other municipalities [3].

Institutions of Long Stay for Elderly were selected based on the record of the National Council of Social Service and the Municipal Council of Elderly/PB. Thus, all institutions registered - a total of six (6) - were contemplate in the research scenario, and elderly residents in these institutions have been part of the sampling design of the study.

The population was composed by all the elderly residents in the six ILPIs, in a total of 324 participants. The criteria for inclusion set forth previously were: 60 years old or older, reside in the institution and agreeing to participate in the study (for those who did not have physical and/or cognitive conditions to consent to their participation, this agreement was provided by their responsible people).

Data collection occurred daily in alternating shifts, in the period from January to December 2013, through the survey of medical records, interview with the elderly and, when the person presented cognitive deficit, with their caregivers. Therefore, it was used a structured instrument and validated by professionals with experience in the field, considering the sociodemographic aspects and the clinical status of the individuals.

Data were double entered and validated in Microsoft Excel, and the statistical calculations were performed in SPSS (Statistical Package for the Social Sciences) software, version 20.0. For the analysis, it was continued with the descriptive statistics technique and inferential statistical techniques through the Pearson's Chi-squared test or Fisher's Exact test. It should be noted that the significance level used in the decisions of the statistical tests was of 5% and the intervals were obtained with 95% of confidence. The quantitative study of the variables was carried out by the distribution of frequencies, which results are presented by the absolute and relative frequency percentage.

This study was approved by the Research Ethics Committee of the Health Sciences Center/UFPB, with Protocol No 0468/12, CAAE 02043712.4.0000.5188, in accordance to the 466/12 Resolution of the National Council of Health [4]. The anonymity and confidentiality of the information obtained were attended, along with all the other prerogatives.

It is emphasized that the results presented in this study were extracted from the Doctoral Thesis "Pressure Ulcer in elderly living in Long-stay Institutions: Association of incidence with risk factors, functional and nutritional assessment", presented to the Graduate Program in Nursing of Federal University of Paraíba [5].

Results

The study was composed of 324 elderly residents in the six ILPIs registered in the municipality of João Pessoa/Paraíba.

Among the elderly, 75.31% (244/324) were female and 24.69% (80/324) were male. They featured mostly older in age between 70 to 85 years (177/324), illiterate (without any year of study) (113/324), white (174/324), and singles (168/324).

Comparing demographic and clinical characterization of the individuals based on gender, it was identified younger men than women, with more years of study and married. The race was equivalent between the two groups, with a predominance of white people **(Table 1)**.

Table 1. Sociodemographic profile of elderly residents in the ILPIs. João Pessoa-PB. Brazil. 2013.

Profile	Gender				Total		Testes Estatísticos
	Male (n = 80)		Female (n = 244)		n = 324		
	Freq.	%	Freq.	%	Freq.	%	Sig. p-valor
Age							
average ± dp[a]	79.41 ± 9.58		81.75 ± 9.26		81.17 ± 9.38		0.053
Age group[b]							
< 70	14	17.50	22	9.02	36	11.11	
70 - 85	46	57.50	131	53.69	177	54.63	0.035*
> 85	20	25.00	91	37.30	111	34.26	
Level of education [b]							
Illiterate	26	35.14	87	38.16	113	37.42	
Literate	15	20.27	47	20.61	62	20.53	
Elementary School	15	20.27	61	26.75	76	25.17	
High School	8	10.81	25	10.96	33	10.93	0.033*
Higher Education	10	13.51	8	3.51	18	5.95	

INTERNATIONAL ARCHIVES OF MEDICINE
SECTION: NURSING
ISSN: 1755-7682

2016

Vol. 9 No. 155
doi: 10.3823/2026

Profile	Gender				Total		Testes Estatísticos
	Male (n = 80)		Female (n = 244)		n = 324		
	Freq.	%	Freq.	%	Freq.	%	Sig. p-valor
Years of study							
average ± dp^c	3.19 ± 4.47		2.16 ± 4.13		2.43 ± 4.23		0.028*
Years of study^b							
None	24	51.06	94	71.76	118	66.29	
1 - 5	13	27.66	12	9.16	25	14.04	0.005*
> 5	10	21.28	25	19.08	35	19.66	
Skin color^b							
White	40	50.00	134	54.92	174	53.70	
Black	12	15.00	28	11.48	40	12.35	0.0634
Medium brown	28	35.00	82	33.61	110	33.95	
Marital Status^b							
Single	29	38.16	139	58.16	168	53.33	
Married	10	13.16	13	5.44	23	7.30	
Widower	17	22.37	76	31.80	93	29.52	
Stable Union	2	2.63	2	0.84	4	1.27	0.000*
Divorced	9	11.84	5	2.09	14	4.44	
Separated	9	11.84	4	1.67	13	4.13	

^{a}: (A) t test (parametric test. comparing two independent groups). met the assumptions of data normality and equal variance. No significant result: Sig p = 0.053> 0.05

^{b}: (B) Chi-square association test. Significant result: Sig (*) p <0.05. No significant result: Sig. p-value> 0.05.

^{c}: (C) Mann-Whitney U test (nonparametric equivalent to the t test). not satisfied the normality assumption. Significant result: Sig p-value = 0.028 <0.05.

Source: Own Data. João Pessoa/PB. 2013

On the number of children, 53.24% of elderly have no children or have had between 1 and 2 children, though, there have been cases of elderly people with more than 10 children. Almost all of the elderly receives a monthly income, being the retirement income their primary source (94.37%). Income, mostly (84.15%), varies between 1 and 3 minimum wages (R$678,00). About the time of institutionalization, the average was 5.18 (± 5.50) years. Among the elderly, 59.94% are in the institution at least for 2 years. With highest percentage of indication by family members (64.46%); followed by own will

(16.72%), others (neighbors, friends, bosses) 12.20%, and Social Services and hospitals 6.62%.

Concerning clinical conditions of the elderly, it was possible to check higher frequency of neurological diseases (111/324) and systemic arterial hypertension (162/324) among the study population, when analyzed in a global way. Considering separately the male and female group, it was noted the prevalence of hypertension as most recurrent (20% and 80%, respectively). It should be noted that obesity/thinness were illnesses listed only in females **(Table 2)**.

Table 2. Clinical conditions of the elderly living in ILPIs, according to sex. João Pessoa-PB, Brazil, 2013.

Profile	Gender				Teste de Qui-Quadrado^a
	Masculine		Feminine		
	n	%	n	%	Sig. p-valor
Respiratory Problems (a)	4	30.00	16	70.00	0.595
Osteoarticular diseases	8	11.80	60	88.20	0.006*
Cancer (a)	4	44.40	5	55.60	0.232
Diabetes Mellitus	19	26.00	54	74.00	0.764
Stroke	18	30.50	41	69.50	0.252
Heart disease	10	37.00	17	63.00	0.120
Peripheral Vascular Disease	5	21.70	18	78.30	0.753
Neurological Disease	22	19.80	89	80.20	0.142
Systemic Arterial Hypertension	38	23.50	124	76.50	0.606
Obesity or thinness	1	10.00	9	90.00	0.461
Paralysis (a)	3	27.30	8	72.70	0.736
Impaired Vision	16	20.00	64	80.00	0.262
Blindness (a)	5	33.30	10	66.70	0.539
Hearing Impaired	11	31.40	24	68.60	0.328
Deafness	3	60.00	2	40.00	0.099

^{a}: Chi-square association test. Significant result: Sig. (*) P <0.05 and Non-significant result: Sig. p-value> 0.05

Source: Own Data. João Pessoa/PB, 2013.

In order to check the existence of differences between the Clinical Condition of elderly and the age at which the same was entered, the distribution of individuals was performed according to age groups **(Table 3)**.

INTERNATIONAL ARCHIVES OF MEDICINE
SECTION: NURSING
ISSN: 1755-7682

2016

Vol. 9 No. 155
doi: 10.3823/2026

Table 3. Clinical conditions of the elderly living in ILPIs. according to age group. João Pessoa-PB. Brazil. 2013.

Clinical conditions of the elderly	Age group					
	60 to 70 years old		70 to 85 years old		> 85 years old	
	n	%	n	%	n	%
Diabetes Mellitus	10	13.7	47	64.4	16	21.9
Peripheral Vascular Disease	6	26.1	11	47.8	6	26.1
Impaired Vision	5	6.3	38	47.5	37	46.3
Hearing Impaired	3	8.6	11	31.4	21	60.0
Osteoarticular diseases	6	8.8	41	60.3	21	30.9
Cancer	2	22.2	4	44.4	3	33.3
Stroke	7	11.9	38	64.4	14	23.7
Heart disease	1	3.7	16	59.3	10	37.0
Neurological Disease	19	11.9	85	53.5	55	34.6
Systemic Arterial Hyper-tension	15	9.3	98	60.5	49	30.2
Obesity or thinness	1	10.0	5	50.0	4	40.0
Paralysis	3	27.3	7	63.6	1	9.1
Blindness	1	6.7	7	46.7	7	46.7
Deafness	--	--	1	20.0	4	80.0
Respiratory Problems	3	15.0	10	50.0	7	35.0
Source: Own Data. João Pessoa/PB. 2013.						

Considering the prevalence of the diseases by age groups, there is a predominance of cases of neurological diseases among the elderly in the range of 60-70 years old and above 80 years old, as well as high blood pressure in the range of 70-85 years old.

Other variable analyzed in conjunction with the clinical conditions is the time of institutionalization. The specific bands were up to 2 years; 2 to 7 years and over 7 years. The findings corroborated with the previous tables pointing prevalence of neurological diseases and hypertension as prevalent, regardless of time of institutionalization. It should be noted that most clinical conditions recorded have higher frequency among elderly with less time spent in the institution (up to 2 years - between 2 and 7 years).

Discussion

The results of this study corroborates with those of other research developed in Brazil, involving socio-demographic data of elderly residents in ILPIs [6-9]. However, in a study carried out in João Pessoa with geriatric institutionalized population, there were identified parameters that meet those detected in this study with male predominance and average age of 65.5 years. In another study, the male contingent was 53.3% and average age was 61 years old [10-11].

Although the last data census of IBGE [1] and some authors work with a view to greater female contingent among the elderly, due to greater health assistance in reproductive period, or even by less consumption of alcohol and tobacco, lower morta-lity in middle age by external causes or by cardio-vascular protection conferred by female hormones [7,12] in this study no statistically significant diffe-rence was observed between the genres, although the female population represents 75% of the re-sidents of ILPIs in João Pessoa, as it was expected before the feminization process of aging [7-8, 13-15]. With regard to education, despite the research identifying 16.88% of elderly with higher and high education, it noted 57.95% of illiterates and those considered literate in knowing to sign. It was noted also the number of years of study is higher among men (3.19±4.47). This reveals the reality experien-ced by elderly nowadays with respect to education in his childhood and youth, since only the "Constitu-tion of 1988 guarantees the indiscriminate reach of compulsory supply and essential free public educa-tion, extended to the whole population, regardless of age (art. 208, I)" [16]. This corroborates with the 2010 census data which indicates that around 67% of elderly in the Northeast region have at most 3 years of study[17]. It can be considered that this fact occurs because of the deficiency in the educa-tion policies when elderly were at school age. It is noted also the female predominance in this study, which decades ago, because of social the place they

occupied, had a difficult entry into the educational process and sometimes it was denied. In the face of a culture where the education for women was not valued, they were created to be mothers and wives, this justifies the results of the statistical analysis presented as $p<0,033$ for education level and $p<0,05$ for years of education.

Regarding marital status, prevails the single condition (53.33%) and widows (29.52%) what comes to ratify the action of the family on the elderly caring [7,12,18]. From the total, 46.76% report having children, much larger percentage to that found in a study conducted in two ILPIs of Marília-SP [14].

Family does not fit only the maintainer role, but must also be the support of love, affection and solidarity, because the children must support their parents. However not only intrinsic factors, but the lack of support policies, in several cases, have boosted family members (children, grandchildren, nieces and cousins) to find the ILPIs as an alternative to take care of their elderly. This research corroborates with others on the highest percentage of responsible for the institutionalization been the family members, and among these children. Having children isn't a fundamental for the elderly to remain and be cared in the family environment, in addition, the new arrangements for families, mothers and single parents or couples without children and children who emigrated, increment the condition that takes the elderly to institutionalization [7,11,13].

Almost all the elderly on this study receive 01 to 03 minimum wages, from their pension, been it for length of service or through social benefits, paid by the Federal Government as the Benefit of Continuous Provision, however this does not entitle them financial autonomy, since 70% of this income are intended to maintain them on the ILPI [15].

Aging is a natural process and not a pathological one. It stems from the physiological wear, which leads to bio-physiological and psycho-social repercussions. Among the clinic conditions more frequently found in the group, there are: hyperten-

sion, stroke, neurological disorders, heart disease, diabetes mellitus, and peripheral vascular disease. This is a result also referred by several authors [6-7, 11-12]. The gender relationship with the clinical condition was tested and a significant difference was obtained between the genres, having a higher percentage of female involvement. One of the clinical conditions that raise this ranking is osteoarticular diseases, which arise from structural and hormonal [14]. Although the chronicle-degenerative diseases are frequent with the aging, the institutionalization may contribute to its occurrence due to the lack of physical-education programs developed by physical educators and physiotherapists, with the focus in maintaining the functional capability of the elderly for the daily chores and activities.

With advancing age, intrinsic factor of the aging process, it unveils the functional decline, due in part to comorbidities load. However among the results the proportions for the three age groups evaluated only showed significant differences for the following clinical conditions: Impaired Hearing, Impaired Vision, Peripheral Vascular Disease and Diabetes Mellitus. Thereby, there is statistically significant difference for these groups, i.e., the age range in which the patient is inserted is an important factor to be considered in these four conditions. For IBGE, "An ageing population, with greater predominance of people 80 years old or more, is likely to develop comorbidity and disability in higher proportion than seen in areas whose concentration of old people is in a younger age group."[19]

Considering the results, there is no way to evaluate the action of time of institutionalization on health condition, since this study had a transversal vision of the situation. Through the results of proportion comparison (prevalence) for each Clinical Condition, it was possible to verify that there is no significant difference between the Clinical Condition and the time of institutionalization, leading to infer that Clinical Condition of elderly people is independent of the length of stay in the institution. Thus, the clinical

INTERNATIONAL ARCHIVES OF MEDICINE
SECTION: NURSING
ISSN: 1755-7682

2016

Vol. 9 No. 155
doi: 10.3823/2026

conditions reach elderly people regardless of the length of stay.

Chronic diseases of old age are more constant in the group of older seniors, which leads to a greater concern with respect to the use of medicines, because with advancing age sensitivity to drugs tends to be higher.

Among the drugs, the most used by seniors of the six institutions searched were the antihypertensive, antidepressants/antianxiety drugs and antiplatelet drugs. A similar result was found in other studies [6,15]. The polypharmacotherapy should be avoided, especially in the elderly by increasing the risk of drug interactions, adverse effects, causing iatrogenic, hospitalizations and unnecessary expenses. In the institutions surveyed, the elderly used, on average, 3.60 medicinal products and the variation from one to eleven medicines. A similar result was found in a study conducted in Belo Horizonte with an average of 3.45 [12] and another that worked the average number of drugs by gender, getting 4.7 for men and 4.4 for women [9].

In the case of the six ILPIs surveyed, it was noted that due to the impossibility of purchasing medicines more suitable for the clinical picture presented by residents and by inadequate coverage of the ESF to which the institution is assigned, some elderly come to take more than 5 different medications daily.

As this study presents a population base in relation to ILPI of João Pessoa, the data now discussed can be generalized to other ILPIs.

Conclusion

Although many of the residents of the ILPIs are dependent on physical or mental problems, the precarious socioeconomic condition and family abandonment were the main causes of institutionalization. Because of the progressive dependency, social fragility, chronic and acute diseases, amount of drugs used, their reactions and complications,

these elderly tend to require more and more skilled care. However, it was observed that the ILPI are not prepared to offer adequate assistance, whether as to the physical structure or to the staff qualification.

Thus, arises the need of deeper studies and public health policies directed to the particularities of this population, family/caregivers support policy and greater presence of the State in the institutions.

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