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ORIGINAL ARTICLE

FUNCTIONAL EVALUATION OF ELDERLY PEOPLE CARED FOR IN A UNIT OF REFERENCE TO THE HEALTH OF THE ELDERLY

AVALIAÇÃO FUNCIONAL DE IDOSOS ATENDIDOS EM UMA UNIDADE DE REFERÊNCIA À SAÚDE DO IDOSO

EVALUACIÓN FUNCIONAL DE ANCIANOS ATENDIDOS EN UNA UNIDAD DE REFERENCIA A LA SALUD DEL ANCIANO

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ABSTRACT

Objective: to evaluate the functionality of the elderly attended in a unit of reference to the health of the elderly. **Method:** descriptive, epidemiological, quantitative approach study with 98 elderly. Data analysis was performed using the SPSS software (version 18.0) and the variables were submitted to the Pearson Chi-square test. The data were presented in tables. **Results:** there was a predominance of the female audience (76.5%); the prevalent age range was 71-80 years, and most of them presented low schooling. Arterial hypertension was the most frequent morbidity, affecting 54.7% of the women. Regarding functional evaluation, all the elderly were independent for daily activities. **Conclusion:** Functional screening tools are fundamental for the identification and early assessment of the risks to disability of the elderly. **Descriptors:** Daily Routine Activities; Geriatric Nursing; Elderly.

RESUMO

Objetivo: avaliar a funcionalidade de idosos atendidos em uma unidade de referência à saúde do idoso. **Método:** estudo descritivo, epidemiológico, de abordagem quantitativa, realizado com 98 idosos. A análise dos dados ocorreu pelo software SPSS (versão 18.0) e as variáveis foram submetidas ao teste do Qui-quadrado de Pearson. Os dados foram apresentados em tabelas. **Resultados:** houve predomínio do público feminino (76,5%); a faixa etária prevalente foi de 71-80 anos e a maioria apresentava baixa escolaridade. A hipertensão arterial foi a morbidade mais referida, acometendo 54,7% das mulheres. Quanto à avaliação funcional, todos os idosos eram independentes para as atividades cotidianas. **Conclusão:** as ferramentas de rastreamento da funcionalidade são fundamentais para a identificação e a avaliação precoce de riscos para a incapacidade dos idosos. **Descritores:** Atividades Cotidianas; Enfermagem Geriátrica; Idoso.

RESUMEN

Objetivo: evaluar la funcionalidad de los ancianos en una unidad de salud de personas mayores. **Método:** estudio descriptivo, epidemiológico, de abordaje cuantitativo, realizado con 98 ancianos. El análisis de datos ocurrió por el software SPSS (versión 18.0) y las variables fueron sometidas a la prueba de Chi-cuadrado de Pearson. Los datos se presentaron en tablas. **Resultados:** hubo un predominio de público femenino (76.5%); el grupo de edad de prevalencia fue de 71 a 80 años y la mayoría presentaba baja escolaridad. La hipertensión arterial fue la morbilidad más referida, 54.7% de las mujeres. Sobre la evaluación funcional, todos los ancianos eran independientes para las actividades diarias. **Conclusión:** las herramientas de proyecciones de funcionalidad son clave para la identificación y evaluación temprana de riesgos de discapacidad de ancianos. **Descriptores:** Actividades Diarias; Enfermería Geriátrica; Ancianos.

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INTRODUCTION

The increase in the number of elderly people is a worldwide phenomenon, and, according to data from the 2010 census of the Brazilian Institute of Geography and Statistics (IBGE), this group was the fastest growing in the last decade, corresponding to 12.1% of the Brazilian population. Advances in medicine and socioeconomic changes are responsible for raising the average life expectancy at birth from 45.5 years, recorded in 1940, to 74.1 years, in 2011.²

The aging process involves a gradual reduction of health status, with a consequent change in the epidemiological profile of the population, characterized by the prevalence of Chronic Non-Transmittable Diseases (CNTD), making the evaluation of the health status of the elderly population essential.¹

Because of this new profile of illness, there was an expansion of the concept of health that began to consider the well-being of the individual, involving the physical, mental and social dimensions and not only the absence of disease. Regarding the elderly population, one aspect related to well-being is functionality, seen as a new health paradigm, being the basic dimension for geriatric evaluation.³

There are several ways to assess functionality. In many epidemiological studies it is common to consider the ability to perform Basic Activities of Daily Living (BADL) and Instrumental Activities of Daily Living (IADL), as well as those related to mobility. Therefore, functional capacity is conceptualized as the potential that the elderly have to decide and act in their lives independently in the daily life, since the incapacity refers to the difficulty or need of help for the individual to carry out their daily activities.²

There are several scales responsible for assessing the functionality of the elderly, such as the Katz index which covers the basic activities of daily living (bathing, dressing, going to the toilet, transference, continence and feeding). The analysis of this index is quite effective, since it related functionality with elderly self-care.⁴ In addition to this scale, there is also the Barthel Index, that evaluates the performance of the elderly from ten domains: food, bath, clothing, personal hygiene, intestinal elimination, bladder elimination, use of the toilet, chair-bed passage, wandering and stairs.

The Barthel Index scale was developed in 1965, with the objective of evaluating stroke patients. However, over the years, it began to evaluate ADL, providing precise indicators for

English/Portuguese

the preparation of studies, and monitoring of functional changes throughout life.⁶

According to clinical judgments and implicit criteria, the scale score varies from zero to 100, and the lower the score, the greater the dependence. This scale presents advantages such as: easy application, low cost, time saving, and can be applied periodically, in addition to presenting reliable results and consistent validity.

In this context, the health services should be prepared to attend this age group, not only performing the diagnosis of diseases, but also understanding the functional aspects of the elderly, involving physical and mental health, socioeconomic conditions and self-care capacity. Functional evaluation is essential for choosing the type of intervention and monitoring the clinical-functional status,² therefore, it is important that the nurse accompanies this new demand of the elderly population and learns of light technologies that help in the recognition of the functional state of the elderly.

OBJECTIVE

- To evaluate the functionality of the aged person attended in a unit of reference to the health of the elderly.

METHOD

A descriptive study, quantitative approach, developed in a reference unit for elderly health in Belém, linked to the Municipal Health Department (SESMA), and had about nine thousand people registered with daily attendance.

Inclusion criteria were: people aged 60 years and over, of both sexes, attended at the institution, who presented mental conditions to answer the questions that appeared in the research instruments, and who spontaneously accepted to participate in the research, and by signing the Term of Free and Clarified Consent. Data collection was performed in the period of October 2012, and the final sample corresponded to 98 from the calculation to estimate the sample size.

Data was collected from two research instruments: a questionnaire for independent variables, such as socio-demographic characteristics and self-reported health conditions, and the outcome variable was the functional evaluation of the elderly through the Barthel Index.

For the data analysis, a database was built in the Microsoft Excel 2007 Program and the analysis was performed through the statistical package (SPSS version 18.0). The ratios, mean

and standard deviation, as well as the analyzes were according to sex, using the Pearson Chi-square test. The error $\alpha = 10\%$ and p value = 0.10 were accepted.

This study took into account the ethical and legal aspects provided for in Resolution 466/12 of the National Health Council, and the research project was approved by the Ethics and Research Committee of the Graduate School of Nursing / State University of Pará, CAAE nº 08407712.7. 0000.5170.

RESULTS

Table 1 presented the sociodemographic profile of the elderly participants in the sample by sex. It was observed that the majority were female, both sexes belonged to the middle age group (71-80 years), and with low level of education, the fundamental incomplete. As for the marital status, among the men the married ones predominated, however among the women there was greater index of widows.

Table 1. Sociodemographic profile of the sampled elderly who participated in the study, by sex. Belém (PA), Brazil, 2012.

Variables	Male		Female		p-value
	n	%	n	%	
Age Group	23	23.5	75	76.5	0.86
60- 70	7	30.4	26	34.7	
71- 80	12	52.2	39	52.0	
81 - +	4	17.4	10	13.3	
Mean (73.8 years) SD = 5.9					
Marital status					0.01
Married	15	65.2	23	30.7	
Widower	5	21.7	31	41.3	
Not married	3	13.0	21	28	
Education					0.92
Incomplete basic level	16	69.6	49	65.3	
Medium or +	6	26.1	22	29.3	
Never studied	1	4.3	4	5.3	

* P value ≤0.10. Pearson's Chi-square test

The data of table 2 showed the health conditions of the elderly participants of the sample by sex. It was found that, among the comorbidities prevalent by the study subjects,

hypertension was highlighted in both men and women, but, without significant statistical differences. As for falls, women reported more falls compared to men.

Table 2. Health conditions of the sampled elderly who participated in the study, by sex. Belém (PA), Brazil, 2012.

Variables	Male		Female		p-value
	n	%	n	%	
Comorbidities					
Hypertension	15	65.2	41	54.7	0.37
Osteoporosis	7	30.4	40	53.3	0.05
Dyslipidemia	10	43.5	28	37.3	0.59
Cataract	5	21.7	28	37.3	0.19
Arthritis	3	13.0	19	25.3	0.21
Urinary incontinence	2	8.7	19	25.3	0.08
Sleep disorders					0.07
Yes	8	34.8	42	56	
No	15	65.2	33	44	
Forgetfulness					0.02
Yes	9	39.1	49	65.3	
No	14	60.8	26	33.06	
Falls					0.57
1 time	2	8.7	8	10.7	
2 times or +	1	4.3	16	18.6	

* P value ≤0.10. Pearson's Chi-square test

Table 3 presented the evaluation of the functionality of the elderly participants of the sample according to the Barthel Index. It was

observed that all the elderly, of both sexes, were independent for the activities of daily living.

Table 3. Evaluation of the functionality of the elderly of the sample according to the Barthel Index among those who participated in the study. Belém (PA), Brazil, 2012.

Barthel Index	n	%
≥ 60	98	100
< 60	-	
Total	98	100

Barthel Index ≥ 60 points = Independent; ≤60 points = Dependent.

DISCUSSION

In the study, the female sex was predominant, with 76.3%, and the male sex was only 23.5%. Similar results were found in a study on the evaluation of functional capacity and factors associated with disability, performed in Monte Claros, Minas Gerais, in which the women corresponded to 63.3% of the study participants. In this same research, it was identified that the female sex is generally more dependent for the IADLs. Although they are more longevous, and have a worse quality of life.²

Women constitute the majority of the elderly population worldwide, and estimates show that women live on average five to seven years longer than men. The female contingent over sixty years old in Brazil rose from 4.7%, in 2000, to 6%, in 2010, but, the female population accumulates disadvantages during life as violence, discrimination, low schooling, loneliness due to widowhood, negatively influencing functionality.⁷

The mean age of the study participants was 73.8 years, for both sexes. In a study carried out in Campina Grande-Paraíba on self-evaluation of health status, the average age of the participants was 71.57 years, and among the men belonging to the age group from 70 to 79 years, the majority considered health to be good, diverging from the other groups.¹

The advanced age group is related to cognitive impairment, generating greater impact in daily activities, as individuals may present emotional instability, inadequate social behavior, apathy and difficulty in dealing with emotional issues.⁸

As for marital status, women were, mostly, widows, while men were married. In a study on frailty syndrome in the elderly, carried out in Ribeirão Preto-MG, it was identified that the fragile group was predominantly composed of widowers, so, the loss of the partner can be considered as a stressor event for the clinical manifestations of this syndrome.⁹

With regard to schooling, incomplete teaching predominated for both sexes. Schooling is an important indicator between socioeconomic status and self-evaluation of

health status, with influence on the functionality of the elderly, since individuals with high levels of income and schooling have access to health goods and services, giving a better quality of life.¹

It was observed that the frequently mentioned morbidities were: hypertension, osteoporosis, urinary incontinence, dyslipidemia, cataract and arthritis, prevalent among women, which may be justified by the greater concern and demand for health services by the elderly. The presence of one or more diseases may interfere in the control of the daily activities of the elderly, as well as their functional capacity.

Studies show that the symptoms of hypertension such as fatigue, palpitations, tingling in the upper and lower limbs, headache, hamper the development of activities of daily living, and when uncontrolled, is one of the risk factors for coronary heart disease, strokes, whose side effects compromise the cognitive function and quality of life of the elderly.^{8,10}

Regarding osteoporosis, 53.3% of the elderly women in the study presented this morbidity. This result corroborates with data from the literature that considers women more prone to being sedentary, evolving with reduced muscle strength, which affects the osteo-articular system. In a survey of disabilities of instrumental activities of daily life related to gender, it was identified that elderly women classified as dependent had a higher proportion of osteoarthritis, depression and falls.¹¹

However, urinary incontinence was shown to be associated with sex. This pathology is considered a natural process of aging, but, it is an embarrassing event that can lead to social isolation, changes in self-esteem and self-image, influencing daily activities.²

Although it is frequently reported, urinary incontinence, is often, neglected on clinical examination, and the diagnosis should be accompanied by an extensive investigation of the possible causes. Strategies to improve the lifestyle of the elderly are necessary for promotion, treatment and rehabilitation of functional capacity of the sphincter. For this, the encouragement of behavioral changes and

exercises to strengthen the urethral sphincter are fundamental.²

Sleep disturbance was present mainly among women. In the elderly, sleep becomes superficial and fragmented, that is, it presents lower efficiency and worse quality. Changes in the sleep pattern may increase the risk of falls, compromise the cognitive system, impair respiratory and cardiovascular functions, and increase mortality.¹³

Forgetfulness was another condition reported in the study, especially by the elderly. In a study about elderly people using medication, developed in Fortaleza-CE, it was observed that forgetfulness was one of the factors for the difficulty of management and therapeutic adherence. Often the memory changes are related to depressive symptoms, personality traits And the beginning of some dementias.¹⁵

In this study, the elderly women reported having suffered more falls. Falls are the main causes of trauma among the elderly, and the risk of occurrence is associated with the following biological, environmental, behavioral and socioeconomic factors.¹²

The elderly are more likely to suffer injuries from falls due to their fragility triggered by the high prevalence of comorbidities and functional decline due to the aging process. The main consequences of these injuries are long periods of hospitalization, increased difficulty and dependence to perform ADLs, constant fear of falling, limiting the participation of the elderly in daily activities.¹²

Regarding the functional evaluation by the Barthel Index, all the elderly were classified as independent. In a study on the evaluation of the balance and level of functional independence of the elderly, developed in Marília-SP, it was verified that the score of the Barthel scale ranged from 85 to 100, with a moderate correlation between the risk of falls and the level of independence Functional.¹⁴

From an integrative review of the literature on the dependence of the elderly on the activities of daily living published in 2014, it was observed that 33.3% of the references indicated a successful aging according to functional capacity, and 66.7% % Reveal that the greatest dependence is on the ADLs, since they are more complex tasks and are normally carried out outside the family environment, suffering influences such as: advanced age, chronic diseases, cognitive decline and locomotor disorders.⁵

It is important to consider that self-perception of health influences the functional

performance of the elderly, since there is a strong association with mortality, regardless of chronic diseases and socioeconomic factors. Some studies have shown that the elderly that evaluate their health status as good, poor or poor are at higher risk of death, when compared to those who consider health as excellent.¹

The self-assessment of health was considered as a reliable indicator and with validity equivalent to other complex measures for assessing health status, besides being easy to apply.¹ It is observed that several factors influence the elderly functionality, being fundamental the discussion on this subject, because it interferes in the autonomy and insertion of the elderly in society.

CONCLUSION

It was noticed that the majority of the elderly involved in the research is female, with low educational level and systemic arterial hypertension was the morbidity with higher prevalence. Regarding the functional evaluation, according to the Barthel index, all were classified as independent for ADLs. From this perspective, the health professional, especially the nurse, should aim at actions that allow maintenance of functionality, with autonomy and independence, through the provision of light technologies that facilitate the analysis of functional status, which will contribute to improve the quality of the elderly.

In spite of the limitations of the study and of having been carried out with a convenience sample, our intent is that the results of this study in our local reality, may contribute to the development of new research involving this theme.

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