Abstract

Objectives: To identify in the literature the nursing care in the hemodialysis room, as well as to evaluate the patient needs in the hemodialysis treatment.

Method: Bibliographic study of descriptive origin with exploratory investigation. The search was carried out at the bases: Scielo, Bireme and Google academic, from 2010 to 2016, using the descriptors: nursing, care, hemodialysis.

Results: Forty-eight articles were found and the final sample comprised 16. It was noticed that the nursing care in the hemodialysis room is very important for the safety and protection of the patients, who during the session should be observed, due to the risks that it offers. It is understood that the patient’s need in hemodialytic treatment is to undergo various restrictions and be accompanied by a multidisciplinary team always aiming at the comfort and safety of the patient.

Conclusion: Therefore the changes that exist in the life of the chronic renal patient are several, such as fear of death, feel excluded from living with friends, gain weight because the body can not excrete toxins and liquids, and are indefinitely imprisoned to the dialysis machine.

Keywords
Nursing; Assistance; Hemodialysis.
Introduction

Renal insufficiency happens when the kidneys fail to perform their functions which is to excrete metabolic waste generating endocrine, electrolytic and acid-base imbalances. It can be acute and chronic; the acute occurs suddenly is reversible. Chronic renal failure is slow, there is a total and irreversible loss of kidneys. [1]

In view of this the patient has three alternatives to prolong life are: Hemodialysis, Peritoneal Dialysis and Renal Transplantation, with hemodialysis being the most used. [2] Hemodialysis is an ultrafiltration of blood, the process occurs through an arteriovenous fistula that connects to the dialysis machine allowing the flow. The blood is carried by a circulation system that removes accumulated toxins and fluids, keeping the body in balance. These sessions are on average three times a week with up to four hours of duration according to the patient’s need and for an indefinite time while waiting for a transplant. [3]

During the sessions there are some complications such as: hypotension the client presents dizziness and feeling of fainting precordial pain and others. During the session there is a weight gain, hypotremia, excessive ultrafiltration and makes use of antihypertensives. [4]

Nursing is faced with the responsibility to guide the patient from the diagnosis, regarding the treatment the difficulties that the same will have to overcome. Communication is indispensable for a good result. The nurse can be present in all the sessions to better know the patient and his family, identify the needs, taking the doubts. [5]

The justification for doing this work is: in the face of the complexity of the topic is revealed by the importance of presenting conditions for the nurse to be able to know the functions in a hemodialysis room and to know their role as educator and caregiver of patients in general, to have a holistic vision, thus providing a quality of life for patients with chronic renal failure.

A patient with Chronic Renal Failure will have many changes in their life and self-esteem, as well as in their routine, being susceptible to infection at death if during dialysis a tube disconnects or even gives up sessions.

The object of study is the nurse’s role in the hemodialysis room and aims to investigate the nurse’s role in the hemodialysis room, identifying in the literature the nursing care offered and the changes they provide in the life of the chronic renal patient.

Methods

It is an integrative review of the literature, a scientific method that allows us to summarize the past of the empirical or theoretical literature, to provide a more comprehensive understanding of a certain phenomenon. [6-7]

For the development of this review, it was guided by the six steps: 1. identification of the theme and selection of the research question; 2. establishment of inclusion and exclusion criteria; 3. identification of pre-selected and selected studies; 4. categorization of selected studies; 5. analysis and interpretation of results and 6. presentation of knowledge review/synthesis. [7-8]

The question that guided this study was: How should the nursing care be given to the patient on hemodialysis? The pre-defined inclusion criteria were: articles available online and in full, comprised between 2010 and 2016, available in the Portuguese languages, which addressed the topic of nursing care in the hemodialysis room. Duplicate articles, experience reports or articles whose methodology and theme were incompatible with the previously defined proposal for this study were excluded.

The search was carried out simultaneously by two reviewers, to guarantee a certain rigor to the selection process of the articles. At the same time, the Scientific Electronic Library Online (SciELO), the Regional Library of Medicine (BIREME), and Google
Scholar, in the second semester of 2016, with standar-
dized descriptors available in the DeCS: “Nurs-
sing” [And] "assistance” [and] "Hemodialysis”.

We detected 48 articles, of which 15 met the pre-
deﬁned inclusion criteria. After the search phase, a
careful reading of the articles was done, delimiting
the variables for analysis and discussion of the data:
year of publication, titles, applied methodology,
journal and level of evidence.

In the next stage, the studies were evaluated as
the variables deﬁned, applicability of the result in
the practice of Nursing, methodological rigor used
in the studies, implanted interventions and related
results, type of study and level of evidence, con-
sidering: 1 - systematic reviews or meta-analysis
of Relevant clinical trials; 2 - evidence of at least
one well-delineated randomized controlled trial; 3
- well-delineated clinical trials without randomiza-
tion; 4 - well-delineated cohort and case-control
studies; 5 - systematic review of descriptive and
qualitative studies; 6 - evidence derived from a
single descriptive or qualitative study; 7 - opinion
of authorities or committees of experts including
interpretations of information not based on sur-
veys. [9]

A summary of the themes was presented, ac-
cording to the similarity and exposed in a table. To
analyze the data, a table was drawn up characteri-
zizing the articles regarding the year, title, periodicals
and author.

Results and Discussion

The results and discussions were carried out after a
thorough reading of all the articles compiled, and
were described in a summary table (Table 1). Then,
the selected material was classiﬁed by semantic
similarity, and the similar themes were grouped,
being formed categories of analysis which were
characterized and analyzed.

Table 1. Characterization of publications regarding the year, title, journal or periodicals and authors.

<table>
<thead>
<tr>
<th>Title</th>
<th>Journal</th>
<th>Methodology</th>
<th>Year</th>
<th>Evidence Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adherence of Chronic Renal Insufﬁciency Patients. [10]</td>
<td>Acta Paulista de enfermagem</td>
<td>Descriptive study</td>
<td>2010</td>
<td>VI</td>
</tr>
<tr>
<td>Nursing worker perceptions on hemodialysis service patients and labor dynamics. [12]</td>
<td>Texto e Contexto de Enfermagem</td>
<td>Descriptive-Qualiﬁcative Study</td>
<td>2011</td>
<td>VI</td>
</tr>
<tr>
<td>Nursing Care for Patients in Hemodialytic Treatment in Nephrology Units [14]</td>
<td>Revista Cientíﬁca do ITPAC</td>
<td>Review</td>
<td>2013</td>
<td>V</td>
</tr>
<tr>
<td>Roles of Nursing in Hemodialysis [15]</td>
<td>Revista Brasileira de Educação e saúde</td>
<td>Descriptive Study</td>
<td>2013</td>
<td>VI</td>
</tr>
<tr>
<td>Nursing Care for Chronic Renal Hemodialysis Patients [16]</td>
<td>Rev Rene</td>
<td>Review</td>
<td>2014</td>
<td>V</td>
</tr>
<tr>
<td>Becoming proficient: knowledge and practice of hemodialysis nurses [18]</td>
<td>Esc Anna Nery</td>
<td>Descriptive Study</td>
<td>2014</td>
<td>VI</td>
</tr>
<tr>
<td>Defined characteristics of the nursing diagnosis identiﬁed on individuals in hemodialysis [19]</td>
<td>Cienc Cuid Saúde</td>
<td>Descriptive Study</td>
<td>2015</td>
<td>VI</td>
</tr>
</tbody>
</table>
Based on the reading of the text, three thematic categories were prepared:

**Assistência de Enfermagem em Sala de Hemo-diálise**

It is the responsibility of the nurse to ensure the safety of the patient so that the environment is favorable transmitting, security so that the same does not give up the treatment. The nurse is also responsible for the use of machines that will be operated for the hemodialysis process because the patient is susceptible to infections. And for this reason the professional must use the aseptic techniques taking into account the entire filtration system of the machine and accompanying the patient from the admission. [15,16]

So that when the nurse knows the equipment can perform with security and dedication its function; and ready to meet the requirements as the patient needs. Given that knowledge is built and rebuilt collectively with the entire team. [18]

Studies show that care with the arteriovenous fistula is essential to avoid complications such as: stenosis, thrombosis, hand pseudoaneurysm edema and infection, so that there is no interference in the treatment, always promoting patient care. [10]

The nurse besides making the hemodialysis sessions safe, can elaborate the nursing diagnoses, which includes the label the characteristics that will define their state of health presenting signs and symptoms. [19]

In the hemodialysis the presence of the nurse is assiduous, being the professional who will have contact with the patient from the beginning to the end of the sessions, monitors the dialyses by preventing, treating the adverse effects. [14]

The nurse coordinates the team identifying the needs of the patients, should always be updating the knowledge to offer safety and quality promoting a better acceptance to the patient during the treatment. During the hemodialysis sessions, changes may occur, so the nurse must be able to intervene, among the changes are: hypotension and hypertension, muscular cramps and dialysis imbalance syndrome, nausea, vomiting, pruritus, headache, fever and chills. [4]

It is of paramount importance that the nurse has scientific knowledge about all procedures and also sensitivity to use the technologies more always preserving the patient, always taking care and finding strategies to help the patient in his illnesses and his difficulties. [22]

**Patient Needs in Hemodialytic Treatment**

Due to chronic renal insufficiency, the patient becomes dependent on the hemodialysis sessions and will undergo many changes, one of which will be nutrition and the care of water intake. Patients are followed by the nursing professional during the sessions, as there may be complications such as: anorexia, presence of uremic toxins gastrointestinal disorders and metabolic alterations. [16]

It is a necessity for the patient to be oriented and have psychological support from the moment he receives the diagnosis of Chronic Renal Failure, aiming to maintain health and prevent future complications, since the disease alone already
develops other disorders leaving the patient more sensitive. [15]

However, it is necessary to provide support and comfort because at each session the patient is going through complicated times due to having to perform venipuncture on the Arteriovenous Fistula with a large needle, a delicate situation most necessary for the continuation of life. The patient will feel many discomforts, pains, that the multiprofessional team must be attentive to treat, many give up for a while because of transport is difficult the hemodialysis places are distant, becoming very tiring generating stress, influencing on hemodialysis that will be three Four-hour sessions on alternate days. [10]

One can see that one of the negative factors on the patient is the physical and mental fatigue that often interrupt their daily activities, the degree of schooling also interferes, they often fail to understand and correctly do the treatment and the restrictions. [19]

When the patient presents hypotension due to the dialysis, should be placed in the position of tredelemburgue, must be made bolus of 100 ml of Sf 0.9% or more if indispensable the speed of ultrafiltration should be reduced to near zero. [14]

Sometimes the client becomes swollen due to fluid retention in the body will be directed to reduce weight gain in the Inter dialytic interval and when it is necessary to prolong the dialysis time. [4]

The nurse monitors the vital signs and observes if there are some intercurrences, therefore, presenting some sign of nausea and vomiting, muscle cramps can also intervene with antiemetic medications. [14]

Hemodialysis as a delicate process patients need to share their difficulties and struggles with professionals and family members often they tend to social isolation because they can not share their feelings. [12]

In order for nurses to perform safely, it is necessary to use IPE, the dialysis room is an environment conducive to contamination of both pathogens, blood fluids and carcinogenic chemicals. [17]

According to articles they report that to make the exchange of dressing is before dialysis the professional will use sterile techniques, mask, sterile gases or transparent film to protection to avoid professional and client contamination. At the beginning of the dressing, you will observe the catheter outlet, always investigating if there is any risk of infection to the client. [12-17]

Changes in the Life of a Chronic Renal Patient
At first, when they discover that they have chronic renal insufficiency, they feel fear of death and some patients deny it to themselves and this can complicate the treatment even more, they become insecure they have low esteem. [11]

One of the changes is the volume of liquids that the body can not excrete, even with hemodialysis, not all the liquid is withdrawn because only the kidneys remove the toxins. [21]

No dia a dia eles se sentem excluídos de um grupo social pois passam a viver com muitas restrições nutricionais, medicamentosa, precisando de auxilio da família que em alguns casos os abandonam, tornando ainda mais difícil. [12]

In the daily life, they feel excluded from a social group because they live with many nutritional restrictions, medication, needing help from the family that in some cases abandon them, making it even more difficult. [10]

During hemodialysis the body will undergo changes such as: hypotension, which causes the main causes to be gained excessive weight, hyponatremia, excessive ultra filtration and the use of anti-hypertensive drugs, it is not recommended the use of sedatives as they may cause some symptom. [4]

When hypertension occurs due to accumulation of water and sodium, it is necessary to suspend the antihypertensive medication during dialysis, and if for the same medications the chances of hypertension are greater, the medications nifedipine and captopril cease the attacks of hypertension caused by dialysis. [4]
The patient may present symptoms such as: muscular cramps, dialysis imbalance syndrome when conducting urea to the brain causing a concentration gradient and symptoms such as nausea and fever, headache, chills. [4]

Conclusion

The patient needs to be monitored before and during hemodialysis because they may present with symptoms such as hypotension, pruritus, nausea, vomiting and other symptoms, being susceptible to infections and death. The nurse is of great importance, since it can play several roles as: manager, educator and researcher. It is of fundamental importance because it has scientific knowledge and sensitivity to deal with clients in hemodialysis treatment.

However the guidelines of aseptic techniques and how to operate the machine so that mistakes are avoided is passed on by the nursing professionals who accompany it promoting the safety, health and comfort of the patient.

References


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