



QUALITY OF LIFE OF ELDERLY PEOPLE WITH IMPAIRED PHYSICAL MOBILITY

QUALIDADE DE VIDA DE IDOSOS COM MOBILIDADE FÍSICA PREJUDICADA

CALIDAD DE VIDA DE ANCIANOS CON MOVILIDAD FÍSICA PERJUDICADA

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This is an integrative review, which aimed at identifying the available evidence about the knowledge on the quality of life of the elderly with impaired physical mobility between 2001 and 2011. Data collection happened in the LILACS, MEDLINE and COCHRANE databases. After analytical reading of works, we selected 16 articles for analysis in two thematic categories: quality of life and personal satisfaction, and quality of life and functional capacity. The mobility limitations, pain and emotional well-being in the elderly can be attributed to chronic conditions, negatively affecting the quality of life; and the elderly who report a decreased quality of life, are those with a higher degree of dependence, influencing social participation and well-being. We suggest the nurse's performance in research on interventions that allow improving the quality of life of the elderly with impaired physical mobility.

Descriptors: Quality of Life; Aged; Mobility Limitation.

Trata-se de uma revisão integrativa, com o objetivo de identificar as evidências disponíveis acerca do conhecimento sobre a qualidade de vida de idosos com mobilidade física prejudicada, entre 2001 e 2011. Os dados foram coletados nas bases de dados LILACS, MEDLINE e COCHRANE. Após leitura analítica das obras, foram selecionados 16 artigos para análise em duas categorias temáticas: qualidade de vida e satisfação pessoal, e qualidade de vida e capacidade funcional. As limitações da mobilidade, dor e bem-estar emocional nos idosos podem ser atribuídas às condições crônicas, afetando negativamente a qualidade de vida deles; e também, os idosos que relatam uma piora na qualidade de vida, são os que apresentam maior grau de dependência, influenciando na participação social e bem-estar. Sugere-se a atuação do enfermeiro em pesquisas de intervenções, que possibilitem melhorar a qualidade de vida do idoso com mobilidade física prejudicada.

Descritores: Qualidade de Vida; Idoso; Limitação da Mobilidade.

Se trata de una revisión integradora, con objetivo de identificar evidencias disponibles acerca del conocimiento sobre calidad de vida de ancianos con movilidad física perjudicada, entre 2001 y 2011. Los datos fueron recolectados en las bases de datos LILACS, MEDLINE y Cochrane. Después de lectura analítica de las obras, se seleccionaron 16 artículos para análisis en dos categorías temáticas: calidad de vida y satisfacción personal, y calidad de vida y capacidad funcional. Limitaciones de la movilidad, dolor y bienestar emocional de ancianos pueden ser atribuidas a enfermedades crónicas, que afectan negativamente la calidad de vida de ellos; y también, los ancianos que reportan baja calidad de vida, son los que tienen mayor grado de dependencia, influyendo en la participación social y bienestar. Se sugiere la actuación del enfermero en investigaciones de intervenciones que permitan mejorar la calidad de vida de ancianos con movilidad física perjudicada.

Descritores: Calidad de vida; Anciano; Limitación de la Movilidad.

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INTRODUCTION

The elderly population has increased tremendously in recent years. According to Brazilian statistics (2008), the rate of aging points to changes in the age structure of the Brazilian population. In 2008, for every 100 children aged 0 to 14 years there were 24.7 elderly of 65 years or older. In 2050, there will be a different situation and for every 100 children aged 0 to 14 years there will be 172.7 elderly⁽¹⁾.

The loss of physical mobility relates to the physiological changes of age, e.g. sarcopenia, which means the loss of muscle mass and strength⁽²⁾, such a situation can lead to a higher dependency ratio of the elderly.

With aging, several physiological changes occur, many resulting from chronic diseases. The chronic conditions associated with this process, negatively affect mobility such as walking, driving, shopping, or exercising⁽³⁾, often limiting the elderly in performing daily activities.

This negative interference in mobility, which may be due to the physiological aspects of age, is diagnosed in nursing as impaired physical mobility, according to the North American Nursing Diagnosis Association (NANDA) classification system⁽⁴⁾.

The nursing diagnosis "Impaired physical mobility is defined as a state in which the individual experiences, or is at risk of experiencing, limitation of physical movement but is not immobile"^(5:415). This limitation of physical movement causes many difficulties in performing certain activities, which can lead the elderly to feel dependent and have lower self-esteem.

Usually, these limitations result in difficulty of performing daily tasks, also described as Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL). This kind of difficulty or inability causes the elderly to become dependent on the aid of others for simple tasks such as leaving home alone and perform self-care tasks like bathing or going to the bathroom

alone. Becoming dependent makes the elderly feel unappreciated, which can result in the development of psychological problems⁽⁶⁾, compromising their quality of life (QOL). This consists of an "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns"⁽⁷⁾. In this context, the individual's subjective is valued.

Events associated with physiological losses resulting from the aging process can compromise the QOL of the elderly. The impaired functional capacity of the elderly has important implications in their lives, since the inability causes more vulnerability and dependency, contributing to decreased well-being and quality of life⁽⁸⁻⁹⁾.

Considering that the number of elderly has grown in recent years and mobility limitation can be present due to the physiological changes caused by aging, the overall purpose of the present study was to search and evaluate evidence available in the literature on scientific knowledge related to the QOL of the elderly with impaired physical mobility.

As guiding question for the study, we used: "What is the scientific knowledge related to the QOL of elderly people with impaired physical mobility"?

The specific objectives of the study were to characterize the scientific production regarding the methodological characteristics and the aspects related to QOL presented by the elderly with impaired physical mobility, and identify the instruments used to assess the QOL.

METHOD

For the research method, we used the integrative review (IR) of the literature, considered a strategy that aims at gathering and synthesizing research findings on a specific topic or issue in a systematic and orderly way, thereby contributing to a deeper understanding of the topic investigated⁽¹⁰⁾. This method is able to create a

source of current knowledge about a particular problem and determine if the knowledge is valid to be applied in practice⁽¹¹⁾.

For the development of this IR, we covered the following steps: identifying the topic and selecting the hypothesis; establishing inclusion and exclusion criteria of studies; categorizing the studies; assessing the studies included in the integrative review; interpretation of results; and synthesis of knowledge of main results evidenced through the analysis of the articles included⁽¹⁰⁾.

The inclusion criteria for selecting articles were: articles with abstract available that approach the QOL of elderly patients with impaired physical mobility; published from 2001 to 2011; in Portuguese, English and Spanish; indexed in LILACS, MEDLINE and COCHRANE databases. For the exclusion criteria, we used: studies related to the methodological research, such as creation and/or validation of QOL instruments.

The survey of studies took place from November 2011 to January 2012, simultaneously in the three databases. By crossing the descriptors: Quality of Life, Aged, and Mobility Limitation, we found a total of 153 articles, of which 15 appeared more than once in the databases, leaving 138 studies, which after reading the abstracts and applying the inclusion criteria, we selected 40 articles for full reading. After reading these articles, we selected 16, which composed the sample of this IR. We examined the studies through an instrument developed and validated⁽¹²⁾ that allowed to identify the publications, their characterization on the criteria for assessing QOL and on the methodology, considering the research design of the articles.

RESULTS

16 articles composed the IR. After a coherent analysis, we subdivided the topics approached into two

categories, namely: Quality of life and functional capacity (11 articles; 68.75%) and Quality of life and personal satisfaction (5 articles; 31.25%).

Regarding the characterization of the studies, as regards to the year of publication, in 2003, 2005, 2006 and 2008 there was one article published each year, in 2009 there were two articles published, in 2007 and 2011 three articles, and in 2010 four articles. As for the professional training of the main author, three articles were published by nurses, one by physiotherapists, one by psychologists, two by physicians, and in nine articles, it was not possible to identify the author's formation. According to the home institution of the main authors, all were associated with universities.

With regard to the language, ten publications were in English and six in Portuguese. Regarding the host country of the study, five were developed in Brazil, three in Turkey, two in Sweden, two in the USA, two in Canada, one in Portugal, one in Australia, and one in Nigeria. As for the journal field, we detected nine in the medical field, two in Physiotherapy, one in Psychology, three in Nursing, and two in interdisciplinary journal of public health.

Regarding the use of the concept of Quality of Life, only five (29.4%) articles used this concept, where four articles define general quality of life and two define health-related quality of life. The other articles assess QOL and mention considering important to measure it, but did not use a definition. As for the instruments used, of the 16 articles analyzed, five justified the choice of the instruments. Among the 16 articles, 10 used validated instruments. In the others, we did not find any reference that the instruments have been validated for study. A total of 22 instruments were used in the articles analyzed. The most used was the Medical Outcomes Study Short-Form 36 (SF-36) (four times), while the others were used one or two times as shown in Figure 1.

Instruments
EASY care (Elderly Assessment System) ⁽¹³⁾
Flanagan Quality of Life Scale ⁽¹⁴⁾
Functional independence in daily life (BI) ⁽¹⁵⁾
Geriatric Depression Scale (GDS) ⁽¹⁶⁾
Health Utility Index Mark 3 (HUI3) ⁽¹⁷⁾
International Physical Activity Questionnaire(IPAQ) ⁽¹⁴⁾
Kahoku Aging Longitudinal Study Scale (KALS) ⁽¹⁶⁾
Manchester Foot Pain and Disability Index (MFPDI) ⁽¹⁸⁾
Medical Outcomes Study Short-Form 12 (SF-12) ⁽¹⁹⁾
Medical Outcomes Study Short-Form 36 (SF-36) ⁽²⁰⁻²³⁾
Nottingham Health Profile (NHP) ⁽¹⁵⁾
Profile of Individual Lifestyle – Nahas ⁽¹⁴⁾
Quality of Well-being Scale– Self-administered (QWB-SA) ⁽²⁴⁾
Modified Baecke Questionnaire for Older Adults (MBQ) ⁽²⁵⁾
Questionnaire on individual perception of QOL ⁽²⁶⁾
Satisfaction With Life Scale (SWLS) ⁽²⁷⁾
Timed Up &Go (TUG) ⁽¹⁵⁻¹⁶⁾
Visual Analogue Scales (VASs) ⁽¹⁶⁾
WHOQOL-OLD ⁽²⁵⁾
Womac – Western Ontario and MacMaster Universities Osteoarthritis Index ⁽²⁰⁻²¹⁾
World Health Organization Quality of Life (WHOQOL-100) ⁽¹⁴⁾
World Health Organization Quality of Life abbreviated version (WHOQOL-BREF) ^(16,28)

Figure 1 - Quality of life instruments used in the articles analyzed

Note: After each instrument are referenced the studies that used them.

The Flanagan Quality of Life Scale, Visual Analogue Scales, Nottingham Health Profile, Medical Outcomes Study Short-Form 12, Medical Outcomes Study Short-Form 36, Quality of Well-being Scale – Self-administered, World Health Organization Quality of Life (WHOQOL-100), and World Health Organization Quality of Life abbreviated version are general instruments and evaluate the physical, emotional, mental, social and functional roles and overall quality of life. The WHOQOL-

OLD and Elderly Assessment System instruments aim to characterize the quality of life and well-being of the elderly specifically. While the Questionnaire on individual perception of QOL⁽²⁶⁾ was developed based on Fleck’s work⁽²⁹⁾, which assesses the QOL of the elderly, as well as their well-being.

The other instruments assess specific issues. The Modified Baecke Questionnaire for Older Adults assesses the level of physical activity in three specific areas: tasks performed at home, sports, and leisure activities. The Health Utility Index Mark 3, used for the measurement of health outcomes, measures health attributes that represent limitations associated with hearing, vision, speech, cognition, mobility, dexterity, pain and emotional well-being. The Satisfaction with Life Scale estimates satisfaction with life. The Functional independence in daily life measures the physical independence in activities of daily living. The Manchester Foot Pain and Disability Index assess problems with their feet. The Timed Up & Go assesses functional mobility. The Geriatric Depression Scale measures the depression in the elderly. And Kahoku Aging Longitudinal Study Scale estimates the level of independence of the elderly for activities of daily living.

Figures 2 and 3 show the main functions or affected areas and synthesis of knowledge, according to the themes of the studies, and research designs.

Thematic category	Year and reference	Research design	Affected areas of QOL	Knowledge synthesis
Quality of life and personal satisfaction	2011 ⁽²⁸⁾ 2010 ⁽²⁷⁾ 2009 ⁽²⁶⁾ 2007 ⁽¹⁴⁾ 2003 ⁽¹³⁾ Assess QOL with physical and psychosocial aspects, such as level of physical activity, performing activities of daily living, well-being, social relations, including social support network.	Exploratory-descriptive study ^(13-14,27-28) Analytical cross-sectional study ⁽²⁶⁾	Emotional, social, physical and mental functions. Presented difficulty in physical mobility and thereby reported impairment in social participation.	They concluded that elderly people report being satisfied with their QOL and this was associated with situations related to “well-being”. The elderly who report a decreased QOL are those with a higher degree of dependence. Social participation is a factor that contributes to the quality of life of elderly and ensures well-being.

Figure 2 - Knowledge synthesis according to thematic category: Quality of Life and Personal Satisfaction

Thematic category	Year and reference	Research design	Affected areas of QOL	Knowledge synthesis
Quality of life and functional capacity	2011 ^(15,18) 2010 ^(21,23,25) 2009 ⁽¹⁶⁾ 2008 ⁽²⁰⁾ 2007 ^(17,24) 2006 ⁽¹⁹⁾ 2005 ⁽²²⁾ The studies correlated the decreased QOL of elderly patients with factors that influence the functional capacity, as well as chronic conditions that negatively affect physical mobility, also causing psychosocial problems for the elderly.	Analytical cross-sectional study ⁽²⁰⁾ Exploratory-descriptive study ^(15-16,18,22-23,25) Prospective-cohort study ^(17,21) Randomized clinical trial ^(19,24)	Physical function; global QOL and HRQOL Impaired physical function due to the chronic conditions associated with aging. Association of pain with functional limitations and depressive symptoms. Role performance, overall QOL.	The results indicate that the mobility limitations, pain, and emotional well-being in the elderly can be attributed to chronic conditions and negatively affect QOL.

Figure 3 - Knowledge synthesis according to thematic category: Quality of Life and Functional Capacity

DISCUSSION

The study showed that researches approaching the QOL of elderly people as regards to their physical mobility have been increasing since 2003. The increasing number of elderly and declining fertility rates have led to studies that portray the lives of the elderly, allowing not only longer lives, but also quality of life for this population.

We notice that only two articles used specific instruments to assess QOL of the elderly, namely the WHOQOL-OLD and the EASY care, which intend to characterize the quality of life and well-being of the elderly in particular. With aging, there are the peculiar physiological aging changes, and this makes the elderly people a population with specifics that must be treated with special attention. The quality of life is a health indicator, from this, it is important to use instruments that highlight the specifics of this age group, which may suggest interventions to improve the quality of life of the elderly population⁽³⁰⁾.

We observe that the contribution of studies describing the quality of life of the elderly regarding physical mobility, published in journals in the field of nursing is lower when compared to other areas. Nurses, as part of the interdisciplinary team, must be able to

treat the elderly population. They must have knowledge and develop skills that address the biological, psychosocial, cultural and spiritual characteristics of this population⁽³¹⁾.

As for the QOL assessment, the results revealed flaws in the concept, where only five of the 17 articles reviewed presented a definition for the term, which we also observed in another review study⁽³²⁾.

According to the research design, there was prevalence of descriptive studies, i.e., 16 (94.1%) quantitative research articles and one (5.9%) qualitative research article.

As to the themes presented in figure 2, in the category of QOL and Personal satisfaction, we identified that the affected areas were the emotional, social, physical and mental functions, and that they directly influence QOL. We already evidenced the importance of considering the functional capacity as impact factor on the quality of life of elderly people⁽⁸⁾. Furthermore, the quality of life in old age has been associated with issues of independence and autonomy, and the elderly dependency results from biological changes.

Regarding the category of QOL and Functional capacity, we verified that mobility limitations are caused

by physiological changes and pre-existing chronic conditions, negatively affecting the QOL. Such as in this review, studies conducted⁽³³⁻³⁴⁾ showed that, as regards to the physical area, as it occurs an increase in the number of functional disability, there is a decrease in the QOL score.

CONCLUSION

With this review, we identified that mostly medical professionals conducted studies that describe the health-related quality of life of elderly, concerning the physiological changes that lead to loss of physical mobility. Of the 17 studies included in this IR, four were from nursing professionals.

As knowledge gap, detected a lack of national scientific production and a scarce contribution of nurses. Thus, we recommend nurses to work in studies about psychosocial support interventions and physical limitations aid programs, which allow improving the QOL of elderly patients with impaired physical mobility.

Nurses can work in QO Lassessment studies in elderly people with physical mobility limitations through psychosocial support interventions to the individual and their family, including emotional, informational and instrumental support, and through programs that promote strategies that enable overcoming the physical condition of the elderly, so they feel satisfied with their HRQOL.

We believe that it is necessary to pay more attention on the training of future nurses, to ensure they have a holistic view in relation to physiological changes of the elderly, which represent a population more vulnerable to physical limitations and which requires special attention.

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COLLABORATIONS

Paula JM, Sawada NO, Nicolussi AC, Andrade CTAE and Andrade V contributed to the design, analysis, interpretation of data, drafting and final approval of the version to be published.

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