



Factors that interfere with quality of life after total hip arthroplasty

Fatores que interferem na qualidade de vida após artroplastia total de quadril

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Objective: to analyze in the scientific productions the factors that interfere with the quality of life of people submitted to total hip arthroplasty. **Methods:** this is an integrative review carried out in LILACS, CAPES, BDNF and PUBMED databases of articles published in Portuguese, English and Spanish available online. The sample consisted of 13 articles. **Results:** Pre-operative and post-operative educational actions by nursing professionals influence the return of activities of daily living. There is a predominance of research by nurses. **Conclusion:** total hip arthroplasty causes multiple restrictions and social isolation, reducing the quality of life of individuals, due to changes in functional independence and restriction of mobility. Educational actions of mobility guidelines, wound healing, pain control for family members and the health system user.

Descriptors: Quality of Life; Activities of Daily Living; Arthroplasty, Replacement, Hip; Nursing.

Objetivo: analisar nas produções científicas os fatores que interferem na qualidade de vida das pessoas submetidas à artroplastia total de quadril. **Métodos:** revisão integrativa realizada nas bases de dados da LILACS, CAPES, BDNF e PUBMED dos artigos publicados em português, inglês e espanhol disponíveis online. A amostra foi constituída de 13 artigos. **Resultados:** ações educativas no pré e pós-operatório pelos profissionais de enfermagem influenciam no retorno das atividades de vida diária. Há o predomínio de pesquisas por enfermeiros. **Conclusão:** a artroplastia total de quadril causa múltiplas restrições e isolamento social, reduz à qualidade de vida dos indivíduos, devidos às alterações na independência funcional e restrição da mobilidade. Ações educativas de orientações quanto à mobilidade, cicatrização da ferida operatória, controle da dor para familiares e o do usuário do sistema de saúde.

Descritores: Qualidade de Vida; Atividades Cotidianas; Artroplastia de Quadril; Enfermagem.

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Introduction

Conceptualizing quality of life is not the easiest task, as it analyzes the individual's self-perception in their socio-cultural life context, and their yearnings, perspectives and restlessness. Quality of life is directly related to health, leisure, personal contentment, style, level of functional independence, social relations and habit of life⁽¹⁾.

Health-related quality of life may present several modifications, influencing the recovery of the human being. The physical limitations caused by complications in the hip joint generate physical restraints, inactivity, pain and personal dissatisfaction⁽²⁻³⁾.

Due to the increase in population life expectancy, the incidence of joint replacement procedures has been increasing. They are successful procedures, obtaining positive results, such as elevation of physical indices, pain relief, improvement of functional capacity, return of daily activities and physical rehabilitation⁽⁴⁻⁵⁾.

Total hip arthroplasty is the surgical act of changing the hip joint by a prosthesis, aiming at the recovery of the movements, indicating in the primary and secondary articular degenerations of the hip. The diseases cause the impaired mobility of the social system patient, to improve the functional status, to reduce the morbidity associated with immobility, to improve the quality of life, to restore the level of physical activity and to relieve pain as a surgical goal. Thus, having a good clinical result of the surgical procedure⁽⁶⁻⁹⁾.

Surgery has the goal of totally or partially replacing the hip joint fractured or with changes, by non-organic materials called prosthetic implants⁽¹⁰⁾.

Research shows that around the world, about 400,000 hip arthroplasty surgical procedures are performed. The data stipulate that annual spending in the United States is US\$ 15 billion. It is estimated that in 2026, the annual expense in Brazil with surgical interventions will be approximately R\$ 572,000⁽¹⁰⁻¹¹⁾.

As described by the Department of Informatics research of the unified health system on January

1, 2016, from October 2014 to October 2015, 25,351 hospital admissions authorizations were approved in Brazil for hip arthroplasty of the types: partial nonconventional of the hip, total conversion of the hip, primary cemented and uncemented/hybrid, re-view or reconstruction of the hip with expenses of R\$ 95,634,290.84. It was verified that in the same period in Rio de Janeiro, 3,048 hospitalizations were approved, with hospital expenses in procedure in the amount of R\$ 11,715,210.03⁽¹²⁾. It is verified the need for interventions and guidelines of professionals qualified for the rehabilitation of the people who undergo this surgery.

A casco-control survey conducted in Sweden found that the multidisciplinary team meeting with the patients in the preoperative period reduced the length of hospital stay. Another randomized study in Brazil described guidelines on posture, operative limb positioning, prevention, thrombosis detection, mobility and orientation of prosthesis care after discharge, evidencing the effectiveness of the information⁽¹³⁻¹⁴⁾.

Reflecting the definition of quality of life and the changes caused by the surgical procedure based on the aforementioned, it is the responsibility of the nurse acting as facilitator and mediator of the intervention besides instructing on the factors that involve the evolution of the reestablishment of daily life activities. Physical limitations, caused by total hip arthroplasty cause dependence on the activities of daily living such as bathing, dressing, lying down, feeding, climbing stairs and combing^(6,15).

Through their interdisciplinary training, the nurse seeks to reduce the level of anxiety, clarifying the doubts of the patients of the health system and family, transmitting the general state, within the scope of nursing, eliminating the anxieties, apprehension, and fears. It also undertakes the planning of nursing care in a holistic way, being indispensable, seeking the recovery and the return of the functional independence^(3,15).

Bibliographical research on the quality of life in total hip arthroplasty, as well as variables that signifi-

cantly interfere, may contribute to the understanding of the evolutionary process of hip joint changes, enabling the development of interventions in the health-disease process.

Given this context, this study aimed to analyze in the scientific productions the factors that interfere with the quality of life of people submitted to total hip arthroplasty.

Methods

This study is an Integrative Review, defined as a methodology that provides the synthesis of knowledge and the incorporation of the applicability of results of significant studies in the practice of care. It allows the inclusion of experimental and non-experimental studies, with the objective of contributing to the knowledge of a specific phenomenon⁽¹⁶⁾. It is understood as the state of knowledge, the mapping of trends and dimensions.

The stages of the development of the Integrative Review were: problem formulation, identification of descriptors, determination of inclusion and exclusion criteria, the establishment of the sample, data collection, data evaluation, analysis, data interpretation and data dissemination⁽¹⁷⁾.

This research was carried out with the purpose of obtaining answers to the following questions: what factors interfere with the quality of life of people undergoing total hip arthroplasty? What are the main instruments used to evaluate the quality of life after total hip arthroplasty?

The inclusion criteria were: articles published from 2011 to 2015, addressing the research topic in Portuguese, Spanish and English. The exclusion criteria were: incomplete articles, animal studies, children and neonates available in the databases from January to March 2016. All duplicate articles in the databases were discarded and computed only once.

Then, the online searches were carried out in the databases of the Latin American and Caribbean Literature in Health Sciences (LILACS), Coordination

of Improvement of Higher Education Personnel (CAPES), Nursing Database (BDENF) And US National Library of Medicine (PUBMED). In the LILACS survey, using the following keywords: quality of life and hip arthroplasty located in 13 studies, reading the title, abstract and then reading in full, where four articles were selected.

The keywords in search of the BDENF were: quality of life and daily activities finding 12 articles and after reading the title and summary seven studies were chosen. After reading the seven articles in full, only three presented the selection criteria.

In CAPES, the keywords used were: quality of life or daily activities or hip arthroplasty. The Boolean operator OR was used to enlarge the result of the research, finding 150 articles, later reading the title, abstract and, after application of the pre-established exclusion criteria three articles were selected.

However, the keywords in PUBMED were: nursing and Hip arthroplasty and Quality of life and daily activities, being located 208 articles. After the reading of the title and abstract, three studies were selected, and they were read in full.

The data analyzed were organized in a decreasing order in the Microsoft Excel 2010 worksheet as the period of publication of the research, journals and professionals who published the most in the last five years, questionnaires most used in the investigations and main factors that interfere with quality of life after the total hip arthroplasty, as described in the studies. The results of the 13 articles included in the sample were used in the study result and discussion.

Results

The highest publication period among the 13 articles analyzed was in 2012 (42.0%), then 2014 (25.0%), 2013 and 2015 (17.0% each) with the lowest number of surveys. As for the most published journals, the *Revista Mineira de Enfermagem* and the *Revista Brasileira de Ortopedia* stand out (15.0% each). Nurses (46.0%), physicians (31.0%), multi-

-professionals (15.0% each) and physical education professionals (8.0%) were the predominant subjects, confirming the need for expansion of research, on the topic addressed by health professionals.

When analyzing the instruments most used in the evaluation of the quality of life, the Medical Outcomes Study ShortForm 36 (50.0%), followed by the World Health Organization Quality of Life - Bref (30.0%) and (20.0% %) of the studies did not use any instrument.

In the scientific productions of the databases, the main factors that significantly affect the quality of life after total hip arthroplasty are clear the consensus

consensus of the interference of the domains after the surgical procedure among many controversies.

Regarding the factors that influenced the surgical recovery of total hip arthroplasty, the age (19.0%), gender, functional and physical causes were equal (16.0% each), pain (13.0%), socioeconomic level (10.0%) and the equivalence between education, emotional and psychological factors (3.0% each). In Figures 1 and 2, the selected articles that analyzed the quality of life and activities of daily living according to the authors, strategies of interventions and outcomes in the databases are highlighted.

Authors	Intervention strategies	Outcomes
Abreu EL, Oliveira MHA	Pre-operative and post-operative educational activity	Demonstrating the importance of the multidisciplinary team for patient recovery
Lorenzini E, et al	Studies needed to elucidate conditions that influence quality of life after total hip arthroplasty	Quality of life is compromised in physical aspects after hip arthroplasty
Loures EA, Leite ICG	Emphasizing the importance of emotional and social support to restore physical health and quality of life	There is the need to relate the domains that influence the pre-operative and post-operative condition
Paiva L, et al	Educational actions to restore or develop functional abilities resulting from physical, mental or social dysfunction	After the trauma, the quality of life is reconstructed through previous conceptions, involving the elaboration of new concepts of happiness and health
Nogueira PC, et al	It is the ethical and legal responsibility of the nurse to plan the educational activities for the preparation of the individual/caregiver	The reception, support, and clarification of doubts are necessary for the individual and his caregiver in adapting to his new condition of life
Rampazo-Lacativa MK, et al	Os domínios físicos, psicológicos e sociais ao se avaliar a qualidade de vida relacionada à saúde quando se investigam populações idosas com artroplastia total de quadril	As limitações dos instrumentos aplicados em idosos com artroplastia total de quadril, para detectar alterações na maioria das dimensões do Short Form-36, exceto capacidade funcional e dor

Figure 1 - Description of the articles selected, analyzing the quality of life according to the authors, strategies of interventions and outcomes in the databases

Authors	Intervention strategies	Outcomes
Santos NMF, et al	Encouraging spousal support and family support for care and rehabilitation	Actions aimed at women and the elderly to face death and sensory and physical improvement
Santos G, Cunha ICKO	Stimulating independence and autonomy, as goals in health care	The functional capacity indicated for independence and quality of life
Tavares DMS, et al	Actions that stimulate social reintegration and the independence of everyday activities	The reflection of health professionals, the elderly and their families is essential; organizing and expanding social activities
Pucci GCMF, et al	The practice of physical activity influences mental, physical, emotional health and the level of independence	The benefits of physical activity in quality of life, according to the domains analyzed
Lima AB, et al	Establishing an orientation plan for outpatient care	Pre-operative and post-operative guidance is essential in primary total hip arthroplasty
Broderick JE, et al	Teaching cognitive and behavioral skills to improve the perception of pain. Activities and rest to reduce negative thoughts and emotions	The practice of training for the control of pain improves the patient's perception and coping
Bagarić I, et al	The use of analgesics continuously in the post-operative period reduces pain and assists in the performance of activities of daily living	Painless mobility was reestablished in most post-operative patients

Figure 2 - Distribution of the chosen articles, analyzing the activities of daily life according to the authors, strategies of interventions and outcomes in the databases

Discussion

As a study restriction, the shortage of articles on quality of life after total hip arthroplasty by nurses is assessed as a restriction of the study. It is considered that the temporal cut did not significantly influence the sample size since the research on quality of life-related to daily life activities is recent. The care by the nursing team to the people undergoing this surgical procedure, as well as in the orthopedic area is still in magnification.

In the scientific and practical field, the study contributes reporting the results of research on the elements that affect the recovery after the total hip arthroplasty, cooperating for the progress of the orthopedic nursing work of Brazil, through the description of interventional actions for the return of the daily activities that nursing can use in professional practice. The research seeks to contribute to the increase of studies on nursing care and to encourage research by nurses.

It is necessary to find out how the domains change the quality of life of the population, especially in people who perform a procedure as costly as total hip arthroplasty, requiring hospital admission and multi-professional follow-up. Priority is given to expanding research related to the quality of life in orthopedic patients.

Total hip arthroplasty causes several changes in daily life activities, and there are several factors that undermine rehabilitation after this procedure. The femur maintains the body and generates the restriction of the gait. Over the years, there is the interest in the qualification of nursing, especially for specialist nurses, with the goal of providing care to these individuals in the postoperative period.

Thus, older people undergoing surgery are excluded from their social life, impairing functional, psychic, loss of autonomy and dependence of other family members, due to the restriction of mobilization

that directly reflects the quality of life, mainly in females⁽¹⁸⁻¹⁹⁾.

Reducing calcium levels in the climacteric period and lack of vitamin D causes osteoporosis in females. With longevity, the metabolic changes of calcium anticipate bone deterioration. Studies demonstrate the physiological changes, caused in women who are more prone to depression and psychological changes, once they perform various tasks within the family and social context⁽²⁰⁾.

Regarding pain, it negatively affects physical actions, not performing daily tasks after the surgical procedure, interfering with the practice of the activities and their perception of the quality of life. Being more reported in females, due to the lower emotional indexes and lack of support of the spouse. Nonpharmacological Intervention strategies need to be done by nursing to minimize discomfort, caused by restriction of mobility⁽²⁰⁾.

About the functional domains, the executions of daily life activities have limitations in tasks, caused by the physical inability to perform functions independently and significantly interfere with the emotional condition. Impaired mobility hinders the performance of daily tasks, associated with the physical restraint caused by joint changes. Surgery reduces activities of daily living, leads to functional dependence and emotional changes. Physical restriction compromises performance in self-care. It is evident the need of nursing orientations in the maintenance of daily care and social reintegration⁽²⁰⁻²³⁾.

Emotional and psychological health changes the individual's perception of rehabilitation since any surgical procedure leads to multiple doubts and longings. Effective communication must be established between the professional and the patient. In this context, the relevance of family support is demonstrated, avoiding the cognitive decline caused in the hospital-centered model and over-protection of the caregiver⁽²³⁾.

Considering education, it interferes with the condition of learning during the instructive activities of health education and effective communication. Nursing professionals should establish an effective language and measures, preventing complications caused by the postoperative restriction of total hip arthroplasty, being essential in people with lower socioeconomic levels and elderly⁽²¹⁻²⁶⁾.

The socioeconomic level is changed by the interruption of labor activities, which at the same time represents social reintegration as it plays a fundamental role in personal satisfaction, as well as being a fundamental element for the acquisition and maintenance of social relationships. The inability to return to work is related to the social aspects of life, to self-image and the feeling of inferiority towards society⁽²²⁻²⁸⁾.

The nurse needs to know the main conditions that interfere with the activities of daily living and the quality of life of the people who undergo total hip arthroplasty. In this sense, it is important to propose strategies to restore mobility and functional independence. In nursing care planning, it requires the insertion of the person in the health/rehabilitation process. Educational actions of guidelines on mobility, decubitus, wound healing and pain control for the patient/family. Research emphasize that the guidelines, in a group or individual before surgery, ensuring better levels of rehabilitation and de-hospitalization⁽²⁶⁻³⁰⁾.

Conclusion

In summary, total hip arthroplasty causes multiple restrictions and social isolation, reducing the quality of life of individuals due to changes in functional independence. It can be affirmed that the rehabilitation after the surgical procedure depends on several factors. The educational actions by nursing professionals in the pre-operative and post-operative periods have been shown to be effective in several studies. It is important to establish the communication between the professional and the patient, to value

the fears, the pain, the yearnings and to eliminate the doubts of the family members and the patients of the health system.

The generic instruments such as the Medical Outcomes Study ShortForm 36, which evaluates the perception of the human being in their life context, in a wide way, values the self-perception of the patient of the health system. However, there is still no consensus among the authors about the best instrument to be used in the assessment of quality of life after hip arthroplasty.

Collaborations

Lopes GD and Souza SR contributed in the elaboration of the project, data collection, article writing, critical review of the intellectual content and final approval of the version to be published.

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