ANÁLISIS CONCEPTUAL DE INCAPACIDAD FUNCIONAL EN EL ANCIANO

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ABSTRACT

Objective: to develop the analysis of the concept of functional disability in the elderly, according to the model of Walker and Avant. Method: documentary research, carried out from the analysis of 30 articles, written in Portuguese and English, in the period from 2005 to 2011, localizados by meio de busca eletrónica, no site da Biblioteca Virtual em Saúde (BVS), nas bases de dados LILACS (Literatura Latinoamericana e do Caribe en Ciências da Saúde) e SciELO (Scientific Electronic Library Online), using the descriptors Elderly and Functional Disability; Aging and Functional Disability and Aging and Dependence and related terms in the English language: Elderly and Functional Disability; Aging and Functional Disability; Elderly and Dependence and its terms correlatos na língua inglesa: Elderly and Functional Disability; Aging and Functional Disability; Elderly and Dependence. The analysis revealed that the concept of functional disability in the elderly is used widely in the health field. Due to the attributes of the concept, we verified that: difficulty or inability in carrying out basic and instrumental activities of daily life, changes in the performance of social roles expected for the individual and changes in mobility. The antecedents or determinants of the concept include: advanced age, chronic diseases, cognitive and sensory deficit, physiological changes / functional aging, depression, negative self-perception of the health status, social support deficits, low socioeconomic status, lifestyle and health-related falls. The consequences of functional disability in the elderly are: continuing need for help from others, loss of quality of life, pressure ulcers, urinary incontinence, increased rates of hospitalization and institutionalization and hastening of death. Conclusion: the analysis aplicated has enabled the development of the following definition for functional disability in the elderly: difficulty or inability in performing basic and instrumental activities of daily life, mobility and social activities related to biopsychosocial factors, resulting in addiction and prejudice in state of health and quality of life. Descriptors: elderly; functional disability; nursing.

RESUMEN

Objetivo: desarrollar análisis del concepto incapacidad funcional en el anciano, según el modelo de Walker e Avant. Método: investigación documental realizada a partir del análisis de 30 artículos, escritos en portugués e inglés desde 2005 a 2011 localizados por medio de búsqueda electrónica en el sitio de la Biblioteca Virtual de Salud (BVS), en las bases de datos LILACS (Literatura Latinoamericana y del Caribe en Ciencias de la Salud) y SciELO (Scientific Electronic Library Online), empleando los descriptores Anciano y Incapacidad Funcional; Envejecimiento y Incapacidad Funcional y Anciano y Dependencia y sus términos correlativos en lengua inglesa: Elderly and Functional Disability; Aging and Functional Disability; Elderly and Dependence. El análisis permitió identificar que el concepto incapacidad funcional en el anciano se utiliza a menudo en el campo de la salud. Respecto a los atributos del concepto, se apreció susceptibilidad a la falta o incapacidad en la realización de las actividades básicas e instrumentales de la vida diaria, alteraciones en el desempeño de roles sociales esperados para el individuo y alteraciones en la movilidad. Los antecedentes o determinantes del concepto comprenden: edad avanzada, enfermedades crónicas, déficit cognitivo y sensorial, alteraciones fisiológicas/ envejecimiento, déficit de soporte social, bajo nivel socioeconómico, estilo de vida relacionado a salud y enfermedades. Las consecuencias de incapacidad funcional en el anciano son: necesidad continua de ayuda de otros, prejuicio en la calidad de vida, úlceras por presión, frecuencia aumentada de egresos institucionalizados y aceleración de la muerte. Conclusión: el análisis emprendido permitió elaborar la siguiente definición para incapacidad funcional en el anciano: dificultad o incapacidad en el desempeño de actividades básicas e instrumentales de la vida diaria, alteraciones en el desempeño de roles sociales esperados para el individuo y alteraciones en la movilidad. Los antecedentes o determinantes del concepto comprenden: edad avanzada, enfermedades crónicas, déficit cognitivo y sensorial, alteraciones fisiológicas/imposibilidad de realizar las actividades básicas e instrumentales de la vida diaria, alteraciones en el desempeño de roles sociales esperados para el individuo y alteraciones en la movilidad. Los antecedentes o determinantes del concepto comprenden: edad avanzada, enfermedades crónicas, déficit cognitivo y sensorial, alteraciones fisiológicas/ envejecimiento, auto-percepción negativa del estado de salud y caídas. Las consecuencias de la incapacidad funcional en el anciano son: necesidad continua de auxilio ajeno, prejuicio en la calidad de vida, úlceras por presión, incontinencia urinaria, aumento del índice de hospitalización y de institucionalización y anticipación de la muerte. Conclusión: el análisis emprendido permitió elaborar la siguiente definición para incapacidad funcional en el anciano: dificultad o torpeza en el desempeño de actividades básicas e instrumentales de la vida diaria, acomodo de las actividades sociales, relacionadas con factores bio-psicosociales, que producen dependencia y perjuicio en el estado de salud y en la calidad de vida. Descriptores: anciano; incapacidad funcional; enfermería.

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The aging population is a phenomenon that occurs on the world stage. Developing countries like Brazil live with the growing change in the health profile of the population due to increased longevity and the increased prevalence of chronic diseases that are associated with changes related to physiological aging process, have led to the emergence conditions that interfere substantially in the ability of the elderly to perform activities of daily living⁴, which makes this concept relevant to health care.⁵

It is observed that the health of the elderly has not been evaluated most simply by the presence or absence of disease but also by the degree of preservation of its functionality in its multiple aspects⁶. The reasons for this are because of two people with the same disease may have different levels of functionality, and two with the same functional capacity do not have the same health condition and use the disease as the only indicator to assess the state of health.⁷

In this sense, the maintenance of functional capacity is an important factor for the independence and quality of life elderly⁸. In this context, the concept of (in) functional capacity emerges as new health paradigm particularly important for the elderly, since aging while retaining all the functions does not mean problem for the individual, family or society. The difficulties which manifest themselves at this stage of life is given, when there is deterioration in the functions of the individual, that affects your quality of life.⁹

The concept of functional disability in the elderly, has prompted health professionals, and the amount of studies addressing this issue has increased significantly, due to its importance for the formulation of new concepts used in the health field, such as "active life expectancy". Nevertheless, there are still difficulties regarding their understanding, and this affects its operation.

In an attempt to define this phenomenon, some scholars have used terminology such as disability, functional limitation, impairment, handicap, sometimes interchangeably, sometimes used differently, however connected to the concept in question. Similarly, differences exist with regard to the inclusion of multiple dimensions of the phenomenon (physical, cognitive, emotional and social) for determination of the elderly with functional disability, making necessary a more detailed analysis of the concept in order to clarify its meaning and its essential elements.

The method of concept analysis process is to discover, explore and understand concepts, in order to identify gaps in knowledge, determine the need for conceptual clarification and refinement, to develop a concept and make it clear that one appears to have multiple significados⁷. From this perspective, the proposition to analyze the concept disability in the elderly is the need to clarify its meaning, specifically its attributes, antecedents and consequences, so that will clarify difficulties in terms of its conceptualization by those who deal with this phenomenon.

**OBJECTIVE**

- Analyze the concept of functional disability in the elderly, according to Walker and Avant model.

**METHOD**

This study followed the design of documentary research, using methodological steps of the analysis technique conceito8: selection of the concept, defining the purpose of analysis, identification of possible uses of the concept, determination of critical or essential attributes and background events, and consequences of the concept.

Remember that explore the use of a concept means to identify the "state of the art" of your application, which is endorsed by the education/knowledge and the socialization of knowledge among those who deal with the phenomenon, which influences their variability in time and sociocultural context. Attributes are characteristics that act as elements of other differential diagnoses similar or related concepts, which should be applicable to any situation in which the concept is used. The antecedents and consequences of the concept are, respectively, the incidents preceding its manifestation and the situations that arise or result from your event.

Scored these descriptions, it is worth mentioning that, after having selected the concept to be analyzed and defining the purpose of analysis, as stated earlier, is set, then the development of other phases of the study, based on the literature of the field health to discuss its nature. To this end, we identified articles published online, written in Portuguese and English, in the period 2005 to 2011, located by searching electronic site of...
the Virtual Health Library (VHL) in the databases LILACS (Latin American and Caribbean Health Sciences) and SciELO (Scientific Electronic Library Online), using the descriptors Aged and Disability, Ageing and Disability and Aging and Addiction and related terms in English: Elderly and functional Disability; Aging Functional and Disability; Elderly and Dependence.

In the composition of literary corpus, we used the following inclusion criteria: availability of the full article for free on the Internet, since reading the summary would be insufficient to support the technique of concept analysis, and which embraced elements that would aid the analysis the concept (attributes, antecedents and / or consequences). Using these criteria, we identified 63 publications in the data sources mentioned herein. After the acquisition, each paper was submitted for consideration to the initial reading of the content and to confirm that it contained elements which were the basis for the conceptual analysis desired. Resulting from this screening, 33 were excluded from the studies, they do not present sufficient evidence for a process analysis of the concept in question. Thus, the study sample was composed of 30 scientific articles.

The sample set, we proceeded to a second reading of articles, now carefully and objectified, especially through an inductive process, the fragments or units of analysis - phrases, themes, phrases - paragraphs - which correspond to elements constituents of the concept functional capacity in the elderly. These units were recorded in the synoptic table apart, and subsequently revised, so paired among authors, a trial to ensure consensus among them on the empirical material, thus reducing bias research. Done this procedure, delimited the categories of antecedents, attributes and consequences of the concept in question, identified by the literature. In this analytical process, due to the lack of a gold standard that could be used were (arbitrarily) considered essential elements of the concept those reported most frequently in the studies examined.

### RESULTS

#### Using the concept

In the analysis of the literature, we found that functional disability in the elderly is a concept in several disciplines in the field of health - Nursing, Medicine, Physical Education, Physiotherapy and Psychology - nominally define the phenomenon, as specified in Table 1.

<table>
<thead>
<tr>
<th>Area of knowledge</th>
<th>Definitions of functional disability in the elderly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing</td>
<td>Difficulty performing certain activities of everyday life, because of a disability. Inability to maintain physical and mental skills necessary for an independent life and autonomous.</td>
</tr>
<tr>
<td>Medicine</td>
<td>Condition resulting from the interaction between a dysfunction presented by the elderly (organic or body structure) and environmental factors, which affect the performance of the activities and social participation.</td>
</tr>
<tr>
<td>Physical Education</td>
<td>Inability to maintain physical and mental skills necessary for an independent life. Inefficiency of the elderly in match, independently, the physical demands of daily life, from the basic activities to more complex actions.</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>Inability of the elderly perform autonomously, those activities considered essential to their survival, as well as the maintenance of their social relations.</td>
</tr>
<tr>
<td>Psychology</td>
<td>Problems in social functioning and performance of normal activities of daily living and socially defined roles in a given physical environment and socio-cultural. Inability to perform Adaptive tasks or needed for independent living in the community.</td>
</tr>
</tbody>
</table>

Figure 1. Functional disability in the elderly, as defined in the field of health disciplines. Source: Direct Research, 2011.

#### The essential elements of the concept

Within this study, the essential elements of functional disability in the elderly were identified by guiding questions proposed by Walker and Avant8. Considering this, to identify the essential attributes of the concept in the analyzed articles, broke up the following questions: What characteristics / attributes mentioned by the author? Idea that the author discusses the functional disability in the elderly? To outline the background to the concept, asked yourself: What events contribute to the onset of disability in the elderly? As for the apprehension of the consequences, the question was this: What happens after we see the functional disability in the elderly? These findings are shown in Table 1.
Duarte MCS, Loureiro LSN, Fernandes MGM et al.  
Functional disability in the elderly’s conceptual...

### Table 1. Attributes, antecedents and consequences of disability in the elderly. Source: Direct Research, 2011.

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Nº of authors</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty or inability in performing basic activities of daily living</td>
<td>28</td>
<td>93.3</td>
</tr>
<tr>
<td>Difficulty or inability of instrumental activities of daily living</td>
<td>25</td>
<td>83.3</td>
</tr>
<tr>
<td>Changes in social roles expected performance for the individual</td>
<td>21</td>
<td>70.0</td>
</tr>
<tr>
<td>Changes in mobility</td>
<td>19</td>
<td>63.3</td>
</tr>
<tr>
<td><strong>Background</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced age</td>
<td>26</td>
<td>86.3</td>
</tr>
<tr>
<td>Chronic diseases</td>
<td>25</td>
<td>83.3</td>
</tr>
<tr>
<td>Sensory and cognitive impairment</td>
<td>23</td>
<td>76.3</td>
</tr>
<tr>
<td>Physiological changes/functional aging</td>
<td>21</td>
<td>70.0</td>
</tr>
<tr>
<td>Depression</td>
<td>19</td>
<td>63.3</td>
</tr>
<tr>
<td>Negative self-perception of health state</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>Deficit of social support</td>
<td>14</td>
<td>46.6</td>
</tr>
<tr>
<td>Low socioeconomic status</td>
<td>14</td>
<td>46.6</td>
</tr>
<tr>
<td>Health-related lifestyle</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>Falls</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Consequences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuing need for helping others</td>
<td>27</td>
<td>90.0</td>
</tr>
<tr>
<td>Impairment in quality of life</td>
<td>22</td>
<td>73.3</td>
</tr>
<tr>
<td>Pressure ulcer</td>
<td>19</td>
<td>63.3</td>
</tr>
<tr>
<td>Functional incontinence</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>Index increased Institutionalization</td>
<td>14</td>
<td>46.6</td>
</tr>
<tr>
<td>Increase in the rate of hospitalization</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>Anticipation of death</td>
<td>11</td>
<td>36.6</td>
</tr>
</tbody>
</table>

### DISCUSSION

In analyzing the definitions of disability in the elderly, expressed in the table, it appears that the concept is used in different disciplines in the health field, in a manner not conflicting, to express inability or difficulty performing basic or more complex tasks necessary for life independence and social participation. This finding holds line with the description of function and disability presented by the International Classification of Functioning, Disability and Health. In this classification, the feature includes all body functions, tasks or actions, while disability encompasses impairments, limiting capacity or restriction in the performance of activities. It should be noted that the failure is related to functional decline.

The essential elements of functional disability in the elderly, Table 1 sets out its attributes, determinants and consequences of events. The attributes include indicators empirical, and thus, provide the operational concept. They are represented by difficulty or inability in performing basic activities of daily living, essential for self-care, difficulty or inability to perform instrumental activities of daily living necessary for independent adaptation to the environment, changes in the performance of social roles expected for the individual and changes in mobility. These attributes of functional disability in general, are measured by scales of dependence or degree of assistance to carry out the activities, using scales that assess the degree of difficulty to accomplish the task, which incorporates certain level of subjectivity, and mobility. Such indicators are considered valid and reliable by the scientific community.

Furthermore, considering these attributes of functional disability in the elderly, it is worth mentioning that the phenomenon is a process that involves various aspects of life and health of the elderly, which gives a multidimensional character, determined by physical / biological and psychosocial. In this analysis, we found that the process of functional disability in the elderly occurs through a tangle of factors, such as advanced age, chronic diseases, cognitive and sensory, physiological / functional aging, depression, negative self-perception of health status, deficit of social support, low socioeconomic status, lifestyle and health-related falls. Bearing in mind the relationship between the history of disability in the elderly, the analysis of these events considered, as far as possible, this bond.

Individuals with advanced age are more prone to failure. Several studies have shown that age predicts, regardless of other factors, functional disability. This follows from the fact that the older elderly, generally, more likely to present imbalance of its homeostasis upon the occurrence of acute events, physical, social or psychological. As age advances, there is greater acceleration in the physiological process of aging and change in the pattern of morbidity, with an increase in chronic diseases and their complications. Nevertheless, although “the oldest old” have predisposed to highlight disability, it can not be characterized as an inevitable result of aging. There are elderly people who, even with older age, do not report difficulty in performing daily activities.

Among chronic conditions, which represent the greatest risk for functional disability are diabetes, cardiovascular diseases and, in
particular the processes that evolve with nociceptive and / or loss of function, such as arthritis and stroke. It is worth noting that as important as health status, measured by objective assessments, as a determinant of functional disability, is the perceived health status. Seniors who negatively evaluate their health status are at increased risk of morbidity and mortality compared with those who rate their health as good or excellent. Considering also the morbidity of disability as a predisposing factor, there is depression, which suggests a possible component of the psychosocial or psychological phenomenon.

Also corroborate the occurrence of disability in the elderly the loss of vision and hearing acuity, as well as cognitive deficits. These losses significantly affect the communication process and interfere with the individual’s relationship with others, whether in or outside the family environment and, in turn, the emotional well-being of the elderly and social, directly affecting its independence.

Behavioral and economic aspects also influence the functional capacity of the elderly, such as lifestyle related to health, low education and income. Among these issues stand out as smoking habits, alcohol consumption and physical inactivity, for contributing to the emergence of disabling chronic diseases. Regular physical activity has been considered as a way to maintain physical fitness among the elderly, for slow or reverse the loss of muscle mass, especially in women, because in the context of aging, they are more likely to show lower body mass index muscle-related reduction in testosterone levels and reduced secretion of growth hormone, making them more susceptible to functional disability.

Similarly, different studies have shown that low education or illiteracy constitute determinants of functional disability, as these variables are involved in cognitive impairments, probably because the acquisition of knowledge related to the increase in synaptic density in neocortical association, giving cognitive reserve, delaying the onset of clinical manifestations of Alzheimer's dementia. In addition, elderly patients with better-educated tend to hold better psychological and social resources to cope with the losses produced by aging.

In addressing the determinants of functional disability in the elderly, it can be emphasized also the importance of falls as they may trigger either significant physical injury, as fracture of the femur, with direct impact on the functionality of the elderly, such as fear of falling, taking to submit lower walking speed, and low self-confidence in performing basic and instrumental activities of daily living.

With regard to the consequences of disability in the elderly include: continuing need for help from others, loss of quality of life, pressure ulcers, urinary function, increased rates of hospitalization and institutionalization and hastening death. These issues negatively affect both the elderly and care systems, formal (increased cost and complexity of care) and informal or family (determine, especially the caregiver burden).

Finally, based on analysis of the attributes, antecedents and consequences of the term disability in the elderly, carried throughout this study, we elaborated the following conceptual definition of the phenomenon, difficulty or inability of the elderly in performing basic and instrumental activities of daily living, mobility and social activities related to psychosocial factors that result in dependence and impaired health status and quality of life of the elderly.

CONCLUSION

Although the conceptual model of analysis used in this study is simple and easy to apply, it should be emphasized that the fact that guide the conceptual analysis only through the literature implies the need to expand this approach. For this, it is recommended to use a model that includes the integrated use of data by reviewing the literature and field data, for example, the hybrid model Development Concepts, due to its importance to increase the understanding of the antecedents, attributes and consequences of the phenomenon, considering the dynamic and changes as the context of the concept is expressed.

In the care of geriatric nursing, we must address all elements involved in disability in the elderly. The background should support preventive care, whereas the attributes favor the early diagnosis and, in turn, treatment and rehabilitation of the elderly, may assist professionals in public policy development and implementation of programs of multidisciplinary care focused on the treatment of phenomenon in question, allowing also the adequacy of services to new demands related to aging.

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