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Nursing assistance at the hospital discharge after cardiac surgery: integrative review

Assistência de enfermagem na alta hospitalar em pós-operatório de cirurgia cardíaca: revisão integrativa

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Abstract

The study aimed to analyze the available evidence in the literature on nursing care in the hospital post-cardiac surgery. Data were collected from electronic databases LILACS, SciELO, MEDLINE, via DeCS thoracic surgery, hospital, nursing care, in the period 2001 to 2011. Ten articles were selected that showed the need to develop a plan of nursing discharge focusing on prevention of complications and coping with physical limitations resulting from heart surgery. Thus, the discharge should be considered from the time of admission, with carefully planned actions involving patient and family.

Descriptors: Cardiovascular surgical procedures. Nursing care. Patient discharge.

INTRODUCTION

Cardiovascular diseases are the main cause of morbimortality of the Brazilian population [1]. The diseases of the circulatory system with high level of morbimortality are: heart ischemic disease, cerebrovascular diseases, heart failure, and valvulopathies, especially of rheumatic origins, among others [2,3].

There is no single cause for those diseases, but there are several risk factors which increase the probability of their

Resumo

O estudo objetivou analisar evidências disponíveis na literatura sobre a assistência de enfermagem na alta hospitalar em pós-operatório de cirurgia cardíaca. Os dados foram coletados das bases eletrônicas LILACS, SciELO, MEDLINE, através dos DeCS cirurgia torácica, alta hospitalar, cuidados de enfermagem, no período de 2001 a 2011. Foram selecionados dez artigos que revelaram a necessidade de desenvolver um plano de alta de enfermagem com foco na prevenção das complicações e no enfrentamento das limitações físicas decorrentes da cirurgia cardíaca. Destarte, a alta hospitalar deve ser pensada desde o momento da admissão, com ações de cuidado planejadas envolvendo paciente e familiar.

Descritores: Procedimentos cirúrgicos cardiovasculares. Cuidados de enfermagem. Alta do paciente.

occurrence [4]. Because of their several causes and complexity level, cardiac pathologies must have their course urgently interrupted with clinical and/or surgical treatment [5].

Since the treatment is complex, the institution must offer specialized material and human resources as well as a multidisciplinary team with technical-scientific expertise and skills to carry on the daily activities and the ability to see the individual as a whole [6]. A multidisciplinary team should consist of clinicians, cardiologists, electrophysiologists, cardiac surgeons, vascular surgeons, anesthesiologists,

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Abbreviations, acronyms & symbols

DeCS	Descriptors
LILACS	Literatura Latino Americana em Ciências de Saúde
MEDLINE	Medical Literature Analysis and Retrieval System Online
SciELO	Scientific Electronic Library Online

cardiologists, nutritionists, physiotherapists, psychologists, and nursing staff [7].

Among the professionals in the multidisciplinary team, the nurse and the psychologist are extremely important because patients usually present symptoms such as anxiety, depression, negative thoughts about the future, and lack of confidence, especially in the postoperative period [8]. The psychologist seeks to reduce feelings that may interfere with the patient's recovery as well as to prepare him throughout his hospitalization, with the goal of providing trust and peacefulness so that the patient can avoid feeling beaten and tortured [9].

In this context, the role of a nursing team is extremely important, once they assist the patient uninterruptedly during the hours following surgery and are responsible for setting up the unit as well as providing human and material resources [10]. Besides having technical and scientific knowledge, the team is in charge of caring, controlling, and observing the patient by taking into account the complexity of the surgery in addition to the vitality of the organ system involved [2,11].

For this reason, the nurse should organize and plan the assistance based on the methodological steps of the nursing process in order to intervene in accordance with the individual needs of the patient [12]. Hence, nursing practice should be guided by the scientific method as it enables the nurse to identify and meet the needs of the assisted person, through the patient's medical history, nursing diagnosis, planning, and correct implementation and evaluation. However, to meet the needs of patients, the nurse also needs skills, cognitive competence, and constructive technical, organizational and interpersonal relationships, both objectively and subjectively [13].

Despite the intensive care of the nursing team, the occurrence of complications after cardiac surgery is very common and is one of the main causes of morbidity and mortality in the postoperative period [14]. Consequently, nursing care has to be planned systematically so that after discharge the patient does not fear or feel insecure about the new lifestyle, the limitations resulting from the procedure, changes in diet, and other relevant orientations according to the needs of the patient [15-17].

Guidance on discharge is commonly given mechanically and briefly, not taking into consideration the patient's condition and needs [18]. That happens because nurses face difficulties in communicating with physicians. They are not informed about discharge, only becoming aware of it when the patient is leaving or after they have left the hospital

[19]. Thus, hospital discharge should be handled by an interdisciplinary team, mediated by the nurse, who will be the link between the professionals so that the specific needs of each patient are met [20].

Therefore, and to serve as a basis for the job of the nursing team, the present study set out to analyze the evidence available in the literature about nursing assistance at hospital discharge after cardiac surgery.

METHODS

This is an integrative review whose methodological strategy is justified because it summarizes knowledge and incorporates applicable results of practical and meaningful studies [21,22].

In the process of making this integrative review, some operationalization patterns that contributed to the development of the study were followed: (1) the hypothesis was formulated and the problem was identified ; (2) inclusion and exclusion criteria for the selection of samples were established; (3) the analysis of relevant information extracted from the studies was done; (4) the studies included in the review were evaluated; (5) the results were interpreted; and (6) the review was presented, synthesizing the resulting knowledge [23,24].

The study was guided by the following question: what is the available evidence in literature about nursing assistance at hospital discharge after cardiac surgery?

The literature review was based on the LILACS (Literatura Latino Americana em Ciências de Saúde), SCIELO (Scientific Electronic Library Online), and MEDLINE (Medical Literature Analysis and Retrieval System Online) electronic databases. The descriptors (DeCS) used for Health Science were: thoracic surgery, hospital discharge, and nursing care.

The criteria for sample inclusion were based on articles published in Portuguese, English, Spanish, and French, fully available, from 2001 and 2011. The articles were selected based on the analysis of their title and abstract. Those that did not address the issue and did not meet the inclusion criteria above were excluded. Articles published twice were considered only once.

The instrument used for data collection was a grid, created specifically for this study, which was completed by each chosen item with information about identity Id (P1, P2, P3, ...), journal, article title, authors/year, authors' institution, authors' profession, QUALIS system, and considerations/themes.

After inserting the information into the grid, the studies selected were evaluated through careful reading, during which contributions were extracted, results were interpreted, discussions were presented descriptively, and information collected for each article was summarized (Table 1).

Table 1. Presentation of the synthesis of the articles selected for the integrative review.

Journal	Authors/ Year	Article Title	Considerations/Thematic
Rev Min Enferm. [27]	Romanzini AE et al. 2010	Nursing guidelines to patients about self-care and symptoms and signs of surgical site infections after discharge of reconstructive cardiac surgery	It collects information from patients about nursing guidelines concerning self-care as well as symptoms and signs of surgical site infections after hospital discharge from a reconstructive cardiac surgery.
Rev Esc Enferm USP. [26]	Razera APR et al. 2011	The importance of communication during the recovery from post operative	Presents postoperative guidance provided by the nursing team to patients and/or families at a private institution, and the perception of these individuals about the guidance they received.
Esc Anna Nery R Enferm. [28]	Dutra CMP & Coelho MJ 2006	Implantation of mechanical mitral valve: reflections to the take care and the care of customers after the hospital discharge	It describes the participation of the nursing staff in the process of adopting new approaches related to care/daily care of clients undergoing mitral valve implant.
Rev Bras Enferm. [33]	Rocha LA et al. 2006	Nursing diagnosis in patients outgoing cardiac surgery	It identifies diagnosis and nursing interventions for planning nursing assistance to patients in the postoperative period of myocardial revascularization cardiac surgery.
Rev Esc Enferm USP. [34]	Galdeano LE et al. 2006	Nursing diagnosis in perioperative cardiac surgery	It identifies nursing diagnosis of patients in the perioperative period of cardiac surgeries and verifies its compliance by nurses.
Cogitare Enferm. [25]	Gasperi PD et al. 2006	Seeking to re-educate habits and customs: the nursing care process in the preoperative and postoperative period of cardiac surgery	It presents a report of the development of a nursing assistance practice aimed at improving the health of patients undergoing cardiac surgery, as well as their parents', in an attempt to change their habits.
Rev Bras Cir Cardiovasc. [32]	Boaz MR et al. 2006	The importance of preventive measures in the prophylaxis of infections in patients submitted to heart transplant during the first thirty postoperative days.	It describes the occurrence of infections on patients undergoing cardiac transplant, during the first 30 days of the surgery, concerning topography and etiologic agent and it compares the incidence of infections in the postoperative period right after the cardiac transplant with preventive measures adopted to control these infections.
Rev Enferm UERJ. [29]	Pereira APS et al. 2007,	Hospital discharge; view of a nursing team	It points out that the understanding of the process of hospital discharge involves relationships, nurses' experiences along with their beliefs, feelings, rituals, meanings, attitudes, motivations, behaviors and actions.
Rev Latino-Am. Enfermage [33]	Andrietta MP et al 2011	Hospital discharge plan to patients with congestive cardiac failure	It describes how nurses have planned discharge of patients with congestive cardiac failure because not planning the discharge adequately and not following guidance are seen as possible factors of a new hospitalization.
Crit Care Nurse. [31]	Paul S. 2008	Hospital discharge education for patients with heart failure: what really works and what is the evidence?	It presents the barriers to self-care and how nurses can help the patients to overcome these barriers through the education of patients at hospital discharge and by promoting self-care that reduces rehospitalization rates.

Regarding ethical aspects, the authors of this study were concerned with registering the necessary information to identify the authors of the articles investigated and not altering the available information in those documents. For this reason, the material was reproduced and analyzed impartially in order to avoid bias.

RESULTS

The review's final sample was comprised of ten articles, selected according to previously established inclusion criteria, available in the LILACS, SCIELO, and MEDLINE databases.

Nine (90%) out of the ten (100%) articles selected were from nursing journals and one (10%) from the Brazilian Journal of Cardiovascular Surgery. Based on the stratification of the Personnel Development Coordination for Higher Education (CAPES) for journals, five (50%) of the articles were published in Qualis A1 and A2 journals, four (40%) in Qualis B1 and B2, and only one (10%) in Qualis B3.

Regarding the time period of publication, from 2001 to 2011, five articles (50%) were published in 2006 and five (50%) between 2007 and 2011. In 2006, more professionals were willing to publish articles on this issue. In terms of the authors' institutions, seven authors (70%) were from public federal universities and three (30%) were from hospitals, which is positive since it highlights the production of knowledge in educational institutions. However, it is important that this new knowledge gets transmitted to the nursing professionals and put into practice in hospitals.

Regarding authors' occupations, eight (80%) articles were written by female nurses; one (10%), by a male nurse and a doctor; and one (10%), by two male nurses and a biologist. This partnership between nurses and other professionals is valid as a multi-professional outlook allows for different experiences in the healthcare area and improves the quality of the assistance offered.

DISCUSSION

The studies revealed that nurses are concerned with the guidelines provided to patients and their families in the hospital discharge [25-31]. However, guidelines should be developed with the participation of patients and their families in a way that is easy to understand. Accordingly, nursing care should be guided by a scientific methodology that fully meets the patient's needs. Still, studies claim that the nursing staff must develop new approaches to care with the application of nursing diagnoses and teamwork in order to have continuous care [32-34].

Among the new approaches in nursing care, a trusting relationship between nurse and patient must be readily established as it is necessary to prepare patients and their families with information about the need to undergo cardiac

surgery so they can understand it and adapt to possible changes, especially in the postoperative period [23,31]. This is a tense moment, causing emotional stress, insecurity, and fear so the nursing staff must be prepared to guide patients and their families to reduce their anxiety and to comfort them.

Trust within the nurse-patient relationship should happen through a two-way communication because it builds an important foundation for the care to be carried out efficiently and effectively, and it provides understanding of the patient as a whole [26]. These complications may be of cardiovascular, pulmonary, renal, gastrointestinal, and neuropsychiatric origins.

Due to the complexity of cardiac surgeries, the postoperative period is monitored by a multidisciplinary team through continuous monitoring and critical decision making and care. However, it is the nursing staff that monitors the patient full-time, providing specific care that aims at reducing complications and maintaining the balance of the organic system, through planned assistance [22]. On the other hand, one study found that nurses still develop more technical care at the bedside, devoid of greater interaction with the patient and his family [35].

Essentially, the technical model of health care is still very present in the daily routine of health professionals. In nursing, this type of care is repeated in the postoperative period, through interventions aimed at preventing complications with the surgical incision and unidirectional guidelines preparing patients to return to their homes and their daily activities. There is no systematic care involving a discharge plan or the patient.

To change this reality, it is essential that the nursing staff make use of scientific knowledge and records of the multidisciplinary team to develop a discharge plan [33]. That plan must be developed from the moment the patient is admitted so as to provide greater safety and reduce the risk of complications [34]. The specific type of heart surgery should also be considered because the length of stay will vary according to the surgical procedure and the patient's condition. In addition, it may involve the temporary or permanent suspension of some activities, altering the lifestyle of the patient. To that end, it is necessary that the family and the patient follow specific care procedures after the surgery [27].

In this context, the discharge should be carried out with the help of a psychologist working with the family and the patient, in an attempt to help the patient understand the changes and adapt to a different lifestyle by developing new skills. Nevertheless, to make sure home care is provided and to avoid rehospitalization, discharge has to be planned and include the involvement and understanding of both patient and his family.

The discharge plan demands dedication from a multidisciplinary team, with interaction happening between all the professionals engaged in the health-disease process and aimed at minimizing fragmented care. Thus, solutions can

be provided based on the patient's reality as the moment of discharge is the most expected by patients and their families. This moment is also marked by fear, insecurity, doubt, stress, and dependence upon the care of health professionals.

However, the problems mentioned should be solved during the hospitalization period by the nursing staff through continuous care and with planned, implemented, and evaluated actions. Since the discharge causes a feeling of incompleteness regarding the care, it is the responsibility of the nurse to reassure the patient during this recovery process [28]. It is imperative that this professional show the patient how to take care of themselves, valuing their beliefs, feelings, actions, behaviors, and motivating them to feel able to safely develop self-care [29,31].

To this end, the nursing staff has a crucial role in providing educational activities for patients and their families by promoting knowledge and wellness, and enabling them to care for themselves. Self-care awareness is needed by the patient because it improves the practice of activities for their own benefit and quality of life. Self-care should be effectively performed and nurses should encourage it through scientific knowledge based on the General Theory of Orem Self Care. This theory emphasizes the value of engaging patients in self-care, encouraging them to participate actively in their recovery [36].

Based on this theory, educational activities that promote self-care in the postoperative period of cardiac surgery are conducted. These activities should contemplate aspects such as weight control, restriction of salt and fluids, medications, exercise, nutrition, and symptoms of worsening of the disease [27,29,31]. Besides, advice on the special care demanded by the disease and needed to handle the surgical incision and the specific conditions of each patient should be given [25]. This can make them meet and/or greatly exceed any difficulties resulting from their physical limitations as well as reduce health risks [29].

In this regard, it is understood that nursing staff must consider how the patient undergoing cardiac surgery and his family prepare for the procedure, that is, the following must be taken into account: the causes of anxiety; the perception of what is more important to advise the patient on; and how much to advise when the patient is returning home. For that purpose, nursing guidance must be well-established in the patient's discharge plan, in a way that is clear and easy to understand.

In every discharge, it can be noticed that the fragile "thank you" pronounced by the patient comes along with expressions of doubt about the care he must follow after leaving the hospital. Consequently, we highlight the importance of the nursing staff in terms of care and advising patients about actions that will contribute to a better adaptation to daily life and that will minimize their doubts and expectations [28].

However, the lack of knowledge of patients about the disease and treatment will only be solved through the guidance and educational activities provided by nurses and the

evaluation of the surgical patient in understanding the process of recovery from the time of the surgery and the implementation of post-discharge self-care. To do so, the time available and the expertise needed for the nurses to plan an individualized discharge, the availability of educational materials, and the monitoring needed to ensure the effectiveness of hospital discharge must be emphasized [30].

CONCLUSION

After the results discussed, researches must be done about nursing assistance at the hospital discharge of patients in the postoperative of cardiac surgery, with the objective of drawing them to patients' problem analysis which demand nursing specific actions, once scientific research is scarce in this field. These studies may contribute for the scientific development of the profession as well as its practical applicability in the health institutions.

However, nursing care actions towards patients of cardiac surgery must be planned and involve patients and family, and discharge has to be considered from admission so that care will not be fragmented.

Although we are referring to a nursing discharge planning, it is necessary to involve a multidisciplinary team and its records to set a discharge planning. So, the team must advise and develop education activities for patients and family. Moreover, the team is expected to hear and consider what participants say in order to reach their expectations and make their adaptation to a new lifestyle easier.

Author's roles & responsibilities

DFJ	Study design, literature review, data collection, analysis of results and final considerations
PFM	Study design with literature review, data collection, literature review, analysis and discussion of results, and final considerations

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