Relação entre a capacidade funcional e a institucionalização da pessoa idosa: uma revisão integrativa

Relation between the functional capacity of the elderly and institutionalization: an integrative review

Relación entre la capacidad funcional de los ancianos e institucionalización: una revisión integradora

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ABSTRACT

Objective: Analyze the relation in the scientific production between functional capacity and institutionalization of the elderly people. Methods: An article survey was conducted in databases, which were used the descriptors “elderly”; “elderly with functional disabilities” and “long stay institutionalization of the elderly people”. Seven articles were analyzed between October and December 2013. Results: Of the seven articles found, 85.7% were exploratory and descriptive research, 04 (57.14%) were performed in the Brazil Southeast region from Kartz Index (05 (71.4%)). Only one study presented evidence of this condition, showing an improvement in the physical condition of the independent elderly. Conclusions: It was found that there is no scientific evidence proving the existence of this condition in the elderly independent, which makes it necessary to develop new research focused on institutionalization verification as a determinant of functional disability in the elderly, regarding the low production of studies on this topic.

Descriptors: Aged; Frail Elderly; Homes for the Aged.

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RESUMEN
Objetivo: Analizar, en las producciones científicas, la relación entre la capacidad funcional y la institucionalización de ancianos. Métodos: fue realizado un levantamiento de artículos en bases de datos, donde se utilizaron los descriptoros "idoso" AND "idoso com deficiência funcional" AND "instituição para idosos", siendo analizados siete artículos en el periodo de octubre y diciembre de 2013. Resultados: De esos siete encontrados, 85,7% eran investigaciones exploratorias y descriptivas, cuatro (57,14%) fueron realizados en la región Sudeste de Brasil desde el Index Kartz 05 (71,4%). Apenas una pesquisa apresentou evidências dessa condição, demonstrando melhora na condição física dos idosos independentes. Conclusiones: Se constató não haver evidências científicas que comproven a existência dessa condição em idosos independentes, o que torna ainda necessário o desenvolvimento de novas pesquisas voltadas à verificação da institucionalización como determinante da incapacidade funcional en idosos, visto a baixa produção de estudios voltados a essa temática.

Descritores: Idoso; Idíodo Com Deficiência Funcional; Instituição de Longa Permanência para Idosos.

RESUMO
Objetivo: Analizar, nas produções científicas, a relação entre a capacidade funcional e a institucionalização da pessoa idosa. Métodos: foi realizado um levantamento de artigos em bases de dados, onde se utilizaram os descriptores “idosos” AND “índice de deficiência funcional” AND “instituição de longa permanência para idosos”, sendo analisados sete artigos, no período de outubro e dezembro de 2013. Resultados: Desses sete encontrados, 04 (85,7%) eram pesquisas exploratórias e descriptivas, 04 (57,14%) foram realizados na região Sudeste do Brasil a partir do Index de Kartz 05 (71,4%). Apenas uma pesquisa apresentou evidências dessa condição, demonstrando melhora na condição física dos idosos independentes.

Conclusões: Constatou-se não haver evidências científicas que comprovem a existência dessa condição em idosos independentes, o que torna ainda necessário o desenvolvimento de novas pesquisas voltadas à verificação da institucionalização como determinante da incapacidade funcional em idosos, visto a baixa produção de estudos voltados a essa temática.

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INTRODUCTION
Population aging is a phenomenon known in developed countries. In Brazil, a developing country, the elderly population grew, putting it in seventh position, that is, with a population of over 32 million people aged 60 or more.1

This event was due to the decrease in the fertility rate and infant mortality, the first is due to the ease access to education and health, to family planning programs and the incorporation of women into the labor market, starting a trend of families increasingly smaller. The second is because it was possible to prevent and treat infectious diseases from the Daily Living Activities (DLA).7

As a result of these diseases, the frail elderly person can become dependent to perform everyday activities.6 As a result of these diseases, the frail elderly person needs assistance because their functional capacity is compromised and performance is unsatisfactory to perform the Daily Living Activities (DLA).7

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With this demographic change in Brazil, the needs of older people increased and the milestone referring to this is the installation of the National Policy of Health of the Elderly (PNSPI). The PNSPI appeared in 1999 on the initiative of the Ministry of Health and was revised in 2006 through strategies to improve the National Health System, SUS, which defined in the Commitment Agenda for Health, three axes: the Pact in defense of the Unified Health System (SUS), the Pact in defense of Life and Management Pact. Highlighting the Pact in Defense of Life, which would set the priorities of the three administrative spheres of Brazil, establishing some priorities as the elderly health, health promotion and strengthening of primary care.2-3-4

In this context, Statute of the Elderly is considered a major milestone in maintaining a good health of the elderly, in order to reach active aging for the elderly to be part of the community and the family with the highest possible degree of physical, mental and social independence, since the Statute is the set of rights and duties of the elderly.1

Then the Ordinance No. 687 / GM of March 30, 2006, the National Policy for Health Promotion repealed promoting factors that increase the longevity of being as healthy eating, physical activity, prevention and control smoking, reduce morbidity and mortality by abuse of alcohol and other drugs, as well as traffic accidents, violence prevention and sustainable development; thus promoting Active Ageing proposed by the Pan American Health Organization in 2005, which states that the Active Aging is the process of optimizing opportunities for health, participation and security in order to improve the quality of life as the people age.3,5

Human aging is a progressive, individual and natural phenomenon, which can be observed in the individual deficits of their normal physiological conditions. The vulnerability of the elderly, characterized by increased physical and emotional susceptibility, compared to the young individual, is dependent on a complex interplay of physical, psychological, social, economic and cultural factors.5

With advancing age, the onset of chronic diseases (DCD) along with the changes in the physiological aging, the elderly person can become dependent to perform everyday activities.6 As a result of these diseases, the frail elderly person needs assistance because their functional capacity is compromised and performance is unsatisfactory to perform the Daily Living Activities (DLA).7

 Added to this, the American Association of Homes and Services for the Aging states that about 70% of the population will need some kind of institutional or community care when you get to 60 or more.4 González et al add that the increase in the degree of dependence caused by decreased physical fitness and cognitive of the aging process is observed mainly in institutionalized elderly, as a result of the individual’s inactivity.9

Institutionalizing this is a new experience in the life of the elderly, he/she often undergoes significant changes, such as distance from family and friends, loss of autonomy, privacy and individuality, which can aggravate your current health status and cause also social problems.10

From this understanding, it is important to develop this research since the increase in the elderly population in Brazil,
the demands caused due to chronic diseases and functional
disabilities, as well as the number of elderly who need this
service as social support and health.

It is noteworthy that many researches indicate that
institutionalized elderly have functional limitations, but do
not show if this condition may have been favored or extended
by the institutionalization, thus justifying the need for such
research to verify these facts.

Thus, this study aims to answer the following question:
Is there a relationship between institutionalization and
functional capacity of the elderly? Therefore, this study aimed
to analyze the scientific production on the institutionalization
and functional capacity in the elderly as well as verify if
institutionalization is crucial for this condition.

METHOD

This is an integrative literature review, from the scientific
articles of electronic databases of the Cochrane Library,
IBECS (Spanish Bibliographical Index of Health Sciences),
Lilacs (Latin American and Caribbean Health Sciences) and
SciELO (Scientific Electronic Library Online), raised by the
descriptors “elderly” AND “function disabled elderly” AND
“long-stay institution for the elderly”

To include a scientific article on this research, the
following criteria were adopted: it was published in the 2003-
2013 period; have as main subject “the elderly”, “disability”
and “institutionalization”; have as objective the evaluation of
the functional capacity of institutionalized elderly, excluded
all other.

To select items, filters, full text, the main issue being
Institution for the Aged, Portuguese language and elderly
limit were also used, and it was found a total of eight articles
and, of these, only seven met the inclusion criteria in the
search. They also used the same descriptors in English, and it
was found six more articles, but that did not correspond with
the object to be studied, and it was also discarded.

After the selection of articles, data were analyzed
qualitatively from the reading in full, for each of them. Then
the following information gathered were then arranged in a
frame: titles, authors, year of publication, research objective,
research design, data collection instruments, sample and,
finally, the results of the study.

The discussion of these collected data was through the
intersection of research results found in scientific articles,
seeking to influence these outcomes may result in care of
the elderly, the academic preparation and practice of health
professionals in the health of the elderly.

RESULTS

Seven items were selected from the inclusion criteria
and obtained in Lilacs (3/7), SciELO (2/7) and Journal of
Human Aging Sciences (1/7). Regarding the design of the
study, it was found that 14.3% were prospective study (1/7)
and 85.7% were descriptive and exploratory study (6/7), of
these, 42.8% were cross-sectional (3/7).

Of these seven found, 04 (57.14%) articles were carried
out in the Southeast region of Brazil, 02 (28.57%) in the
South and only one multi-center study (14.28%) included the
Northeast / Southeast / South. As for the instruments used to
assess functional capacity, 05 (71.4%) used only the Index
of Kartz, 01 (14.3%) applied Kartz of Index and Lawton Scale,
and 01 (14.3%) used BARTHEL the scale.

Regarding the identification of institutionalization as
a determinant of functional disability in the elderly, it was
observed only in the research of Marcho, Lamb and Nakano,
which 30 elderly were subjects, 68% were maintaining
their functional capacity after two years, according to the
instrument Kartz.11 And in the study of Araújo, Ceolin, it
was observed that, when assessing 70 elderly initially as
independent, only 8.6% (6) progressed to various levels of
dependence on the period of 05 months.12
### Figure 1 - Publications associated with functional capacity and institutionalization of the elderly, 2003-2013 – Campina Grande – PB - 2013

<table>
<thead>
<tr>
<th>Title/author/year</th>
<th>Objectives</th>
<th>Research design</th>
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<tbody>
<tr>
<td>Changes in functionality/cognition and depression in elderly institutionalized that falls / Valcarenghi, Santos, Barlem, Pelzer, Gomes, Lange, (2011).</td>
<td>To analyze the influence of changes in functionality / cognition and the presence of depression in institutionalized elderly who have suffered falls.</td>
<td>Descriptive and exploratory study.</td>
<td>Index of Independence in Activities of Daily Living.</td>
<td>30 elderly subjects, 70% do not need assistance for ADLs.</td>
</tr>
<tr>
<td>Independence grade assessment of elderly residents in long-stay institutions / Araújo, Ceolim (2006).</td>
<td>To assess the degree of independence to perform ADLs of elderly residents in nursing homes in the city of Taubaté - SP, through the Katz Index; and re-evaluate after five months, the elderly initially classified as independent (grade A Katz).</td>
<td>Descriptive and exploratory study.</td>
<td>Katz Index</td>
<td>Of the 70 evaluated and classified elderly initially as independent seniors, only 8.6% (6) progressed to various levels of dependence on the period of 05 months. The biggest functional decline occurred among the elderly aged 80 or more (54%).</td>
</tr>
<tr>
<td>Functional Capacity: prospective study in elderly residents in long-term care facility / Marcho, Cordeiro, Nakano (2010).</td>
<td>To analyze clinical and functionally the ILPI of elderly following 18 months; assess the extent to which SPPB detect changes in functional capacity of institutionalized elderly in the period of 18 months; and analyze how changes in SPPB following are accompanied by changes in the cognitive, global clinical and functioning of institutionalized elderly.</td>
<td>Prospective research</td>
<td>Katz Index</td>
<td>Of the 30 elderly subjects, 68% were maintaining their functional capacity after two years, according to Katz instrument.</td>
</tr>
<tr>
<td>Elderly in a Long Term Care Institutions of Ribeirão Preto: functional capacity levels / Pelegrin, Araújo, Costa, Cyrillo, Rosset (2008).</td>
<td>To identify the functional capacity levels in elderly long-stay institution of Ribeirão Preto - SP; assess the level of dependency to perform the Activities of Daily Living; identify the socio-demographic profile and the presence of chronic diseases in the studied clientele; know the medicines used by the elderly; know the professionals who provide care for the elderly, as well as the profile of the institution of long-stay elderly.</td>
<td>Cross-sectional and descriptive study.</td>
<td>Katz Index</td>
<td>Of the 72 patients included in the study showed in all items of the Index of Katz that the elderly were independent.</td>
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<tr>
<td>The institutionalized elderly: assessment of functional capacity and physical fitness / Gonçalves et al (2010).9</td>
<td>To explore the relationship between physical fitness and functional capacity of residents in long-term care facilities for low-income seniors.</td>
<td>Cross-sectional study</td>
<td>Katz Index</td>
<td>Of the 377 patients included, 60 (76.9%) were independent in activities of daily life.</td>
</tr>
<tr>
<td>Health status and degree of dependence of elderly institutionalized people / Aires, Paz e Perosa (2009).15</td>
<td>To identify demographic, socioeconomic, behavioral characteristics, health status and degree of dependence of the elderly for the performance of Daily Life Activities (ADLs) and Instrumental Activities of Daily Living (IADL).</td>
<td>Descriptive and exploratory study.</td>
<td>Katz Index and Lawton scale.</td>
<td>Of the 31 elderly patients, it was found that 51.6% had partial dependence, 16.1% of the elderly had total dependence and 32.3% are independent.</td>
</tr>
<tr>
<td>Analysis of the functional capacity of institutionalized geriatric population in the city of Passo Fundo – RS / Guedes and Silveira (2004).16</td>
<td>To check the functional capacity of institutionalized geriatric population in the city of Passo Fundo – RS</td>
<td>Cross-sectional, descriptive and exploratory study.</td>
<td>BARTHEL scale.</td>
<td>Of the 109 elderly patients, it was found that 40.36% (46) of the elderly in need of supervision or assistance with most activities of daily living (ADLs) and 59.63% are considered independent, according to BARTHEL scale.</td>
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**DISCUSSION**

The growth of the elderly population is a worldwide phenomenon, being more seen in developed countries like the United States, due to better health and socioeconomic population. Although Brazil is a developing country, population aging is also a concern of public health, this because there is an increase in the rate of chronic non-communicable diseases, therefore, compromises the functional capacity of the elderly.14-15

Studies show that more research with this theme occurs in the South and Southeast regions, followed by the Northeast, Midwest and North, being proportional to the number of higher education institutions (HEIs) in these regions.17

By analyzing the collected articles, there was a slight relationship between the factors studied, because only a survey was developed from a prospective study to investigate this relationship, showing that the others were descriptive research. This could explain the fact by which it was obtained a discrete finding between functional capacity and institutionalization, given that the descriptive research aimed to investigate a series of information about the studied object in which there is an accurate description of the phenomena and facts.12,16,18

The prospective studies seek to investigate the etiology of disease or health-related conditions among the elderly, determinants of longevity, and evaluate actions and health services. Thus, it is possible to determine the incidence of a disease/condition between exposed and unexposed and know its natural history.19

For instruments for assessing the functional capacity of the elderly, it is noticed that most of the studies analyzed used the Index of Activities of Daily Living Assessment (ADLs), created by Katz et al in 1963, one of which also used the Lawton Scale and only one study applied the Barthel scale.

Studies show that the Katz scale is most commonly used in research with the elderly in Brazil because, on the other studies using other instruments that assess ADLs, research on Katz Index are relatively robust, with conceptual validity, predictive and concurrent, being ranked good as regards the quality of results.20 However, other researchers suggest that there is a difficulty in comparing the results of this scale as regards the analysis of dependence and independence of the elderly, because it is used in different ways.21

The Index Katz evaluates Daily Life Basic Activities (ADLs) that when compromised by the functional disability of the elderly, correspond to the most severe levels of physical disability, relevant skills for the most part to the weak and/or institutionalized patients.20 Katz scale assesses the functional performance of six ADLs: bathing, dressing, toileting, to transfer yourself, to be continent and feed, similar to the child's development.21

Another tool used to evaluate the functional capacity of the elderly was created by Lawton and Brody in 1969,
becoming known in Portuguese as Lawton Scale. Although little used, it has good reliability and validity, and is used from a summary or the full, together with other instruments, as used in article by Aires; Peace; Perosa. It is a tool widely used for its easiness in the application and interpretation, the low cost, does not require specialized personnel for their application, consume little time in your fill and still because of its use for screening (early) disability.22

The Lawton Scale evaluates the Daily Life Instrumental Activities (IADL) extending the activities assessed by the Katz Index, also covering a little more complex tasks of everyday life of an elderly individual, requiring greater physical and mental effort to perform such activities.

The evaluation of these activities can provide indicators of social functions that extend the themes explored by the ADL scales, for example, manage the household budget, using the phone, leave alone, shopping, preparing meals and household chores such as sweeping the house. Its score ranges from 5 to 15, 05 being considered totally dependent on IADL and 15 in total for the same independent.20 Knowing that these activities, especially house chores are influenced by the culture and traditions of each region, and is considered a factor that does not make it appropriate scale alone to assess the functional capacity of the elderly.22

However, the literature shows the BARTHEL instrument as the most used and the most reliable due to the consistent validity that its results proffer to researchers. Though, the same has not yet been adapted to the standards of the Brazilian elderly, which may have led to the low use of this instrument in the analyzed studies.

The AVD assessment tool, BARTHEL, evaluates, above all, basic activities of daily living. Similar to Katz, the BARTHEL, evaluates the individual's ability to feed themselves, perform tasks of personal hygiene, such as bathing and shaving. What differs essentially from the Katz Index is the presence of a score that ranges from zero to 100, being zero total dependent and 100 total independent.20

As you can see in Table 1, the data collected showed that there is a discrete relationship between the institutionalization and development of functional disabilities in already dependent elderly and an improvement of the physical condition of the independent elderly. However, a study says that the way in which many ILPIs are organized does not allow the internal individual to have him/her own identity, much less autonomy and are subjected to social deprivation regime that is imposed by a team of caregivers assisting in pre times defined, allowing us to conclude that the institutionalization process hurts the Elderly Statute, which aims to ensure their autonomy.24

Other surveys also highlight that social deprivation and loss of autonomy that the elderly suffer from institutionalization tend to cause physical and psychological changes, and the development of functional disabilities by the fact that many ILPIs do not seek to meet individual elderly needs institutionalized.24

These institutions have a dual function, to assist the elderly in health, meeting the demands and needs that this population offers, promoting their autonomy and preserving their independence, and social sphere not allowing the breakdown of family ties.15

However, many long-stay institutions do not perform occupational activities during the day to day of the elderly, causing them to restrict the less demanding activities that require less effort, encouraging a sedentary lifestyle which may be compounded with increasing age, causing loss physical fitness and commitment of its functional capacity.9

It is also essential to develop prospective studies in order to identify the occurrence of functional disability in the elderly after his admission in long-stay institutions to the implementation of a focused assistance in maintaining the autonomy and the reduction of disabilities that then culminate in independent living for this population.

CONCLUSION

This research sought to identify the relationship between institutionalization and functional capacity. However, it was not possible to verify the existence of the influence of these factors and the independent elderly, but only a slight expansion of disability in elderly dependents. This fact can be understood by the proposed objectives and the methodological aspects used to develop these studies, which were not intended to conduct this relationship, but only describe the functional capacity of institutionalized elderly and, therefore, most did not use prospective studies or case-control.

From this analysis, it became evident the need for research that seeks to identify the relationship between these factors given that some studies have reported evidence of this relationship. Thus, it is essential to the development of studies that point the causative determinants of functional disability in the elderly after its institutionalization, because as we have seen, the demographic transition has been gradual and fast. Therefore, it is necessary to recognize these gaps in order to plan quality care to hospitalized elderly people in long-stay institutions.

In this perspective, it is suggested that managers of ILPIs and health professionals seek assessment strategies and monitoring the functional capacity of the elderly since its admission to the institution, in order to individualize and direct the activities and to reduce the possible damage caused by physical disabilities to provide an active aging of the hospitalized elderly in these institutions.
REFERENCES