

Sociodemographic characteristics and morbidities among institutionalized elderly without cognitive decline

Características sociodemográficas e morbidades entre idosos institucionalizados sem declínio cognitivo

Características sociodemográficas y morbilidad entre los ancianos sin deterioro cognitivo

Samara Karine Sena Fernandes Vieira¹, Eucário Leite Monteiro Alves², Márcia Astrês Fernandes³, Maria do Carmo de Carvalho e Martins⁴, Eliana Campêlo Lago⁵

How to quote this article:

Vieira SKSF, Alves ELM, Fernandes MA, Martins MCC, Lago EC. Sociodemographic characteristics and morbidities among institutionalized elderly without cognitive decline. Rev Fun Care Online. 2017 out/dez; 9(4):1132-1138. DOI: <http://dx.doi.org/10.9789/2175-5361.2017.v9i4.1132-1138>

ABSTRACT

Objective: To describe the sociodemographic and clinical characteristics of elderly people without cognitive decline in long-stay institutions. **Method:** It is a descriptive, observational and cross-sectional study with a quantitative approach, carried out in Teresina (IP) with 79 institutionalized elderly individuals that meet the inclusion criteria. Mini-Mental State Examination was applied, as well as a form to investigate sociodemographic and clinical aspects in elderly people without cognitive decline. Data were analyzed using SPSS 18.0 and Chi-square test. **Results:** There was a predominance of elderly people without cognitive decline in men (55.7%), single (63.29%), aged ≥ 75 years (54.43%) with systemic hypertension (64.56%) and use of drugs that act on the cardiovascular system (64.56%). **Conclusion:** It is necessary that the institutionalized elderly without cognitive impairment are continuously evaluated for early diagnosis of pathological cognitive aging to prevent dementia states.

Descriptors: Cognition; Dementia; Aging.

RESUMO

Objetivo: Descrever as características sociodemográficas e clínicas de idosos sem declínio cognitivo de instituições de longa permanência.

Métodos: Foi aplicado o Mini-Exame do Estado Mental (MEEM) e um formulário para investigar aspectos sociodemográficos e clínicos

¹ Physiotherapist. Master in Health of the family by the University Center UNINOVAFAPI. Professor at Faculdade Estácio de Teresina / PI. Teresina, Piauí, Brazil. Email: samarakarinecs@yahoo.com.br

² Doctor. PhD of Medicine (Thoracic and Cardiovascular Surgery) from the University of São Paulo. Professor of the master's degree in family health at UNINOVAFAPI University Center. Teresina, Piauí, Brazil. Email: ealves@uninovafapi.edu.br

³ Nurse. PhD in Sciences from the University of São Paulo. Associate Professor at the Federal University of Piauí. Teresina, Piauí, Brazil. E-mail: m.astres@ufpi.edu.br

⁴ PhD in Biological Sciences (Pharmacology, Physiology and Medicinal Chemistry) by the Federal University of Pernambuco. Associate Professor, Department of Biophysics and Physiology, Federal University of Piauí. Teresina, Piauí, Brazil. E-mail: mcmartins@uninovafapi.edu.br

⁵ PhD in Biotechnology - UFPI. Professor at UNINOVAFAPI University Center. Teresina, Piauí, Brazil. E-mail: eliana@uninovafapi.edu.br

nos idosos sem declínio cognitivo. Os dados foram analisados por meio do SPSS 18.0 e do teste qui-quadrado. **Resultados:** Houve predomínio de idosos sem declínio cognitivo do sexo masculino (55,7%), solteiros (63,29%), com faixa etária ≥ 75 anos (54,43%), com hipertensão arterial sistêmica (64,56%) e com uso de medicamentos que atuam no sistema cardiovascular (64,56%). **Conclusão:** É necessário que os idosos institucionalizados sem déficit cognitivo sejam avaliados continuamente para diagnóstico precoce do envelhecimento cognitivo patológico para prevenção de estados demenciais.

Descritores: Cognição, Demência, Envelhecimento.

RESUMEN

Objetivo: Describir las características sociodemográficas y clínicas de las personas mayores sin deterioro cognitivo en instituciones de larga estadia.

Métodos: Mini-examen se aplicó Estado Mental y una forma de investigar aspectos sociodemográficos y clínicos en personas mayores sin deterioro cognitivo. Los datos fueron analizados con el programa SPSS 18.0 y la prueba de Chi-cuadrado. **Resultados:** Hubo un predominio de personas mayores sin deterioro cognitivo en los hombres (55,7%), solo (63,29%), con edades ≥ 75 años (54,43%) con hipertensión sistémica (64,56%) y el uso de fármacos que actúan sobre el sistema cardiovascular (64,56%).

Conclusión: Es necesario que el anciano institucionalizado y sin deterioro cognitivo son evaluados de forma continua para el diagnóstico precoz de envejecimiento cognitivo patológico para evitar estados de demencia.

Descritores: Cognición, Demencia, Envejecimiento.

INTRODUCTION

The aging of the world's population is one of the major impact phenomena of the 21st century that results from a gradual process of demographic transition, posing a challenge for the health sector and other social spheres. World growth of the number of people aged 60 and over is notorious in absolute and relative numbers.¹

According to data from the Brazilian Institute of Geography and Statistics (IBGE), as of the 2010 census, the population of individuals aged 60 years or more corresponds to 10.9% of the current 190,732,694 inhabitants. According to statistical estimates, by the year 2025, it will represent the sixth largest elderly population in the world in absolute numbers, with more than 32 million elderly, which will correspond to 15% of the population.²

Population aging was accompanied by a transformation of the morbidity and mortality profile, described by an increase in the prevalence of non-transmissible chronic degenerative diseases.³ Elderly individuals who present comorbidities with motor and sensory impairment suffer from changes in cognitive performance and memory decline that are further aggravated if associated with genetic and environmental factors.⁴

The change of environment caused by institutionalization is one of the situations that trigger depression in the elderly, which is a risk factor for cognitive deficit and dementia. This social isolation generates loneliness, loss of identity and freedom and devaluation of one's own life.⁵

Cognitive alterations can be investigated through several validated protocols, including the Mini-Mental State Examination (MMSE), which is easily and quickly applied. This examination is highly reliable and consists of

seven categories: orientation to time, orientation to place, three-word registration, attention and calculation, recall of the three words, language and visual constructive praxis - each of them with the purpose to evaluate specific cognitive functions.⁶⁻⁷

One of the most relevant dimensions of elderly cognition concerns the understanding of the effects of its own insertion in the institutional context. Thus, this article aims to describe the sociodemographic and clinical characteristics of the elderly without cognitive decline of Long-Stay Institutions of Teresina, Piauí, Brazil.

METHOD

This is a descriptive, observational and cross-sectional study with a quantitative approach. The population was composed of institutionalized elderly people living in four Long-Stay Institutions for the Elderly (LSIEs) of Teresina-PI, which, in November 2015, totalled 185 elderly people. The sample resulted in 79 institutionalized elderly individuals who met the inclusion criteria.

The elderly were included in the LSIEs of Teresina and did not present cognitive deficit in the MMSE with scores equal or superior to 13 points, in illiterate elderly; equal or superior to 18 points, in the elderly with up to 08 years of study; and equal to or greater than 26 points, in the elderly with more than 08 years of study. And the elderly who lived in the LSIEs of Teresina for less than one month were excluded, as well as the hospitalized elderly.

Considering that the level of schooling is a factor that influences performance in the MMSE, individuals with a score of 13 or 18 or higher are classified as having high cognitive performance according to their level of education (illiterate, with up to 8 years of study, or above 8 years of study, respectively).⁸

Initially, the MMSE was applied to evaluate the cognitive functions of the institutionalized elderly, then the elderly signed the Term of Free and Informed Consent (TFIC), through clarification and acceptance of the proposal.

And finally, a form was applied to the elderly without cognitive deficit. The purpose of this instrument was to obtain the following information: age, sex, schooling, monthly income, marital status, institutionalization time, present illnesses, medications in use, and the locomotion of the elderly.

Data were processed through the Statistical Package for the Social Sciences program - SPSS 18.0 and later analyzed through descriptive statistics. To relate the variables presented in the objectives of this research, the Chi-Square test (χ^2) was used, with statistical significance when p-value is less than or equal to 0.05.

In this research, the ethical principles of research involving human beings were respected through Resolution 466/2012 of the National Health Council (NHC), and was submitted to the Research Ethics Committee of UNINOVAFAPÍ University Center and approved under CAAE 47527915.5.0000.5210.

RESULTS AND DISCUSSION

The sample of this study, composed of 79 institutionalized elderly, obtained scores in the MMSE that determined the absence of cognitive decline according to the educational level. Table 1 shows the performance of the elderly in the MMSE, taking into consideration the schooling, in full years.

Table 1 - Mean of MMSE * and distribution of the elderly without cognitive decline according to schooling. Teresina-PI, Brazil, 2015.

Variable	MMSE Performance		
	Average	N ^o	%
Education (years of schooling)			
Illiterate	17	31	39.24
With up to 8 years	22	48	60.76
More than 8 years	-	-	-

* Mini-Mental State Examination

The sociodemographic aspects of the studied sample are described in Table 2. The elderly without the decline of cognition were in the majority male (55.7%), with age group of 70 years or more (82.28%), with up to eight years of study (60.76%), single (63.29%) and individual monthly income of up to one minimum wage (92.41%).

Table 2 - Sociodemographic aspects of the institutionalized elderly without cognitive decline. Teresina-PI, Brazil, 2015.

Variables	N ^o	%	
Gender	male	44	55.70
	female	35	44.30
	Total	79	100.00
Age group (years)	60 to 69	14	17.72
	70 or +	65	82.28
	Total	79	100.00
Education	illiterate	31	39.24
	With up to 8 years	48	60.76
	More than 8 years	-	-
	Total	79	100.00
Marital Status	Divorced(a)	13	16.46
	Single(a)	50	63.29
	Married(a)	6	7.59
	Widow(a)	10	12.66
	Total	79	100.00
Individual monthly income (MW*)	No income	4	5.06
	≤ 1	73	92.41
	More than 1	2	2.53
	Total	79	100.00

* Minimum Wage = R\$ 880.00 (February/2016, Brazil)

As for the time of institutionalization of the elderly without cognitive decline of LSIEs, it was verified that almost two-thirds of the elderly had less than 5 years of institutionalization, that is, 43.04% of the elderly had 1 to 4 years of institutionalization. The remainder lived in institutions between 5 and 10 years (22.78%), less than 1 year (18.99%), more than 15 years (13.92%) and only 1.26% between 11 and 15 years.

The diseases present in the institutionalized elderly with no decline in cognitive status were: Systemic Arterial Hypertension (SAH), psychiatric illnesses (depression, anxiety, psychoses and insomnia), diabetes mellitus and dyslipidemias. Among the other existing diseases were: inguinal and hiatal hernia, Parkinson's disease, prostate diseases, labyrinthitis, hemorrhoids, alopecia, circulatory disorders, respiratory and gastrointestinal problems, Alzheimer's disease, anemia, amputations, sequelae of childhood paralysis, eye problems and auditory and verminoses (Table 3).

Table 3 - Distribution of the diseases present in the institutionalized elderly without a decline in cognitive status according to gender. Teresina-PI, 2015

Variable	Gender			
	Male		Female	
	N ^o	%	N ^o	%
SAH [†]	27	61.36	24	68.57
Dyslipidemia	4	9.09	11	31.43
Diabetes mellitus	8	18.18	10	28.57
Heart disease	4	9.09	5	14.29
Trauma, rheumatism and osteoporosis	7	15.91	3	8.57
Stroke [‡]	3	6.82	2	5.71
Depression, anxiety, psychosis, insomnia	25	56.82	22	62.86
none	3	6.82	2	5.71
others	20	45.45	15	42.86

* Each elderly person may present more than one type of illness † Systemic Arterial Hypertension ‡ Stroke

There was no statistically significant relationship between the presence of diseases and the gender of the elderly (Chi-square = 9.86 and P = 0.362), that is, statistically, the diseases affect the elderly in an equivalent way, regardless of gender.

Diseases such as systemic arterial hypertension, heart disease, depression, anxiety, psychoses, and insomnia all affected the age group 70 years and older. Nevertheless, as can be seen in table 4, there was no significant statistical association between the present disease variables and the age group of the institutionalized elderly without a decline in cognitive status (Chi-square = 8.20 and P = 0.514).

Table 4 - Distribution of the diseases present in the institutionalized elderly without a decline in cognitive status according to the age group (years). Teresina-PI, 2015

Variable	Age group (years)					
	60 to 69		70 or +		Total	
	Nº	%	Nº	%	Nº	%*
SAH [†]	7	50.00	44	67.69	51	64.56
Dyslipidemia	2	14.29	13	20.00	15	18.99
Diabetes mellitus	3	21.43	15	23.08	18	22.78
Heart disease	1	7.14	8	12.31	9	11.39
Trauma, rheumatism and osteoporosis	3	21.43	7	10.77	10	12.66
Stroke [‡]	1	7.14	4	6.15	5	6.33
Depression, anxiety, psychosis, insomnia	11	78.57	36	55.38	47	59.49
none	-	-	5	7.69	5	6.33
others	8	57.14	27	41.54	35	44.30

* Each elderly person may present more than one type of illness † Systemic Arterial Hypertension ‡ Stroke

There was no statistically significant association between the medications used and the gender of the institutionalized elderly with high performance of the cognitive state (Chi-square = 15.04 and P = 0.131). The most used drugs were those that work in the cardiovascular system and the central nervous system and in the digestive system and metabolism. Other medications included: vitamins and nutritional supplement, antiparasitic, anti-vertigo, antineoplastic, anti-hemorrhoidal, lubricating ophthalmic solution and herbal medicines (Table 5).

Table 5 - Classes of drugs, by anatomical grouping, prescribed to the institutionalized elderly without any decline in cognitive status according to gender. Teresina, PI, Brazil, 2015

Classes of medicines	Gender					
	Male		Female		Total	
	Nº	%	Nº	%	Nº	%*
Cardiovascular system	26	59.09	25	71.43	51	64.56
Central nervous system	28	63.64	22	62.86	50	63.29
Digestive system and metabolism	18	40.91	21	60.00	39	49.37
Systemic use	15	34.09	13	37.14	28	35.44
Hematopoietic system	2	4.55	2	5.71	4	5.06
Respiratory system	1	2.27	1	2.86	2	2.53
Others	12	27.27	9	25.71	21	26.58
None	4	9.09	2	5.71	6	7.59

* Each elderly person may use more than one class of medication

The drugs that act in the cardiovascular system, prescribed to the elderly in this study, were antihypertensive, cardiostimulant, antianginal, antiarrhythmic and diuretics.

The prescribed drugs that act on the central nervous system were the hypnotics, anxiolytics, antidepressants, antimanics, vasodilators, anticonvulsants, antipsychotics and antiparkinsonians.

The medications used by the elderly of this research that act in the digestive system and metabolism were: insulin and other antidiabetic, anti-secretory, antacid, antiemetic, lipid-lowering, antivertiginous, gastrokinetic and anti-osteoporosis agents. The medications that act in the hematopoietic system were the antianemics; those acting on the respiratory system were bronchodilators and mucolytics/fluidifiers; and the drugs of systemic uses were: anti-inflammatory steroids and non-steroids, analgesics, antibiotics and antiallergics.

As to the locomotion situation of the elderly, it was observed that the majority of the elderly without the decline of cognition wandered without aid or with the aid of walkers, crutches or flares (69.62%). The remaining wheelchair users (29.11%) and the bedridden ones (1.27%) presented sequelae of stroke and child paralysis, amputations and traumatic-orthopedic and rheumatic problems.

The majority of non-declining cognitive status elderly residing in the Teresina-PI LSIEs were males, although the number of women in LSIEs was greater than the number of males. This data is justified by the higher life expectancy of females in Brazil and because they represent a large part of the elderly population. In addition, elderly women are more likely to be widowed and poor socioeconomic situations.⁹

Elderly women live longer, have a higher chance of acquiring illnesses and disabilities, and are even more likely to have cognitive impairments than men.³ The risk of developing cognitive decline has been associated with low schooling, advanced age, female gender, physical disability, comorbidities, poor social contact, smoking, and sedentary lifestyle. Depression is also a risk factor, which may precede the development of dementia or coexist with the disease.¹⁰

In a study with elderly people from an institution in Minas Gerais, there was a predominance of elderly women (77.4%). And regarding the educational level, 48.4% were illiterate and 41.9% were semi-illiterate.⁷ The low educational level of the institutionalized elderly is a foreseen circumstance, because a few decades ago the chances of studying were reduced and there were obstacles to having education, especially for women.¹¹

The elderly surveyed in this study had, mostly, less than eight years of schooling, mainly due to a lack of financial resources to pay for their schooling since almost all are from poor families and began to work to help the family expenses very early, leaving the studies in the background or even out of future plans and prospects.

The diminished level of schooling in institutionalized elderly people is a portrait of a legacy of past decades, in which manual labor for men and domestic labor for women were prioritized over intellectual training.⁹

In the current study, a large proportion of the elderly receive only a minimum wage of individual monthly income, imposing difficulties in defraying their own expenses. These data are similar to those presented in a survey of 31 elderly people from a LSIE in a municipality of Minas Gerais, where

they found that the monthly income of the majority of the elderly was only a minimum wage.⁷

In order for the elderly to take care of themselves, since the income received by these individuals is insufficient to cover all their monthly expenses, it is important to have preventive and therapeutic programs for the diseases.¹²

The individual monthly income of the majority of the elderly in this research was up to a minimum wage, which causes great concern in the elderly for perceiving that this is insufficient for their livelihood. Moreover, most of them do not directly receive their pensions, which are administered by the institution responsible for their shelter.

The main sources of income of this population group are pensions and retirement, which only reach up to 2.5 minimum wages for most of them, creating an unequal and improper socioeconomic situation.⁷

The present research agrees with a study that shows that the majority of the elderly of an institution of Belo Horizonte/MG were unmarried (46.8%).³ This is corroborated by another study carried out in a LSIE, in which 62 elderly people participated and obtained a mean age of 81.85 ± 8.82 years, since in the current study the elderly presented age equal to 70 years or more.⁹

Population projections point to an exacerbated growth of the very old population (80 years or more) in the coming decades. It is estimated that in 2040, the very elderly will account for a quarter of the elderly population, and about 7.0% of the total population, representing a contingent of 13.7 million elderly people.¹³

This research presents similar data to the study carried out in four LSIEs in Goiânia/GO in the year 2008, since the time of institutionalization of the majority of the elderly was between 1 and 5 years (51%). Institutionalization process can generate progressive functional independence of the elderly since it is a complex event of changes for the elderly that happens to reside outside their family environment until the rest of their days of life.¹⁵

In the current study, almost two-thirds of the elderly live in shelters less than five years old, and most of them are not suited to the institutional environment. On the other hand, the elderly with more than ten years of institutionalization are more acclimated and accustomed to the routine of the shelters, showing evidence of confidence and security.

The epidemiological profile of the sample of this study has already been exposed in another research that indicated the cardiovascular, neurological, psychiatric and orthopedic diseases as the most common in this age group.¹⁶

Systemic arterial hypertension is a public health problem because it increases cardiovascular risks, and its prevalence among the elderly ranges from 52% to 63%. The elderly are very different from the young, since they have, on average, three to five associated chronic diseases, and only 6% do not present diseases.¹⁷

The following diseases: systemic arterial hypertension (76.6%), diseases of the nervous system (54.6%), joint problems (16.3%), diabetes mellitus (16.2%), respiratory problems (13.0%), heart failure (12.3%), and gastrointestinal problems (11.7%).¹⁶

Currently, there is an increase in people with chronic diseases and multiple disease association. Hypertension, heart disease and diabetes predominate among individuals aged 60 years or older, and 64.4% of Brazilian adults have more than one pathology.¹⁸

In the present research, the elderly are afflicted by several associated diseases that are accompanied by health professionals: nursing technicians, nurses, physiotherapists, nutritionists and physicians. The four institutions studied are concerned with the administration of prescribed medications, medical care, as well as physiotherapy for the rehabilitation of sequelae.

In recent years, the diseases of the elderly have gained importance, mainly psychiatric diseases, especially depression, which affects a large part of the elderly.¹⁹ It is estimated that 15% of the elderly present some depressive symptom, and that depression is common in hospitalized elderly (5 to 13%) and institutionalized (12 to 16%).²⁰

Institutionalization can generate, for the elderly, loss of contact with their families and cause social isolation, which leads to loneliness, depression, discouragement, disbelief and psychic disorders.¹⁶

Although the present study did not detect a statistically significant relationship between the present illnesses and the gender of the elderly, in a study carried out in five institutions for the elderly in the Federal District in relation to gender, there was a predominance of depression symptoms among women ($p = 0.018$), a fact that agrees with data from the literature, which indicate that women are more likely to develop depression during old age.²¹

Women are more affected by depression because they live longer than men, which leads to chronic illness,²⁰ and by environmental and socio-cultural factors, in which they generate situations that impair women's mental health, such as violence against women and financial dependence.²¹

Institutionalization is a frustrating and depressing condition.³ A survey carried out in Portugal with 75 elderly, institutionalized and non-institutionalized in the year 2011, showed a predominance of depression symptoms in the female sex and in those who lived in institutions, because they were distant from their homes and submitted to new routines.²¹

Most of the elderly studied in this study presented depression associated with other diseases. It can be seen that illness, independent of the disease, linked to institutionalization generates feelings of sadness and fear, which are accentuated when the elderly still present a decrease in their functional capacity and those limit their independence to carry out daily activities.

Chronic diseases, such as diabetes, systemic arterial hypertension and heart disease, are understood as belonging to the elderly and more frequent in the elderly of 80 years or more, favoring obstacles in activities of daily living, hindering the independence and autonomy of the elderly.²²

Stroke increases its incidence rapidly with advancing age in the 80-90 age group. The increase in the life expectancy of the elderly population causes an increase in

the occurrence of chronic diseases and loss of functional independence and autonomy.¹²

Heart failure is another example of a chronic illness that mainly affects the elderly, progressively increasing, according to the age group.²³ Age is considered an important aspect among the elderly because it increases the risk of illness and a greater degree of dependence, which intensifies as the individual increases his age.¹²

A study carried out in an institution in the municipality of Jequié-BA in the year 2007 verified dementia in the elderly of 65 years (0.5%) and progression of these scenarios affecting approximately 40% of the elderly with more than 85 years.¹²

The categories of drugs most consumed in the present study were similar to those found in the literature. The drugs for the cardiovascular system represented the group most commonly used, which is justified by the predominance of cardiovascular diseases among the elderly.²⁴

The results of the study carried out in the elderly of an institution in Rio Grande do Sul in the year of 2011 agree with those of the present research since it also found that the drugs most used by the institutionalized elderly were those that act in the cardiovascular system (35.0%), also followed by drugs with action in the central nervous system (17.5%).¹³

The increase in the continuous use of drugs in the elderly population can be explained by the increase in the prevalence of chronic diseases in this age group, as well as by the fact that drug therapy is the main intervention.²⁴ The association of drugs is widely used for several diseases in the elderly and these combinations generate harmful effects to the organism, causing hospitalization and death.¹³

However, polypharmacy is important and necessary in many cases, since many elderly people present multiple illnesses and symptoms, requiring the use of several medications and safe and reliable medical prescriptions to guarantee the quality of life of the elderly.²⁴

A survey of elderly people from the Centers of Reference and Citizenship of João Pessoa/PB in 2007 verified that medication use was high, with elderly people using three or more medications simultaneously. This study also emphasizes that the elderly use more medications than individuals from another age group. Therefore, they are prone to adverse effects, including drug-food interactions.²⁵

It is important to investigate the drug therapy against the physiological changes that are characteristic of the aging process, such as the reduction of baroreceptor activity, changes in body composition, basal metabolism, hepatic blood flow and glomerular filtration rate, with altered absorption, distribution and metabolism of medicinal products.¹⁷

Benzodiazepines have a long half-life in the elderly and lead to prolonged sedation, with risk of falls and fractures. Antidepressants generate anticholinergic effects (difficult breathing, blurred vision, increased heart rate, decreased blood pressure), orthostatic hypotension and stimulation of the central nervous system.²⁴ Medications that act on the central nervous system, such as anxiolytics, antidepressants and antipsychotics, can also cause memory impairment, confusion and social isolation.¹³

In the current research, the great amount of medications used by the elderly due to the association of present diseases is well-known. And it is important to emphasize the variety and amount of drugs used that act on the central nervous system associated with other classes of medications.

In the study carried out with elderly patients of a LSIE in Belo Horizonte / MG, 61.7% used a gait aid device, 42.5% used the walker, 12.8% used the wheelchair, and 6.4% the cane.³ And a study with 62 elderly people from a Salvador / BA institution in the year 2014, found that 22 were wheelchair users with activities of greater functional dependence, transfers and ambulation (90.1%).⁹

These findings depend on the prescriptions of orthotics by professionals of LSIEs who, according to the functional need of the elderly, indicate a certain device (chairs, crutches, canes and walking sticks) to promote the functional independence of the elderly who were previously unable to perform.³ However, the presence of a considerable number of elderly wheelchair users can contribute to a high level of functional dependence of this population.⁹

Elderly people with independent locomotion have a lower prevalence of neuropsychiatric disorders when compared to wheelchair dependent elderly. The adoption of non-pharmacological measures capable of maintaining the locomotor apparatus can reduce the negative effects of the independent walking restriction and the progressive declines, characteristic of dementia diseases.²⁶

The institutionalization of the elderly tends to grow with the aging population, mainly because of the intensive care needed for this part of the population that present chronic diseases that are linked to a degenerative process of the cognitive state. The results obtained in the present study demonstrate the extreme need for planning actions within public health policies aimed at prevention and treatment, especially dementias that are progressive in old age.

This research also detected that the elderly without the decline of the cognitive state present several associated diseases and use several types of medicines, including the use of a lot of those that act on the central nervous system. Therefore, these data further reinforce the importance of early and immediate interventions on the mental health of the elderly of the Teresina-PI LSIEs, preventing diseases that may increasingly compromise quality of life in the elderly.

CONCLUSION

In the present study, it was observed that in the group studied, there was a predominance of male elderly, aged 75 years and over, less than eight years of age, single, with monthly income of up to one minimum wage and with institutionalization time from one to four years.

The elderly also presented systemic arterial hypertension and psychiatric diseases as the most common diseases, and they made more use of drugs that act in the cardiovascular system and central nervous system. It was also verified that a great part of the institutionalized elderly people move without or with assistance, being small the part of bedridden elderly people.

In view of the results found, it is concluded that the elderly without cognitive decline need expressive care as well as the elderly with a decline in cognition. The absence of cognitive deficit does not rule out that cognitive alterations and dementia states can affect institutionalized elderly since institutionalization itself is a risk factor for cognitive deficit and dementia.

It is hoped that this study will contribute to scientific advances on the mental health of the elderly, especially those sheltered through public health policies aimed mainly at multidisciplinary programs to prevent the aggravation of the cognitive state of the elderly, since aging with quality of life also requires assessing and anticipating risk factors for the reduction of cognition, as well as to diagnose as soon as possible the deviations that lead to pathological cognitive aging.

REFERENCES

1. Tannure MC, Alves M, Sena RR, Chianca TCM. Perfil epidemiológico da população idosa de Belo Horizonte, MG, Brasil. *Rev Bras Enferm* 2010;6(5):817-22.
2. Correia TMP, Leal MCC, Marques APO, Salgado RAG, Melo HMA. Perfil dos idosos em situação de violência atendidos em serviço de emergência em Recife-PE. *Rev Bras Gerontol* 2012;15(3):529-536.
3. Alencar MA, Bruck NNS, Pereira BC, Câmara TMM, Almeida RS. Perfil dos idosos residentes em uma instituição de longa permanência. *Rev Bras Geriatr. Gerontol* 2012;15(4):785-796.
4. Souza VL, Borges MF, Vitória CMS, Chiappetta ALML. Perfil das habilidades cognitivas no envelhecimento normal. *Rev CEFAC* 2008;12(2):186-192.
5. Zimmermann IMM, Leal MCC, Zimmermann RD, Marques APO, Gomes ECCG. Fatores associados ao comprometimento cognitivo em idosos institucionalizados: revisão integrativa. *Rev Enferm UFPE Online* 2015;9(12):1320-8.
6. Bertoldi JT, Batista AC, Ruzanowsky S. Declínio cognitivo em idosos institucionalizados: revisão de literatura. *Cinergis* 2015;16(2):152-156.
7. Silva ME, Cristianismo RS, Dutra LR, Dutra IR. Perfil epidemiológico, sociodemográfico e clínico de idosos institucionalizados. *Rev Enferm Cent O Min* 2013;3(1):569-576.
8. Lira M, Santos LCCS. Correlação entre função cognitiva e capacidade funcional nos indivíduos com doença de Alzheimer. *Cadernos de Pós-Graduação em Distúrbios do Desenvolvimento* 2012;12(2):36-45.
9. Almeida RLS, Reis HCR, Santos KOB, Ferraz DD. Instituição de Longa Permanência para Idosos: avaliação das condições de acessibilidade e da funcionalidade dos idosos. *Rev Saúde Com* 2015;11(2):162-173.
10. Rabelo DF. Comprometimento cognitivo leve em idosos: avaliação, fatores associados e possibilidades de intervenção. *Rev Kairós Gerontologia* 2009;12(2):65-79.
11. Valcarenghi RV, Santos SSC, Barlem ELD, Pelzer MT, Gomes GC, Lange C. Alterações na funcionalidade/cognição e depressão em idosos institucionalizados que sofreram quedas. *Acta Paul Enferm* 2011;24(6):828-33.
12. Reis LA, Torres GV, Araújo CC, Reis LA, Novaes LKN. Rastreamento cognitivo de idosos institucionalizados no município de Jequié-Ba. *Psicologia em Estudo* 2009;14(2):295-301.
13. Gautério DP, Santos SSC, Pelzer MT, Barros EJ, Baumgarten L. Caracterização dos idosos usuários de medicação residentes em instituição de longa permanência. *Rev Esc Enferm USP* 2012;46(6):1394-9.
14. Barbosa AM, Oliveira CL. Prevalência de quedas, fatores de risco e nível de atividade física em idosos institucionalizados. *RBCEH* 2012;9(1):57-70.
15. Pereira FM, Besse M. Fatores associados à independência funcional de idosos residentes em instituição de longa permanência. *Acta Fisiatr* 2011;18(2):66-70.
16. Oliveira MPF, Novaes MRCG. Perfil socioeconômico, epidemiológico e farmacoterapêutico de idosos institucionalizados de Brasília, Brasil. *Ciência & Saúde Coletiva* 2013;18(4):1069-1078.
17. Longo MAT, Martelli A, Zimmermann A. Hipertensão arterial sistêmica: aspectos clínicos e análise farmacológica no tratamento dos pacientes de um setor de psicogeriatría do Instituto Bairral de Psiquiatria, no município de Itapira, SP. *Rev Bras Geriatr Gerontol* 2011;14(2):271-284.
18. Instituto Brasileiro de Geografia e Estatística. Síntese de indicadores sociais: uma análise das condições de vida. Rio de Janeiro: IBGE, 2010 [acesso em: 11 nov. 2015]. Disponível em: http://www.ibge.gov.br/home/estatistica/populacao/condicaoodevida/indicadoresminimos/sinteseindicadores2010/SIS_2010.pdf
19. Silva ER, Sousa ARP, Ferreira LB, Peixoto HM. Prevalência e fatores associados à depressão entre idosos institucionalizados: subsídio ao cuidado de enfermagem. *Rev Esc Enferm USP* 2012;46(6):1387-93.
20. Frade J, Barbosa P, Cardoso S, Nunes C. Depressão no idoso: sintomas em indivíduos institucionalizados e não-institucionalizados. *Rev Enferm Referência* 2015;4(4):41-49.
21. Lima CLJ, Costa MML, Ferreira JDL, Silva MA, Ribeiro JKS, Soares MJGO. Perfil sociodemográfico e clínico de idosos institucionalizados. *Rev Enferm UFPE Online* 2013;7(10):6027-34.
22. Pilger C, Lentsk MH, Vargas G, Baratieri T. Causas de internação hospitalar de idosos residentes em um município do Paraná, uma análise dos últimos 5 anos. *Rev Enferm UFSM* 2011;1(3):394-402.
23. Santos TRA, Lima DM, Nakatani AYK, Pereira LV, Leal GS, Amaral RG. Consumo de medicamentos por idosos, Goiânia, Brasil. *Rev Saúde Pública* 2013;47(1):94-103.
24. Cavalcanti CL, Gonçalves MCR, Ascitti LSR, Cavalcanti AL. Prevalência de doenças crônicas e estado nutricional em um grupo de idosos brasileiros. *Rev Salud Pública* 2009;11(6):865-877.
25. Christofoletti G, Carregaro RL, Oliani MM, Stella F, Bucken-Gobbi LT, Gobbi S. Locomoção, distúrbios neuropsiquiátricos e alterações do sono de pacientes com demência e seus cuidadores. *Fisioter Mov* 2013;26(1):47-53.

Received on: 20/07/2016

Required for review: 06/09/2016

Approved on: 04/01/2017

Published on: 25/10/2017

Contact of the corresponding author:

Samara Karine Sena Fernandes Vieira

Av. dos Expedicionários, 790

São João, Teresina-PI

ZIP-code: 64046-700

E-mail: <samarakarinecs@yahoo.com.br>.