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## RESEARCH

## Perdas da capacidade funcional em idosos institucionalizados no município de Natal/RN

Losses of functional capacity in elderly institutionalized in the city of Natal/Rio Grande do Norte

Pérdidas de capacidad funcional en ancianos institucionalizados en la ciudad de Natal/Rio Grande do Norte

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## ABSTRACT

**Objective:** Analyze aspects related to functional disability of the elderly living in a Long Permanence Elderly Institution (ILPI) in the city of Natal - Rio Grande do Norte. **Method:** Descriptive, exploratory and quantitative study realized with 48 elderly, through interview, Katz Index and MMSE - Mini Mental State Exam. **Results:** 52.08% were female with a mean of  $78 \pm 8.62$  years old, 54.17% singles and 27.08% widowed. 41.66% had no children, and 31.25% are illiterate. 75% are independent; partially dependent 8.33% and 4.16% are dependent. **Conclusion:** The results reveal the importance of using geriatric assessment tools in the identification of the profile of the institutionalized elderly, allowing to develop health promotion strategies, prevention of diseases and rehabilitation given the functional losses of the elderly. **Descriptors:** Elderly, ILPI, dependence, geriatric assessment.

## RESUMO

**Objetivo:** Analisar os aspectos relacionados com a incapacidade funcional dos idosos residentes em uma Instituição de Longa Permanência para Idosos (ILPI) no município de Natal - Rio Grande do Norte. **Método:** Estudo descritivo, exploratório e quantitativo realizado com 48 idosos, por meio de entrevista, do Índice de Katz e do MEEM - Mini Exame de Estado Mental. **Resultados:** 52,08% eram do sexo feminino com média de  $78 \pm 8,62$  anos de idade, 54,17% solteiros e 27,08% viúvos. 41,66% não tiveram filhos e 31,25% são analfabetos. 75% são independentes, 8,33% parcialmente dependentes e 4,16% são dependentes. **Conclusão:** Os resultados revelam a importância de utilizar instrumentos de avaliação geriátrica na identificação do perfil dos idosos institucionalizados, permitindo desenvolver estratégias de promoção à saúde, prevenção aos agravos e reabilitação, em face das perdas funcionais dos idosos. **Descritores:** Idoso, ILPI, dependência, avaliação geriátrica.

## RESUMEN

**Objetivo:** Analizar los aspectos relacionados con la discapacidad funcional de los ancianos residentes en una Institución de Larga Permanencia para Ancianos (ILPI) en el municipio de Natal - Rio Grande do Norte. **Método:** Estudio descriptivo, exploratorio y cuantitativo realizado con 48 ancianos, por medio de entrevistas, del índice de Katz y MEEM - Mini Examen del Estado Mental. **Resultados:** El 52,08% eran mujeres con una media de  $78 \pm 8,62$  años de edad, 54,17% solteros y 27,08% viudos. 41,66% no tenía hijos y 31,25% son analfabetas. 75% son independientes, 8,33% parcialmente dependiente y 4,16% son dependientes. **Conclusión:** Los resultados revelan la importancia de utilizar las herramientas de evaluación geriátrica en la identificación del perfil de los ancianos institucionalizados, lo que permite desarrollar estrategias para promoción la salud, prevención las enfermedades y rehabilitación, dadas las pérdidas funcionales de los ancianos. **Descritores:** Anciano, ILPI, dependencia, evaluación geriátrica.

It is elaborated from title monograph: Related aspects with the loss of functional capacity of elderly living in an institution of long permanence in the city of Natal/RN, presented at the Faculty Estácio of Rio Grande do Norte/FATERN in 2012 year. <sup>1</sup> Nurse of Estácio de Sá University of Rio Grande do Norte, specializing in Urgency and Emergency <sup>2</sup> Nurse of Family Health Unit in the city of São José de Mipibú - Rio Grande do Norte <sup>3</sup> Assistant Professor of Collective Health Department at the Federal University of Rio Grande do Norte/UFRN <sup>4</sup> Doctorate Professor in the Psychology Department of Federal University of Rio Grande do Norte/UFRN.

## INTRODUCTION

**T**he population aging is, today, a relevant worldwide phenomenon. In addition to the numerical growth, life expectancy of individuals with more than 60 years has increased significantly.<sup>1</sup> The longevity increase is due, among other factors, to the scientific advances, improvements in health infrastructure, better socioeconomic conditions and the reduction in birth rate that has occurred in recent decades. Changes in the demographic profile bring important social and economic repercussions for the entire population, especially for the elderly.<sup>2</sup>

Brazil, also has been showing accelerated changes in the population pyramid, because, according to the IBGE, there are currently about 21 million of elderly, and the prospect for 2025 is that this number reaches the range of 32 million, in sixth place, about the amount of elderly people in the world.<sup>3</sup> The improvement in living conditions have changed the pattern of morbidity and mortality and modified the epidemiological profile of the diseases. Infecto-contagious diseases have given space to a higher incidence of Chronic Non-transmissible Diseases (DCNT), which, accompanied by squeals, limit the functional performance and generate dependency.<sup>4</sup>

As people get older, they become more vulnerable to acquisition of chronic-degenerative diseases, with the possibility of becoming functional dependent and therefore familiar, emotional and economical.<sup>5</sup> It is realized that, the higher is the stage of life of the elderly, the greater the potential risk of developing disabilities, of cognitive and/or physical dependence. The decrease or loss of independence and autonomy influences directly the difficulties in performing the Daily Living Activities (AVD). It has been recorded that, each year, about 10% of the adult population, from 75, lose independence in one or more AVD.<sup>6</sup> The AVD are routine activities of everyday life which involve activities related directly with the maintenance of their own care, such as: feeding, bathing and dressing, toileting, lie down and get up out of bed, in addition to controlling urinary sphincters and fecal.<sup>7</sup>

Functional capacity is a very close to the concept of health, would be the full maintenance of the physical and mental abilities achieved on the path of life, which is indispensable for the maintenance of an independent and autonomous life.<sup>8</sup> Functional dependence raises the need for a caregiver and that's a big factor for institutionalization. But the social, economic and cultural factors, in which the individual is inserted, influence directly on family decision to insert it in an Institution of Long Permanence for Elderly (ILPI).<sup>9-11</sup>

It is observed that the decline in functional ability worsens with the sedentary and is more prevalent among elderly residing at ILPI, due to being an encouraging environment, which makes them holders of various consequences of inactivity. Therefore, the evaluation of the functional capacity of the institutionalized elderly allows select appropriate interventions to combat the predictable dependencies and the promotion of a more active

and healthy life.<sup>12</sup> Such evaluations and systematized interventions do not represent even an usual procedure, but also there are few studies that evaluate the functional and physical condition of institutionalized elderly.<sup>12</sup> The assessment of functional capacity arises, therefore, as a new paradigm of health, particularly relevant for the elderly, based on the concept of health and quality of life, which should be allies to the increased life expectancy of the people.

On this reality and considering the progressive increase of elderly residing in ILPI, arises, then, the following question: How can be find the functional capacity of the elderly in the environment in which they are inserted? This study aimed to analyze aspects related to functional impairment of the elderly person living in Long-stay Institutions and identify which functions of the activity of daily living (AVD), measured by Katz were most affected.

## METHOD

It is an exploratory research, contemplating a quantitative approach, held in a philanthropic character ILPI, located in the municipality of Natal-RN.

Survey respondents were the elderly residents at the Institution, with age less than 60 years old, both sexes, which have agreed to participate in the study voluntarily. Thus, the population of the research was of 108 elderly. In order to direct better the data collection, we used, in addition to the above inclusion criteria, exclusion criteria. These included the residents under 60 years old, who did not accept to participate in research or sign the Free Informed Consent Form (TCLE), and those who showed cognitive deficits and did not have a position to respond to the TCLE and sign it, which was derived from the classification given by MEEM - Mini Mental State Examination. From the study the elderly with moderate or severe dementia Were excluded, or with aphasia of expression and comprehension, or with any other pathology that would prevent the interaction and communication and, consequently, disable them to express opinions, hindering understanding and information credibility.

In data collection, before the application of the questionnaire was presented the TCLE, after whose signature, began the collection of information through direct interview, in which the questionnaire was applied to identification of the elderly with socio-demographic variables and health. Then the MEEM was used in order to identify possible changes related to cognitive losses in those individuals that could compromise the credibility of the information, and finally applied the guiding instrument of study, KATZ scale, which assesses the independence of the elderly in the performance of six functions (bathing, dressing, toileting, continence, transfer and food), sorting the elderly as independents, partially dependent or total dependents.<sup>13</sup>

The collection period occurred between the months of February to March 2012. After completing the application form for identification of the elderly and the MEEM, the data

were placed in a database in Excel ® program, being carried out statistical analysis of simple descriptive type, as frequency distribution, Mean and Standard deviation. The project was approved by the Ethics Committee of the Federal University of Rio Grande do Norte under nº 164/2011, of May 11, 2011.

## RESULTS AND DISCUSSION

After administration of MEEM in all elderly who have agreed to participate in the research (108), we note that 60 elderly (55.6%) were with impediments related to cognitive disorders and weren't able to respond to the questionnaire, which led to a reduction in our sample, for 48 elderly (44.4%). Of these, 25 (52.08%) are female sex and 23 (47.92%) male, with an average age of 78 years  $\pm$  8.62. In accordance with the present study, the average age around 80 years, as well as the predominance of the female, was also found by various authors in their research.<sup>14</sup> Regarding education, the average years of study was of 3.42  $\pm$  3.5 years; 87.5% are retired; 54.17% singles, 27.08% are widowed and 18.75% separated. It was evidenced that 41.66% had no children and 16.6% had only one; 68.74% rate their health as poor or regular, but 52.01% have only one morbidity.

Regarding activities evaluated by KATZ, it was observed that 81.25% of the elderly are independent, whereas in no dependence or in just one function, 8.33% partially dependent, dependent on two to four functions, and 10.41% dependent, being dependent on five or all functions (Figure 1). The work done by Lucena et al.<sup>15</sup> apud Carvalho et al.<sup>16</sup>, the studied population presented a health state from regular to good, since only 38.5% of the elderly met partially or wholly dependent, according to the Katz index. Already in study of Carvalho et al.<sup>16</sup>, 50% of elderly had important dependency.

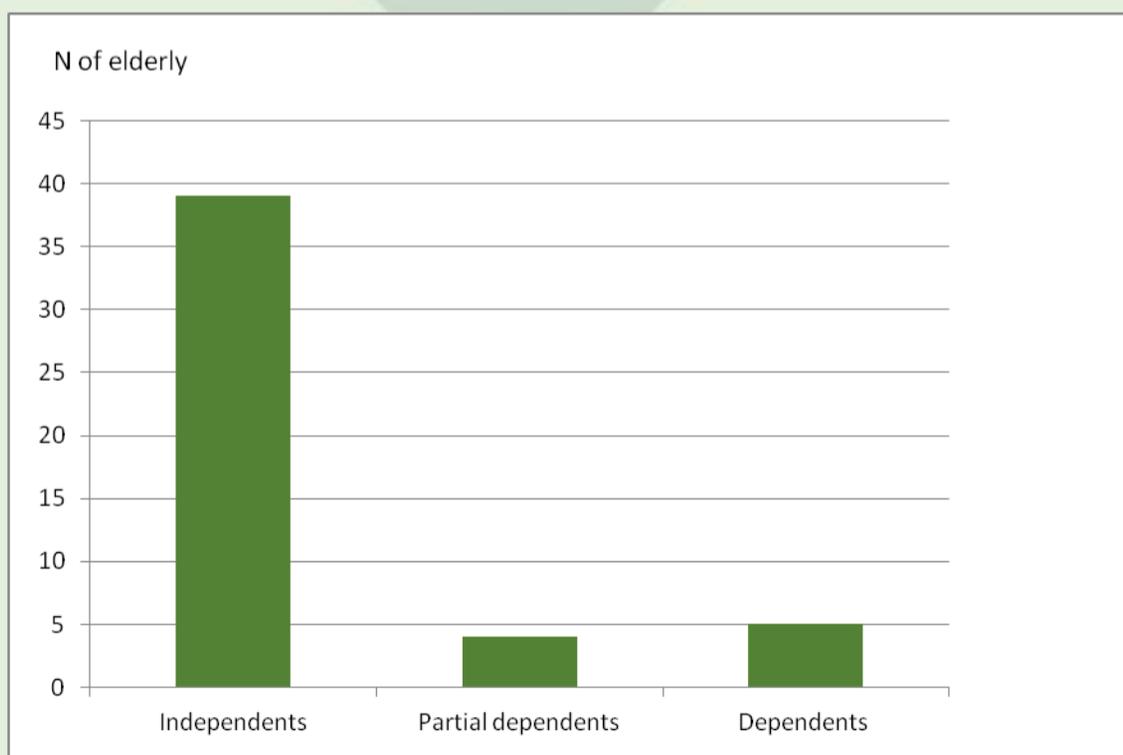


Figure 1 - Number of elderly living in a ILPI in relation to the functional dependence degree, Natal/RN, 2012.

It was verified the functional capacity of the elderly in relation to the age and sex of each, and it was realized that the number of dependent women is greater than men, as one of five dependants elderly, four are women (Figure 2). This allows us to say that, although women live longer than men, they don't age healthfully. Rosa et al.<sup>17</sup> observed a strong association between sex and the occurrence of dependency, being around twice the chance for women compared to men.

Dependency Degree	Sex			
	M	%	F	%
Independent	20	41,6	19	39,6
Partial dependent	2	4,16	2	4,16
Dependent	1	2,08	4	8,3
Total	23	47,9	25	52,06

Figure 2 - Distribution of the elderly according to the Katz index and sex, Natal/RN, 2012.

The data also show independence in all age ranges of the elderly, especially in higher elevations, which diverges in some studies, since, in this case, the elderly aged 80 and 89 years old are the most independent (35.41%), when compared with the smaller age (Figure 3).

Dependency Degree	Group Age							
	60-69	%	70-79	%	80-89	%	90-99	%
Independent	10	20,8	11	22,9	17	35,4	1	2,1
Partial dependent	1	2,08	-	-	2	4,16	1	2,1
Dependents	1	2,08	2	4,16	1	2,08	1	2,1
Total	12	25	13	27,1	20	41,6	3	6,2

Figure 3 - Distribution of the elderly according to the Katz index and the age range, Natal/RN, 2012.

Still regarding activities evaluated by Katz, the act of feeding was the function developed by them with greater independence, about greater dependence stands out dress-up activities and bathe.

## CONCLUSION

This study showed the prevalence of women in relation to men, being this trend more pronounced in aged 80 years and over. We can consider the solitude of the studied elderly, as justification for choice of residences at ILPI, given the high percentage of single individuals in the study, in addition to the large number of elderly who never had kids, bringing as consequence the lack of close relatives to take care of them.

It was verified that the low level of schooling interferes with the autonomy, independence and, consequently, in the functional capacity of the elderly. Notice also that the underage elderly have minor morbidities than the old higher, although not in a large proportion. This confirms the fact that people do not have aged healthily. The older is getting the individual, greater exposure to other morbidities, being susceptible to increased fragility, that demand greater attendance in health. Some authors report that the increase of the limitations in AVD is directly related to increased morbidities in the elderly.<sup>18</sup>

Costa and Monego<sup>19</sup> also show that the number of elderly with some degree of disability increases with age, and about 50% of those with more than 85 years have limitations in their daily activities. However, we can relate the high degree of independence of the elderly of the research with the cut-off points given by MEEM, since some authors claim that the high rate of functional independence can be explained by the high level of cognitive ability of individuals. Inactive, reduced to the condition of the object, the inmate of an asylum quickly becomes senile. Inside the asylums accelerate all the pathological processes that are subject to old age.<sup>20</sup> The elderly who are living in asylum lose their originality and autonomy, action and reasoning.

Therefore, the aging and their social consequences have a significant influence on the independence degree and functional capacity of the elderly. It is the use of geriatric assessment instrument, as the Katz index, a facilitator in the identification of the profile of the institutionalized elderly, making it more reliable transmission of information between the multidisciplinary team of the institution and allowing following the decline of elderly according to their functional losses.

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