



# Nursing Care for Patients Submitted to Heart Transplantation: Integrative Review

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## Research Article

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## Abstract

**Objective:** To analyze the scientific production of nurses about nursing care for patients undergoing heart transplantation. Method: Integrative review, with a survey of articles from the last 10 years indexed in the SciELO, LILACS and VHL search bases, in English, Portuguese and Spanish.

**Results:** Studies show that nurses are of paramount importance to the heart transplant process, whether pre, trans and postoperatively. There is still a low adherence of professionals to the production of articles and bibliographies.

**Conclusion:** TxC is a highly complex procedure, which requires monitoring by a multidisciplinary team, with the nurse being the professional who will be close to the patient at all stages of the procedure. Clarifying your doubts about the procedures, in the control of anxiety and insecurities.

**Keywords:** Heart Transplantation; Cardiac Insufficiency; Nursing Care

## Introduction

The first heart transplant (HTx) in Brazil took place in 1968, generating a revolutionary advance in Brazilian medicine and in South America. Despite the pioneering role in TxC – with the first surgery performed one year after the first transplant performed in the world, there were no effective drugs to prevent rejection, which is the main reason for the patient's death on the 28th day after receiving the graf [1].

Currently, Brazil is in 2nd place in the ranking of heart transplants, only behind the United States. According to the Brazilian Association of Organ Transplantation (ABTO), between January and March in Brazil, 2,730 possible organ donors were counted, but only 965 were effective donors, this

is due to the lack of adherence and awareness of the family. The TxC is the 3rd in the ranking of transplanted organs in Brazil, with an average of 388 transplants performed per year [2].

The indication for transplantation is advanced and refractory heart failure (HF), which does not respond to optimal treatment, however, the clinical conditions of patients are, evaluated individually [3]. HF affects around 23 million people worldwide, and the survival of patients after 5 years of diagnosis can be only 35%, with a prevalence that increases with age [3].

TxC is considered the gold standard in the treatment of HF, but in order to define whether the patient is a candidate to enter the transplant waiting list, he/she is rigorously and

periodically monitored by a multidisciplinary team, in order to carry out numerous prognostic evaluations and define if he/she is candidate or not and at what moment he should be included in the transplant waiting list [4].

TxC is considered an extremely complex surgery, the postoperative period requires a multidisciplinary team to care for the patient. The Nursing team provides direct and continuous care to the patient, tends to make quick and effective decisions, aiming to minimize possible complications, changes in blood pressure levels, arrhythmias and ischemia. In addition to monitoring the balance of the organic system, they are responsible for the first post-transplant care, this includes the first changes of dressings and actions that can provide greater comfort, they are also responsible for the care with drains, probes and the control of vital signs, these professionals must remain with the patient, helping with greater difficulties [5,6].

In an outpatient setting, nurses will develop strategies that facilitate understanding and adherence to treatment, they will encourage self-care and lifestyle changes, both for the patient and their families, as such individuals need the support of the team. Of Nursing so that there is a gradual change in their lives [7].

The objective of this research is to analyze the knowledge produced in the scientific literature about nursing care for patients undergoing heart transplantation.

## Method

This is an integrative literature review study, which aims to respond to this knowledge gap through the synthesis and analysis of scientific knowledge already produced on this topic.

The research method used is characterized by presenting a broad methodological approach regarding the reviews, allowing the inclusion of multiple studies with different research designs for a complete understanding of the topic studied. It combines data from both theoretical and empirical literature, in addition to incorporate a wide

range of purposes: definition of concepts, review of theories and evidence, and analysis of methodological problems of a particular topic [8,9].

For the elaboration of this study, six steps were taken, namely: definition of the research question, establishment of inclusion and exclusion criteria by searching the literature, definition of the information to be extracted from the studies, evaluation of the included studies, interpretation of the results and data synthesis [8].

The inclusion criteria for the choice of studies were: complete original articles, available in full in the databases, taking into account the period of the last 5 years, published in Portuguese, English and Spanish. Studies should be indexed in the following databases: Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature on Health Sciences (LILACS) and Virtual Health Library (BVS). The exclusion criteria were: case reports and/or experience, theses, dissertations, monographs, repeated publications in the databases and those that contained only the abstract.

For the selection of articles, a query was carried out on the Health Science Descriptors (DeCS): Heart Transplantation; Heart Failure; Nursing care. Boolean operators were used to systematize the search: Heart Transplantation and Heart Failure and Nursing care.

The data collection period was during the month of November 2020. For the selection of articles, the title of the article was first evaluated, after the abstract and, finally, the study was read in full.

This study complied with Resolution No. 466/2012, which addresses the legal and ethical principles of participants involved in research [10,11].

## Results

56 publications were found, but most studies were not applicable to the research question, leaving only 03 articles for analysis (Table 1).

Search in SciELO, LILACS and VHL databases	Publications: 56		
Application of inclusion/exclusion criteria	Not applicable to the guiding question of the study: 48	Excluded for being a case/experience report and theses: 02	Excluded for not being available in full for free: 03
Total selected articles	3		

**Table 1:** Selection of scientific articles for integrative review.

Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature on Health Sciences (LILACS) and Virtual Health Library (BVS).

Of the studies evaluated, 03 articles met the inclusion criteria previously established, as shown in Table 2.

Authors / Year	Magazine/Place of publication	Outline	Study objective	Nursing care
Pessoa VLMP, Silva JNG, Cestari VRF, Florêncio RS, Freitas TC, Justino PRS, et al; [7]	Anna Nery School/ Rio de Janeiro - Brazil	Descriptive and exploratory study.	To trace the demographic profile of patients undergoing heart transplantation and identify complications presented by patients after heart transplantation during hospitalization.	- Strengthening the bond with the patient is essential, so that he feels comfortable; -Carry out the Nursing consultation being open to the patient's complaints and showing interest in them.H5:H6
Silva EA, Carvalho DV [11]	Alfredo Pinto Nursing School/ Rio de Janeiro - Brazil.	Descriptive study with a qualitative approach.	To know the perception of heart transplant recipients in relation to the Nursing consultation in an outpatient clinic at the Transplant and Heart Failure Unit (CICU).	-Monitor possible bleeding and hemorrhage; -Monitor the glycemic level, since most of them have hyperglycemia in the immediate postoperative period; -Monitor lipid levels, blood pressure and renal function, as immunosuppressants can cause dyslipidemia, systemic arterial hypertension and
Pio FSCG, Azevedo DM, Marques LF, Santiago LC [12]	Nursing Journal UFPE/ Pernambuco - Brazil	Integrative review.	To analyze the scientific production of nurses about Nursing care to the client undergoing heart transplantation.	-Restore homeostatic balance; -List the Nursing diagnoses; -Maintain adequate respiratory function; -Promote hemodynamic stabilization; -Monitor immunosuppressive therapy; -Monitor for signs and symptoms of complications.

**Table 2:** Description of studies selected for review (n=03).

## Discussion

Due to the TxC being a large and highly complex surgery that can present complications, the patient may develop anguish and fear related to the procedure, therefore, the Nursing team is of paramount importance in pre, trans and postoperative care as it clarifies in a humanized way the doubts of both the patient and their families [7]. The nurse will use the methodological steps of the Nursing process to organize and plan patient care according to their needs, in order to promote their rehabilitation as quickly as possible [12].

In a study carried out by nurses, it was analyzed that patients undergoing TxC often have controversial feelings, such as spiritual anguish, anxiety and even remorse for having some previous habits, such as: smoking, alcoholism and the use of illicit drugs, these being addictions are the biggest aggravating factors of heart problems. Therefore, they relate their previous lifestyle to heart failure, so Spiritual

Anguish is usually present as a Nursing diagnosis. In this context, the nurse's assistance must be provided in a holistic way, in which case the professional must look at the patient in an integral way, as a biopsychosocial-spiritual being, being seen with his own values, beliefs and needs [11].

The nurse's assistance to the patient submitted to the TxC is essential, as it needs full and uninterrupted assistance after the procedure, through direct and continuous observation, nursing professionals can detect possible complications in the clinical condition of the same, allowing the multiprofessional team to act quickly and effectively, in order to avoid possible damage. In the immediate postoperative period, the nurse will be attentive to the patient's hemodynamic monitoring, ventilation as well as drainage, bleeding, arrhythmias, ischemia, relieving the patient's discomfort and pain [5,11,12].

The assistance of the Nursing team to the patient submitted to TxC is not restricted exclusively to preparation

in the pre-transplant period, but is still present in the outpatient follow-up. It is noteworthy that the assistance of nurses to chronic patients in the outpatient setting has been proving to be an excellent resource for the promotion of self-care, directing health education to clarify doubts, improving understanding of their health condition, reducing fear and anguish of not being able to live a normal life. All these guidelines result in autonomy in the face of the health-disease process, because when acquiring knowledge, the opportunity arises to put oneself before the professional in a questioning position, placing oneself in the position of subject and not object of professional action [6,7].

To improve the quality of life after TxC, outpatient follow-up with the Nursing team will be essential for the patient to know better his current health condition; the nurse must guide the patient about the medications that will be of continuous use and changes in the life habits [6].

Therefore, a good nurse-patient and family relationship will be decisive in the adequate adherence to the new treatment, as the nurse has as one of his duties to teach the patient the importance of self-care throughout his life. The nurse becomes a key player in the transplanted patient's recovery process, and one of their functions is to guide the care that must be performed daily [7].

After TxC, immune suppressants are used, these drugs are often considered a disharmony in the lives of patients, because even if the treatment is essential so that the organ rejection does not occur, it can cause side effects, such as the compromise of immune defenses, thus increasing the chance of getting sick and this appears recurrently in the daily lives of patients, often impairing social life [6].

After Tx C, there is a radical change in the lifestyle of the patient and their families – who are seen as a system that needs to adapt. Family support is essential during and after surgery, as they often provide financial and emotional support, the latter being one of the most important from the point of view of health professionals [12].

The scarcity of published studies on Nursing care provided to patients undergoing LTx, both nationally and internationally, is highlighted, which is the main limitation of the study.

## Conclusion

Nursing maintains direct contact with the patient at all stages of treatment, clarifying doubts about the procedures, controlling anxiety and insecurities, guiding family members and the patient himself regarding changes in lifestyle, transmitting confidence and security to both.

TxC is a highly complex procedure that requires monitoring by a multidisciplinary team, with the nurse being the professional who will be close to the patient at all stages of the procedure. THE Nursing makes the patient feel welcomed, respected and valued in their individuality, providing guidance, education and health promotion, looking at them in an integral, humanized and welcoming way, creating bonds, promoting self-care, in order to guarantee quality of life.

It is noteworthy that there are still knowledge gaps that need to be filled, although publications that address Nursing care to patients undergoing TxC have been found, it is suggested that new studies be carried out to promote more qualified and safer Nursing care, resulting in care based on up-to-date scientific evidence.

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