109 - APPLICABILITY OF PEPLAU´S THEORY OF NURSING IN THE CARE OF THE PATIENT WITH MITRAL VALVE SUBSTITUTION.

PATRÍCIA CABRAL FERREIRA
DULCE KELLY DE A. FREITAS
VANISSE KALYNE DE MEDEIROS
NATÁLIA NUNES
BERTHA CRUZ ENDERS
UNIVERSIDADE FEDERAL DO RIO GRANDE DO NORTE, NATAL/RN, BRASIL
titiciacf@yahoo.com.br

INTRODUCTION

Cardiovascular diseases stand out as a major concern because of their high morbidity and mortality índices. Every year, in Brasil, 300,000 individuals are victims of cardiovascular disease. This represents a major cause of death in the country and high costs to the health stem. Among these types of disease, the valvular pathologies of rheumatic origins such as mitral valve continues to be a major health problem that demands multiprofessional care (KUBO,et al, 2001).

Among the professionals involved with that type of care, we can point out the nurse´s role in the treatment processes and in the continued education of individuals affected by this pathology. This professional plans to implement its actions by operationalizing the nursing process based on the actual nursing models and theories. It is important that the nurse have knowledge of the adopted theories so as to support and improve her practice (ARAUJO; GARCIA; COLER, 1999).

This study had the objetive to analyze the applicability of a theory of nursing in the care of a patient with mitral stenosis that was treated surgically for mitral vaçve substitution. Specifically the objectives were: 1) To implement the nursing process in the care of a cario-surgical patient, using a theory of nursing as referential; and 2) Reflect on the benefits and difficulties encountered in the use of the nursing theory in caring for the cardio-surgical patient.

THE THEORETICAL REFERENCE

The conceptual structure of reference was originally published by Hildegard E. Peplau in 1952 in the United States. This theory describes nursing as an interpersonal process between the nurse and the patient in which both can grow and develop professionally (PONTES; LEITÃO; RAMOS, 2008). Peplau establishes that nursing actions are divides in four sequential phases of the the interpersonal relation: Orientation, Identification, Exploration, and Solution. These phases overlap each other and are interrelated, as the process evolves in direction of the solution. During the process, the nurse can assume distinct professional roles such as: professor, resource, advisor, leader, technical specialist, and substitute (BELCHER; FISH, 1993).

In the Orientation phase, the patient and/or the family perceive a need and seek professional help, thereby establishing the first encounter between the nurse and the patient. The aim is to jointly identify the problems so that the subsequent care can be planned by mutual decision (BELCHER; FISH, 1993)

In the Identification phase, the patient proceeds to select the persons that will aide in the resolution of the problems. Meanwhile, each individual responds differently to the situations the patient can seek the nurse actively or wait to be contacted. During this phase the patient begins to face hisproblems and therefore begins to lessen his sensations of impotency and hopelessness (BELCHER; FISH, 1993).

During the Exploration phase, the patient obtains the benefits of the available services according to his needs and interests, and the patient becomes an active participant in his own care. He can be so involved in his selfcare to the point of becoming self-suficient, demonstrating initiative and behaviors that help in meeting the aims established. For this, the nurse needs to know how to listen, interpret, accept, and clarify the wishes of the patient so that he can face the challenges with ease (BELCHER; FISH, 1993).

Nursing actions, according to Peplau include the sharing of knowledge with respecto to a need or interest; offering specific information that help in the comprehension of a problem or new situation; utilizing determined abilities and attitudes tht help other people in recognizing, coping, accepting and resolving of problems that affect his capacity to live happily and efficiently; executing and maintaining the goals of the group by the interpersonal relation; providing physical care with clinical ability; and assuming the place of the other (BELCHER;FISH, 1993)

Various authors point out the importance of using theories of nursing practice. They note the benefits that this type of care based on the knowledge produced by nursing, contributes to the advancement of the profession. It also provides a theoretical and scientific base for a more efficient and resolutive practice (ALMEIDA; LOPES; DAMASCENO, 2005; LEOPARDI, 2006).

METHODOLOGY

The study was conducted in May 2008, during the curricular practicum of the Advanced Clinical Nursing module that focuses on cardiology that comprised the time of internment of a patient during the post-surgical period for valvular substitution in the Onofre Lopes University Hospital (HUOL) in Natal, RN, Brazil. The criteria for the selection of the patient were that his state of communication be preserved and acceptance to participate in the study. The student´s hourly time for the practicum was also considered.

Data collection occured by semi-structured interviews and non-systematic observation. The interview guide that requested sócio-demographic information, of the health history, of the current health situation and ailment, of the treatment plan, and of the physical exam. Five encounters with the patient were conducted, with approximately three hours duration each. The data collected were manually registered thus enabling the data analysis, the plan of care and the implementation of nursing care in accordance with Peplau´s theory.

At the first visit, the purpose and objective of the study were explained to the patient and his acquiescence was requested, in attendence to the CNS REsolution 196/96 for subjects participating in investigation and research. Even though he agreed to participate, at the beginning the patient and his wife were rather distrustful and the responses were monosyllabically. The interpersonal relationship was initiating, corresponding to the Orientation phase indicated by Peplau. Gradually, however, the relationship began structuring itself and the health history informtion was able to be collect. The information collected was the following:

The patient was male, 40 years old, married, catholic,and born in Olinda, Pernambuco, Brazil; had primary level

education, resides in Natal, RN and is proprietor of a bar. He lives with his brother in a stucco house with all eletrical and sanitary facilites. As a child, had mumps, varicella, asthma, joint pains and repeated bacterial pharyngo-tonsillitis until adolescence. Relates that he had all vaccines and denies asthma, diabetes, and having been submitted to surgical procedures. Refers episodes of tiredness during physical activities since the age of 18. Smoked and drank alcohol for about 20 years, but has abstained for more than two years. Is a hypertensive and uses Propanolol 80mg/day and Furosemida 40 mg/day. Discovered the cardiac disease in 2006 when interned because of hemorrhagic dengue. After the cardiologic evalution he was diagnosed with mitral valve stenosis of rheumatic origin and was prescribed 20 doses of Penicillin G Benzatine. In February 2008, the patient was admitted to HUOL for surgical treatment. The procedure was not realized because of other patients in more critical conditions. On March 03, 2008 he was submitted to the substitution of the mitral valve.

In accordance with the nursing process based on Peplau´s theory, we entered the **Identification Phase** where we identified the nursing diagnoses, based on data from the observations of the environment and the conditions of the patient, the patient´s complaints, and the physical exam. The diagnoses were identified using the North American Diagnosis Association (NANDA) proposed by Carpenito-Moyet (2005).

The initial contacts with the patient occurred in the Intensive Care Unit during the post-operative period. During this time, the restriction to bed was noted, that according tohim, occured as a result of the surgical incision, the thoracic drain, the monitorin equipment, and the intravenous lines. Besides that, he complained that the high levels of noise and of light in the environment kept him from sleeping wel. Other complaints included incision pain, specially at the moments of cough and respiratory therapy treatments. During the conversations, we identified the low level of instruction with reltion to the need for continuity of the therapeutic plan, that should maintain for the rest of his life.

In the subsequent encounters we worked on minimizing or resolving the identified problems, thus entering the **Exploratory Phase.** Initially we helped the patient ambulate as a way of preventing some complications related to imobility and we oriented for the continuation of such activity; we conversed with the unit nurse about the noise in the unit during the night and about the light problem with the Idea that some improvement could take place; we changed the dressings asseptically, assuming a teaching role and orient the patient and the wife to report to the medical team any signs of infection (rubor, edema or secretion).

We also advised on the way to handle the catheter and the collection system to prevent urine reflux, problem with the catheter, and infection. As to the pain complaints we oriented on the use of pillows for compression of the thorax during the coughing spells and during physiotherapy sessions, along with the administration of prescrived analgesics. Finally, we clarified the importance of continuing the therapeutic plan of Benzatine Penicillin and anticoagulants so as to directly influence the life of the implanted valve.

Days later, in the ward, we found the patient ambulating with the help of his wife and without the thoracic drain.His wounds had an adequate healing process and he seemed to have a better understanding as to the need to continue with treatment. And during the last encounters we initiated the preparation for the dissolution of the relationship with us, thus entering into the **Resolution Phase** of Peplau´s theory. Both the patient and his wife seemed to underssstand the need to maintain the life treatment and for commitment to follow it rigorously.

The main objective of the care process with the patient was to develop alternatives for the solution of the nursing diagnoses identified. Table 1 demonstrates the process of care that occured during the experience.

Table 1. Description of the phases of the nursing care process.

Identification Phase	**Exploratory Phase (Planning and Implementation**			**Resolution**
Diagosis	**Intervention**	**Justification**	**Assignation**	**Evaluation**
High risk to the skin integrity Comfort Perjudized related to restricted bed mobility	I Encourage change of position every 2 hours; Stimulate ambulation; Utilize pillows for membersÿsupport; Evaluate, at each change, the risk ÿreas for decubitus ulcers; Observe for the presence of erythema and skin effects .	The change of decubitus aides in pulmonary expansion and in the capacity to expel the secretions. The change associated with the adequate positioning of the regions of bonÿ prominence, besides contribuing to the patients comfort.	Continuous	Initially, the patient deambulates with help, but in the late meetings he would do it alone; He also demonstrated to be free of decubitus ulcers and a better respiratory pattern.
Sleep pattern affected related to hospital environmental changes	Reduce or eliminate the environmental distractions, mainly the brightness and noise; In case of pain, administer the prescribed analgesics; Converse with the attending physician about the need to prescribe sleep medication.	Complete the night sleep cycles gaurantees that the patient feels rested and disposed.	When necessary	The patient refers improvement of the sleep pattern only when transferred to the ward, once the noise and the luminosity are reduced.
Identification Phase	**Exploratory Phase (Planning and Implementation**			**Resolution**
Diagosis	**Intervention**	**Justification**	**Assignation**	**Evaluation**
High risk for infection related to the surgical wounds and the use of the delayed vesical catheter..	Maintain the surgical incision dry and clean; Change the dressing asseptically daily and when wet, dirty or not occlusive; In relation to the signs of pain; fix the catheter on the skin to avoid traction and maniupulation, and reflux of urine; Assure adequate intake of liquids; Evaluate the urine; Wash hands between patients; Administer the prescribed prophylactic medications.	The use of the techniques described avoids contamination of the surgical incision. The dilution of the urine aides in preventing infections and irritation of the bladder; Careful monitoring detects the problems early preventing the urine srasis. The hand washing technique reduces bacterial transmission..	Continuous	The patient evolved with good healing of the surgical wounds. Also, no signo f infection was observed after the use of the catheter and its removal.
Risk for ineficient controlo f the therapeutic regime related to insuficient knowledge	Identify the causal factors or contributive that impede the effective control; Reduce our eleminate the barriers to learning; Promote the instruction of the patient and his family.	The investigation before initiating the education will facilitate meaning, the effective teaching-learning process, the participation of the family in increasing the cooperation of the client..	Continuous	The patient and his family were able to verbalize the therapeutic plan that should be followed throughout his life. Besides that he committed to meeting the plan.

.Acute pain related to the incision, drainage tubes and the surgical procedure.	Evaluate the intensity, localization and type of pain; Investigate the factors that contribute to the reduction and/or increase of the pain phenomenon; Explain the causes of the pain, if known, and ifpossible define its persistance; Orient the patient to inform the occurance of pain; Provide pillows, if needed; Administer prescribed medication when necessary and evaluate its efficiency.	. Pain is the fifth vital sign and as such, it needs a rigorous evaluation. Knowing the characteristics of the pain is important to its treatment, for directing the patients care. Clarify the causes to improve the understanding nd thereby enhance the colaboration of the patient during treatment. The thorax wound compression with the pillow alleviates the pain and offers security to the patient during the responses to cough and the respiratory physiotherapy. The analgÿsica reduce the pain by promoting more comfort to the patient..	Continuous	The patient adopted the use of the pillow during the episodes of cough. He then refered more assurance and less pain..

Along the phases of the nurse´s work suggested by Peplau and, considering the professional roles, described by the theory, we therefore assumed the subsequent form of roles of the strange person as the source of the font, technical specialist, educator and counselor. It helps to provide the help needed for the patient in the recognition and development of his needs, until he is able to act independently.

With regards to the diagnoses established, Galeano et al (2003) refer that pain phenomena, infectious processes, and harm to the integrity of the skin occur in the post-operative period of cardiac surgeries. With relation to the control of the therapeutic regime, Dutra and Coelho (2006) emphasize the importance of healucation for this type of patient so that he may have the means to maintain his health care and, consequently, a better quality of life. Additionally, we established that Peplau´s theory is useful for the elaboration of the nursing diagnoses, as demonstrated by Araújo, Garcia and Color (1999) that used them for the identification of diagnoses with AIDS patients.

FINAL CONSIDERATIONS

Through this study we were able to perceive that even with difficulties related to the unfavorble conditions in health services, especially in view of the biomedical model stil prevalent, the utilization of Peplau´s nursing theory is possible. It use surpassed the traditional of nursing care that centers on the technique. This occurs to the extent that the interpersonal relationship between the nurse and the patient is present, thereby contributing to the succes in the applicability of the theory. We perceive, therefore, that there is a need for nurses to focus on the use of nursing theories in their practices. This would contribute to establishing effective interaction with the patients that would help make getting ill na opportunity for growth and self improvement of both actors.

Furthermore, with the utilization of Peplau´s interpersonal theory, we have come to understand the importance of continuing the theoretical scheme developed by the author. The human relationship is a necessary element in professional nursing practice and it should be implemented in all areas. Even though the theory´s assumptions were developed in the mid 20th century, ithey are relevant to the actual days. It is possible that they be operationalized in practice, in teaching and in nursing research, in all áreas that permit communication and interaction with the patients.

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Autor principal: PATRÍCIA CABRAL FERREIRA: E-mail: titicia@yahoo.com.br
Rua Cunha Porã, 2437, Conj. Sta Catarina, B. Potengi, Natal/RN – Brasil – CEP: 59.112.380.

APPLICATION OF PEPLAU´S THEORY OF NURSING IN THE CARE OF A PATIENT WITH SUBSTITUTION OF THE MITRAL VALVE

ABSTRACT

This study was conducted with one patient during the post-operative period of valve substitution with the objective to analyse the applicability of the Peplau nursing theory in practice. The referential was Peplau´s theory of nursing . Taxonomy of the North American Diagnosis Association (NANDA) was utilized to describe the patient´s reponse to his health situation. Five encounters were held with the patient during which the interview and observation techniques were used for data collection. Five nursing diagnoses were identified and nursing actions were implemented for the resolution of the identified problems. It is concluded that the appliction of the theory is possible, and that it has benefits and difficulties that need to be considered at its implementation.

Key Word: nursing diagnosis; theories of nursing; interpersonal relationship.

L'APPLICATION DE LA THÉORIE DE PEPLAU DE PROFESSION D'INFIRMIER DANS LE SOIN D'UN PATIENT AVEC LA SUBSTITUTION DE LA VALVE MITRAL

RÉSUMÉ

Cette étude a été accomplie avec un patient pendant la période post-en vigueur de substitution de valve avec l'objectif d'analyser la validité d'application du Peplau la théorie infirmière en pratique. Le référentiel était la théorie de Peplau de profession d'infirmier. La taxinomie de l'Association de Diagnose Nord-américaine (NANDA) a été utilisée pour décrire le reponse du patient à sa situation de santé. Cinq rencontres ont été tenues avec le patient pendant qui l'interview et les techniques d'observation ont été utilisés pour la collecte de données. Cinq diagnoses infirmières ont été identifiées et les actions infirmières ont été exécutées pour la résolution des problèmes identifiés. Il est conclu que l'appliction de la théorie est possible et qu'il a des avantages et des difficultés qui doivent être considérées à son implémentation.

Mot Clé : diagnose infirmière; théories de profession d'infirmier; rapport interpersonnel.

APLICACIÓN DE LA TEORÍA DE PEPLAU EN LA ASISTÉNCIA A UN PACIENTE SOMETIDO A SUSTITUCIÓN DE VÁLVULA MITRAL

RESUMEN

Se describe un estudio realizado con un paciente en el post-operatório de una cirurgía de sustitución de valvular basado en el referencial teórico de Peplau en el cual se usó la taxonomía de diagnóstico de enfermería de la *North American Diagnosis Association* (NANDA) para retratar las respuestas del paciente en la situación de salud que vivía. Se realizaron cinco encuentros con el paciente, durante los cuales se utilizó la entrevista y la observación como técnicas de colecta de informaciones. Se levantaron y priorizaron cinco diagnósticos de enfermería, para los cuales se implemetaron acciones intentando resolver los problemas identificados. Se concluyó que la aplicación de la referida teoría es viable y presenta beneficios y dificuldades, las cuales precisan ser atendidas en su implementación.

Palabras-clave: diagnósticos de enfermería; teorías de enfermería, relación interpersonal

APLICAÇÃO DA TEORIA DE PEPLAU NA ASSISTÊNCIA A UM PACIENTE SUBMETIDO À SUBSTITUIÇÃO DE VÁLVULA MITRAL

RESUMO

Descreve-se um estudo realizado com um paciente no pós-operatório de uma cirurgia de substituição valvar com o objetivo de analisar a aplicabilidade da teoria de enfermgem de Peplau na prática. Foi baseado no referencial teórico de Peplau em que se utilizou a taxonomia de diagnóstico de enfermagem da *North American Diagnosis Association* (NANDA) para retratar as resposta do paciente a situação de saúde que vivenciava. Foram realizados cinco encontros com o paciente, durante os quais se utilizou a entrevista e a observação como técnicas de coleta de dados. Foram levantados e priorizados cinco diagnósticos de enfermagem, para os quais se implementaram ações na tentativa de resolver os problemas identificados. Concluiu-se que a aplicação da referida teoria é viável e apresenta benefícios e dificuldades, as quais precisam ser atendidas na sua implementação.

Palavras-chave: diagnósticos de enfermagem; teorias de enfermagem; relação interpessoal.