



Journal of Nursing

Revista de Enfermagem

UFPE On Line

ISSN: 1981-8963

ORIGINAL ARTICLE

MORBIDITY IN ELDERLY PEOPLE RESIDENTS IN AN INSTITUTION OF LONG-TERM CARE FOR THE ELDERLY

MORBIDADE EM IDOSOS RESIDENTES EM INSTITUIÇÃO DE LONGA PERMANÊNCIA

CARACTERIZACIÓN DE LA MORBILIDAD EN ANCIANOS INSTITUCIONALIZADOS DE LARGA ESTANCIA

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ABSTRACT

Objective: to analyze the morbidity of elderly residents in an institution for Long-Term Care for the Elderly (LTCE). **Method:** it is a descriptive and exploratory study, of the type of documentary analysis, with quantitative approach, performed in an institution of Long-Term Care for the Elderly, with a sample of 122 medical records. Our information collection was obtained by the technique of documentary analysis, directed to the field research, during 15 visits in the morning hour. The information was stored in a database, presented in tables, and analyzed according to simple descriptive statistical analysis using the SPSS 15.0 software. The research project was approved by the Ethics Research Committee on Human Beings of the Universidade Federal do Rio Grande do Norte (UFRN), CAAE nº 0247.0.051.000-10. **Results:** 90.2% of seniors had some morbidity, with a prevalence of 87.7% for chronic diseases. **Conclusion:** the profile of morbidity is consistent with the Brazilian morbidity clinical picture. **Descriptors:** Elderly; Morbidity; Health of the Institutionalized Elderly.

RESUMO

Objetivo: analisar a morbidade de idosos residentes em uma Instituição de Longa Permanência para Idosos (ILPI). **Método:** estudo exploratório e descritivo, de abordagem quantitativa, realizado em uma Instituição de Longa Permanência para Idosos, com a amostra de 122 prontuários. A coleta das informações foi obtida pela técnica de análise de documentação direta em pesquisa de campo, durante 15 visitas no horário matutino. As informações foram armazenadas em um banco de dados, apresentadas em tabelas, analisadas de acordo com a estatística simples utilizando o Software SPSS 15.0. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa em Seres Humanos da Universidade Federal do Rio Grande do Norte (UFRN), CAAE nº 0247.0.051.000-10. **Resultados:** 90,2% dos seniores possuíam alguma morbidade, sendo a prevalência de 87,7% para as doenças crônicas. **Conclusão:** o perfil de morbidade se coaduna com o quadro de morbidade brasileiro. **Descritores:** Idoso; Morbidade; Saúde do Idoso Institucionalizado.

RESUMEN

Objetivo: analizar la morbilidad de los ancianos residentes en Institución de Longa Permanencia para Ancianos (ILPA). **Método:** el estudio exploratorio descriptivo, de abordaje cuantitativo, ocurrió en una ILPA, con muestra de 122 ancianos. La información fue obtenida mediante la técnica de análisis directo de la investigación de documentación y de campo y poner en la base de datos. Los datos fueron analizados de acuerdo con estadísticas sencillas utilizando el software SPSS 15.0. El estudio fue aprobado por el Comité de Ética en Investigación en Seres Humanos de la Universidad Federal de Rio Grande do Norte bajo el CAAE nº 0247.0.051.000-10. **Resultados:** el 90,2% de los ancianos tenía alguna morbilidad, con prevalencia del 87,7% de las enfermedades crónicas, con la relevancia de los trastornos cardiovasculares con 48,4%. **Conclusión:** la caracterización de la morbilidad de los ancianos residentes se manifestaron, a través de sus resultados, el patrón de morbilidad es consistente con la morbilidad de Brasil. **Descriptores:** Ancianos; la morbilidad; La Salud de los Ancianos Institucionalizados.

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INTRODUCTION

After the World War II, Brazil, with more intensity, became a country of young people due to their population explosion. There was a decline in mortality rate while fertility rate remained high. However, from the 1960s and, more intensely than in the 1970s, the process of demographic transition in the country was settled, mortality rates and fertility rates declined simultaneously, characterizing the phenomenon of demographic aging.¹⁻²

With the demographic transition process, it was noted that in 1991 the elderly population accounted for 4.8% of the Brazilian population, reaching 7.4% in 2010. It appears that the growth of the population in the last decade was due to the increase in the number of adult subjects, with also emphasis for seniors.³

Thus, the processes of demographic and epidemiological transition was succeeded, this last one should be identified by changes in the profiles of morbidity and mortality of the population, which is characterized by replacement of infectious and contagious diseases by the higher incidence of non-communicable chronic diseases (NCCDs) proper of adults and elderly and, often, expressed in the patterns of comorbidity, requiring a specific therapeutic and slow evolution and also influencing in damage and in the health status of carriers.⁴

According to these profiles, the previous paradigm in health was perpetuated in the cure or elimination of diseases. Today, it suffers alteration to the standard of compensation or without compensation, that is to say, the compensation directed to the rehabilitation and, when it is not compensated, the chronic pathologies direct for the dysfunction, dependence and falls. Indeed, leveraging the elderly population, due its increasing, for suffering from chronic diseases - compensated or not compensated.⁴ Thus, the term morbidity is understood like *"the behavior of diseases and health problems in an exposed population"*.^{5:23}

Demographic estimates on the causes of mortality assess that between the years 2000/2005, the NCCDs got expression, and the pathologies of the cardiac system reached the first place in the ranking with 36.9% in 2000 and 36.5% in 2005; followed by respiratory and neoplastic diseases, respectively, and that individuals aged 60 and over are the main population range affected.⁶

Other statistical data show that despite the reduction of chronic diseases in the elderly,

between 1998 and 2003, with respective rates of 78.7% and 75.5%, yet it is evident that 64.4% of seniors reported about comorbidities.⁶

In recent years, current data on chronic diseases report that they are responsible for 74% of deaths in Brazil. Of these, the most prevalent diseases are related to the cardiovascular system, with indices of 33%; followed by the neoplasms (16%), diseases of the respiratory system (6%) and diabetes (5%).⁷

From these indicators, it is observed that the involvement of NCCDs, single or multiple in the seniors, leads them to a clinical picture of loss of functionality, weaknesses and increase of the degree of dependence, making it imperative to implement preventive and controlling actions for the health status of this significant group of the Brazilian population.

The aging process has distinction between the alterations related to the actual stage of life and signs of the aging. The changes brought about with the natural aging are characteristics inherent to the senescence, that is to say, proper of the natural changes of people who reach the post-reproductive maturity, with accumulation of limitations and decrease of their ability to adapt themselves to the environment. In turn, the aging is included in a disease process along with indicators of aging and reduce the survival of the individual.⁸

Before the process of morbidity experienced by senescent, marked by the progressive increase of physical and mental functional dependence, it arises the need for health assistance by professionals, thus contextualizing the institutionalization of these individuals.

Furthermore, the significant increase of the institutionalized elderly is also a consequence of changed family patterns, which are characterized by family fragility and their possible life conditions, such as: low-income, the feminine need to enter in the labor market and widowhood.⁹

This reality implies the need of operationalizing health policies for the elderly, them being advocated or regulated by the government, demanding greater commitment and interest from managers for an effective deployment, and enabling more security and citizenship to the institutionalized seniors.

As for specific legislation of an institution of Long-Term Care for the Elderly (LTCE), in September 2005 came into force the resolution of executive board with number 283, whose purpose establishes minimum rules for its operation, with guidelines and

standards for the prevention and reduction of risks to the health of elderly residents, in addition to conceptualize it as a government residence or not, of a collective nature, designated for individuals with 60 years or older, with or without family support, giving them conditions of dignity, freedom and citizenship.¹⁰

From this regulation, it was possible to identify that these rest houses for elderly have functions in face of the society and the elderly, by maintaining the dignified life of those that their family members are no longer able to care them and also serve like a host for the elderly beings who are forsaken; when integrating these individuals in the environment and community. These spaces also have obligations before the perspective of healthy aging, more specifically related to the maintenance of health, identifying the degree of dependence and developing measures for rehabilitation, prevention and promotion.¹¹

Therefore, the establishment of these changes in the pattern of the current Brazilian population, in accompaniment to a global trend of aging, becomes relevant in the ambit of scientific researches.

As a result, this study is important for identifying the health profiles of institutionalized elderly, as well as providing an opportunity for approaching this reality of life in aging present in our current days.

Thus, from the understanding of the problem presented, we intend to answer the following questioning:

Is the health profile of institutionalized elderly accompanying the epidemiological indicators of the Brazilian elderly?

For this purpose, this study aims to analyze the morbidity of elderly residents in an institution for Long-Term Care for the Elderly.

METHOD

It is a descriptive and exploratory study, of the type of documentary analysis, with quantitative approach, performed in an institution of Long-Term Care for the Elderly/LTCE, historically important, for being the first official institution, of this nature, in the Brazilian state of *Rio Grande do Norte* (RN), Brazil. It is located in the city of *Natal* and is characterized as religious and philanthropic entity, postage IV, housing elderly with physical and mental dependence.

The population and study sample include 126 medical records of elderly residents who,

after the application of the inclusion and exclusion criteria, namely: elderly residents aged 60 years and over, excluding those who had no personal documentation (4 patients). So, the final sample included 122 medical records of elderly residents.

The dependent variables included in this study were: presence of morbidity, acute disease, chronic disease; presence of comorbidities and typology of comorbidities (cardiovascular disorders, neurological disorders, metabolic endocrine disorders, respiratory disorders and musculoskeletal disorders); as independent variables, we used: gender, age and time of hosting in the institution.

Our information collection was obtained by the technique of documentary analysis, directed to the field research. We used the front page of the medical records of elderly residents in the institution, organized and geographically separated by pavilions (collective physical sectors, in which the elderly remain in their daily intimacy) filed in the nursing room, in the sector of support to the health. In addition, we still used the report of the daily evolution of care. Data collection occurred in 15 visits to the field of research in the morning hour.

We developed a data journal, comprised of items related to the variables: identification number, sex, age, time of residence in the institution and morbidity, presented in an organized manner to facilitate information collection, which consisted in dividing the subjects according to the pavilions in which the seniors lived; which also corresponds to the general physical structure of that local.

The information was stored in a database and analyzed according to simple descriptive statistical analysis using the SPSS 15.0 software. The data were analyzed in the form of absolute and relative frequency, and they were presented in tables and interpreted from the literature.

The study had its research project previously assessed and approved by the Ethics Research Committee of the *Universidade Federal do Rio Grande do Norte* (CEP-UFRN), it was held respecting the ethical aspects recommended by the Resolution 196/96 which deals with studies involving human subjects.¹² It was registered under Protocol nº 105/2011 and CAAE nº 0247.0.051.000-10.

RESULTS

The results presented in this study

contributed to the identification of patterns of morbidity and health conditions of elderly residents in a LTCE, of philanthropic nature, with a total of 126 elderly residents.

From the analysis of 122 medical records of elderly residents in a LTCE, it was found that 62.3% of these are females, with a median age of 79 years old. The youngest person was aged 62 years and the oldest person aged 102 years.

With regard to the age group, 29.5% of the elderly have aged 85 years or over, of which 23.8% are females. The senior category of 60-

64 years old is entered in the lower rates, with 2.5% of representativeness.

As for the time of residence in the institution, it was found that 56% of seniors had between 1 to 5 years, but 15.6% of the institutionalized elderly live for 15 years or more (Table 1). It was also observed that 17.2% of those elderly aged 85 years or more represent those who are in the institution with 1-5 years of residence, followed respectively by 12.3% for the elderly in the age group between 65-69 years and with 1-5 years of institutionalization.

Table 1. Characterization of the resident elderly, according to the social and demographic data in a Long-Term Institution. Natal/RN, Brazil, 2011.

Social and demographic data	Specificities	n	%
Sex	Male	46	37,7
	Female	76	62,3
Age group (years)	60-64	3	2,5
	65-69	17	13,9
	70-74	19	15,6
	75-79	25	20,5
	80-84	22	18,0
	85 or over	36	29,5
Residence in the institution (years)	1-5	69	56,6
	6-10	24	19,7
	11-15	10	8,2
	over 15	19	15,6

It was found that 90.2% of seniors have at least one type of disease, and of these, 7.4% are acute diseases and 87.7% are chronic diseases. It should still be noticed that 4.9% of the elderly have both chronic and acute

diseases and, regarding the presence or absence of comorbidities, it is seen that 45.9% of seniors have comorbidities. Of these, 23% have two morbidities and 1.6% had five morbidities (Table 2).

Table 2. Morbidity presented in resident elderly, according to the medical records in a Lon-Term Institution. Natal/RN, Brazil, 2011.

Morbidities presented	Specificities	n	%
Presence of morbidity	Yes	110	90,2
	No	12	9,8
	chronic diseases	107	87,7
	acute diseases	9	7,4
	chronic and acute diseases	6	4,9
Presence of comorbidities	No comorbidities	66	54,1
	Two comorbidities	28	23,0
	Three comorbidities	22	18,0
	Four comorbidities	4	3,3
	Five comorbidities	2	1,6

According to the Table 3, as for the type of morbidity presented by the institutionalized elderly, we found a higher rate of 48.4% in

cardiovascular disorders; hypertension is the most prevalent disease, with 46.7%.

Table 3. Characterization of morbidities in the resident elderly regarding the type, according to the medical records in a Long-Term Institution. Natal/RN,

Brazil, 2011.

Type of Morbidities	Specificities	n	%
Only one cardiovascular disorder More than one cardiovascular disorder		59	48,4
		14	11,4
	Hypertension	57	46,7
	Stroke	4	3,3
Neurological disorders	Cardiopathy	12	9,8
		37	30,3
	Epilepsy	2	1,6
	Dementia	11	9,0
Only one metabolic endocrine disorder	Depression	3	2,5
	Psychosis	21	17,2
		24	19,7
	Diabetes	17	13,9
Only one musculoskeletal disorder More than one musculoskeletal disorder	Hypothyroidism	9	7,4
	Diabetes and Hypothyroidism	2	1,6
		17	13,9
		1	0,7
Respiratory disorder	Reumatism	2	1,6
	Spine problems	2	1,6
	Arthrosis	2	1,6
	Osteoporosis	12	9,8
Digestive disorder		3	2,4
	Asthma	1	0,8
	COPD	2	1,6
Neoplasms		1	0,8
	Gastritis	1	0,8
		6	4,9

Regarding the survey of morbidity recorded in the institutional charts, we also identified that 30.3% of the elderly have neurological disorders, of these, 17.2% have some psychosis and 9% have demonstrated dementia. As for the metabolic endocrine disorders, we obtained a frequency of 19.7%, with 13.9% by diabetes. And, in a lesser proportion, with 13.9%, 2.5% and 0.8% respectively, musculoskeletal, respiratory and digestive disorders were observed. And, finally, the neoplasms, which presented rates of 4.9% of the population in question.

DISCUSSION

The choice of study site was due to what that LTCE represents for the state of *Rio Grande do Norte* in historical terms, it was the first institution to be created with the purpose for which it is intended, as well as the number of resident elderly, providing a variety of peculiar features to this type of institution.

Among the achieved results, we found that the situation of feminization of old age permeates this population aforementioned due to their greater number and greater life expectancy, supporting the specialized literature. The representativeness of 62.3% of female gender in that institution of Long-Term Care for the Elderly is consistent with the highest percentage of this gender in others LTCEs , as well as other studies have shown.¹³⁻

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Regarding life expectancy of the elderly in this study, it should be noted that the largest age group is the elderly with 85 years or more, with 29.5% and, of those, 23.8% are elderly female. Regarding the Brazilian elderly population of females, the results are consistent with the current Brazilian demographic pattern.³

However, other results obtained from the cross-checking of the variables like *time of residence in the institution and age group* note that the elderly group of 85 years or more had the lowest time of residence in the institution.

It is understood that this fact is due, on the one hand to the increase in life expectancy, and, in other hand to the increasing number of older seniors living in LCTEs. This fact may also contribute to that older people with some degree of dependence and / or loss of functional capacity, common at this stage of aging, can require a more specialized care, which leads the family members to institutionalize their elderly relatives.

Some researchers reiterate that the admission of elderly people in the asylum context is caused by the lack of family allowance for financial reasons, poor health conditions and behavioral disorders.¹⁵

The high frequency of morbidity in institutionalized elderly in question - represented by around 90% of the population of the institution - consists in a critical health

episode and limitations for a healthy old age.

According to the indicators of morbidity recorded in the charts of the institution, 87.7% of the elderly have chronic diseases; this data is related to current demographic and epidemiological estimates in Brazil.

Congruent with the literature, in 2003 the Brazilian population had 29.9% of individuals with chronic disease and, in 2008, that rate was already represented by 31.3%.¹⁶⁻¹⁷

Moreover, the estimates reinforce that the increase of age is directly proportional to the onset of chronic diseases, because according to the data from Brazilian National Survey by Household Sample - *Pesquisa Nacional por Amostra de domicílio* (PNAD) (2008), the age group of 0-19 years presented 29.8 % of individuals as carriers of some selected chronic disease, while, among those over 65 years old, 79.1% are presented with more than one chronic disease.¹⁶⁻¹⁷

In the findings of a study conducted in a LTCF of the Brazilian State of *Rio Grande do Sul*, it should be noted that 83.9% of the elderly are affected by morbidities and 34.6% by multiple pathologies; 37.5% are indicators of cardiovascular disease and 13.9% of psychiatric disorders, results which corroborate the findings of this study.¹³

Despite the PNAD data confirm the incidence of chronic diseases, according to the cited author,¹⁴ it is observed that these illnesses decreased between the years 1998 e 2003, presenting a decrease of 78.7% to 75.5%. Nevertheless, the presence of comorbidities in Brazilian elderly is still very evident,¹⁶ such evidence also are presented in the reality of this study, with a result of 45.9% of the elderly with more than one chronic disease.

Regarding the profile of chronic morbidity, we found that the higher frequency is linked to the cardiovascular disorders and it is consistent with the epidemiological patterns of the country, according to the literature,^{6,18} with prevalence of 48.4% among the other systemic disorders.

Yet among the results of this study, other indicators of morbidity were: neurological disorders, with 30.3%, and metabolic endocrine disorders, with 19.7%, which confronts the results of other studies that present cardiovascular diseases in scale, followed by neoplasms, respiratory diseases and the endocrine metabolic disorders, those last ones are the main causes of death and hospital admissions.¹⁹⁻²⁰

Other indicators of morbidity among the elderly of this study are: hypertension, with indices of 46.7%, and diabetes, with 13.9%, indicating the relevance of these findings when they are related to the Brazilian epidemiological profile,^{14,20-21} or when they are compared to a cohort study with seniors in the city of *BambuÍ-RS*, Brazil, which shows a high prevalence of chronic diseases among the results, especially, with respect to prevalence of hypertension, with indices of 61.5%, and the mental disorders were in the third position, with 38.5%.²²

With reference to the neurological disorders, 30.3% of elderly residents at that LTCF have some mental disorder, and 9.0% account for the group that have dementia. Among these 9.0% of patients with dementia, we found that 4.1% are aged 85 years or older; the majority of them were comprised by women.

According to the literature, the prevalence of dementia in the elderly after 60 years is doubled and primarily affects the females, reaching up to 30% of individuals older than 85 years old.²³⁻⁴

The increase in life expectancy, in the midst of these virtues, throws challenges to the mankind, especially when the focus is the mental health of the elderly. Data revealed in the specialized literature affirm that countries of low and middle income, such as the case of Brazil, will suffer from the high demand of demented elderly over the next decades, justifying the need for increasing the number of researches in the area of mental health.²⁵

By comparing results of studies conducted in the Brazilian state of *Ceará*, we observed a similarity between the patterns of dementia and the results of data obtained by means of this study; it should be verified that 8.4% of the elderly were demented, yet a difference between the times of years lived was showed, because elderly with greater age gave higher percentage of dementia, with 9.3%, for the older group, and 7.5%, for the younger group.²⁶

Scholars of this thematic argue that demented elderly have a higher risk of institutionalization due to the progressive syndrome clinical picture, leading them to a high degree of physical and mental dependence, requiring a specialized care, since many of them have a little frequency of family care or none.²⁷

These statements are consistent with the findings of this study, as it should be noted

that seniors with neurological disorders have a range of permanence in the institution between 1-5 years, with a higher frequency of 16.4%, and the demented consistent with the same range of permanence reached a rate of 5.7%.

As for limitation of this study, the most relevant is the possibility of underreporting of morbidity among the institutionalized elderly. Perhaps it happened due to the lack of structural technological resources, because the records are written and filed without being computerized. This fact hampers the flow of data collection and contributes to the failure of great part of the information on the elderly in these medical records; consequently such kinds of studies are complicated.

It is observed that the easier diseases to control and that require a low-tech treatment, such as hypertension and diabetes, appear more prevalent among the elderly people.

Moreover, the problems with the protocols of examination scheduling, the waiting list in the Brazilian Unified Health System, as well as the mobilization process for that the access of the elderly to the health sector, really be done, are the difficulties presented by the institution.

CONCLUSION

At the end of this study, it was possible to understand the importance that should be given to the health of elderly residents in an institution for Long-Term Care of the Elderly (LTCE). The characterization of the morbidity of the resident elderly showed that the profile of morbidity recorded in the medical charts is conformed to the Brazilian morbidity clinical picture.

The presence of the NCCDs also followed the same epidemiological trend present in other elderly people who experience the phase of aging; in some cases, these illnesses decrease the functionality of the elderly people and install in their body the onset of fragility, sometimes, acting like a cumulative process, bringing the multiplicities of diseases.

Among the achieved results that stood out, we should cite the process of feminization of old age, the high indicators of morbidity in the elderly, in some cases, it is difficult to follow due to the cumulative and irreversible process of deterioration of the aged body, which hinders a regulation against the effects of aggressors in order to maintain the homeostasis and controlling the high expression of chronic diseases.

The LTCEs, in its complexity as a place of care and in the extent of its problems, present themselves to the public services as a critical issue of health and a challenge for the modern world, since these residential environments have a growing population of elderly, requiring an integrated and individualized care.

These results serve to sensitize government agencies, managers and entire society on the need of implementation of new health strategies, which include the LTCEs as possibilities of health care in their institutional policies. Therefore, the State has an obligation to welcome these individuals, giving maintenance conditions in terms of health care and life quality to these institutions.

Based on the Statute of the Elderly, it is recommended more involvement and responsibility from society with this age group, both the institutionalized elderly and those who live with their families, which must focus on the elderly person in its health condition, with training for caregivers and health professionals and also mentioning clarifications about the rights of the elderly, such as education policy.

It is hoped that this study can contribute to the researches which involve institutionalized elderly, giving subsidies to the improvement of knowledge and guidance on professional practices, as well as helping in planning in environments of institutionalization.

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Sources of funding: No
Conflict of interest: No
Date of first submission: 2012/02/09
Last received: 2012/09/26
Accepted: 2012/09/27
Publishing: 2012/11/01

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