ABSTRACT

Objective: to elaborate the nursing process in the care of hemodialysis patients based on the North American Nursing Diagnosis Association (NANDA-I), Nursing Outcomes Classification (NOC) and Nursing Interventions Classification (NIC). Method: descriptive study of a qualitative approach, carried out in Fortaleza, Brazil. The study subjects were 12 patients on hemodialysis, which presented the following characteristics: being registered in the institution; aged 18 years or over; admitted to hemodialysis for at least three months; on hemodialysis during the study period; aware or able to answer the questions; and accept to participate in the interview. Results: 24 patients with chronic renal failure, four of risk and two of welfare. In the fourth domain (Activity/Rest), the patients present a higher percentage of diagnoses, seven, eight, and nine. The fifth domain (sensory/motor function) had the highest percentage of diagnoses, ten, eleven, and twelve. The domains three, four, five, six, seven, eight, and thirteen present only one nursing diagnosis. The interventions were prescribed according to the diagnoses found. Conclusion: the nursing process allows nurses to direct the assistance offered, identifying the individual needs of each patient and providing means of assistance seeking a more appropriate treatment. Descriptors: patient care; chronic renal failure; renal dialysis.

RESUMO

Objetivo: elaborar o processo de enfermagem no cuidado aos pacientes em hemodiálise ressalvados na North American Nursing Diagnosis Association (NANDA-I), Nursing Outcomes Classification (NOC) e Nursing Interventions Classification (NIC). Método: estudo descritivo, de natureza qualitativa, realizado em uma clínica de hemodiálise, localizada em Fortaleza-CE, Brasil. Os sujeitos foram 12 pacientes em tratamento de hemodiálise, que apresentaram as seguintes características: cadastrados na instituição; idade igual ou superior a 18 anos; realizar hemodiálise há pelo menos três meses; estar realizando tratamento no período da pesquisa; estar consciente ou apto a responder os questionamentos e aceitar participar da entrevista. Para a coleta dos dados, utilizou-se um roteiro de entrevista contendo os 13 domínios de enfermagem da NANDA-I. O projeto foi realizado de acordo com a Resolução 196/96 da Comissão Nacional de Saúde. Os resultados foram expostos em dois tópicos: descrição dos participantes, na qual constam as características dos participantes do estudo; e plano de cuidados para os pacientes portadores de insuficiência renal crônica em tratamento hemodialítico. Este estudo teve o projeto aprovado pelo Comitê de Ética e Pesquisa, da Universidade de Fortaleza, com parecer favorável sob n.° 202/08 e CAAE n.° 1881.0.000.037-08. Resultados: foram estabelecidos 30 diagnósticos de enfermagem, sendo 24 reais, quatro de riscos e dois de bem-estar. No quarto domínio (Atividade/reposo) teve maior prevalência de diagnósticos de enfermagem sendo encontrado sete, seguido pelo Domínio nove (enfrentamento/tolerância ao estresse), com quatro diagnósticos. Os domínios que apresentaram mais de dois diagnósticos de enfermagem foram: domínio dois (sensory/motor function), com sete diagnósticos; domínio três (papéis e papéis que substituem) com seis diagnósticos; domínio quatro (Atividade/reposo), com cinco diagnósticos; domínio cinco (atendimento), com quatro diagnósticos; domínio seis (ajuda), com três diagnósticos; domínio sete (interação), com três diagnósticos; domínio oito (adaptabilidade), com três diagnósticos; e domínio dez (suporte social), com três diagnósticos. As intervenções foram prescritas conforme os diagnósticos encontrados. Conclusão: o processo de enfermagem permite ao enfermeiro direcionar a assistência prestada, identificando as necessidades individuais de cada paciente, proporcionando meios de atendimento que vistem uma melhor adequação ao tratamento. Descriptors: atendimento ao paciente; insuficiência renal crônica; diálise renal.
INTRODUCTION

Chronic renal failure (CRF) is the progressive and irreversible loss of the kidney functions that can start with an acute clinical picture, in a slow and gradual manner. This consists of the final stage of evolution of many kidney diseases and, in some cases, it is identified only with the onset of uremic symptoms. From the time it is diagnosed, it is necessary to make a treatment for replacement of renal functions, and among treatment modalities which are available, we could cite peritoneal dialysis, hemodialysis and renal transplantation.

The age of the population in dialysis process has risen very much in Brazil, as in European countries and the United States. Studies have shown survival rates at one and five years, respectively, of 77% and 58% for patients with an average age of 43 years old, and 10% for those with diabetes, it is a similar survival to the European average and greater than the American average. The Brazilian census on nephrology shows that dialysis treatment has been increasing gradually over the years, it went from 42.695, in 2000, to 92.091, in 2010. 90.6% of these patients with CRF suffer hemodialysis treatment.

The presence of a chronic disease is a very stressful event and can create significant psychological problems for patients, affecting their physical and mental health, functional status, independence, welfare, in general, and personal relationships.

This study highlights the hemodialysis, because this process interferes with the patient’s life in its all dimensions: physical, biological, psychological, social, spiritual and cultural. Due to the dependence of the machine, the treatment interferes with work, studies, financial income, social activities, relationships with family and self-esteem. Therefore, we perceive the importance of nursing care to patients on hemodialysis process, in order to avoid complications in the treatment that could interfere further in the quality of life of these patients.

The nursing professional has a vital role in caring for individuals with CRF on dialysis, especially in regard to the encouragement of the practice of self-care, in order to facilitate cooperation and adherence to the treatment, and furthermore encourage it to face the everyday changes and achieve its own welfare.

It is indispensable to stimulate their abilities, skills and potential for human reaction, allowing it (patient) to adapt positively to the new lifestyle and take control of its treatment. The importance of the holistic view in the nursing care is essential, in order to permeate the whole attendance from health care professionals. It is the nurse who plan educational interventions along with clients, according to the assessment that is done, aiming to help them relearn how to live with the new reality.

The main difficulties experienced by patients in hemodialysis treatment may be eventual, but some are extremely serious and life threatening. The nursing staff plays a key role in the ongoing care of patients during the hemodialysis session, and should act according to the real needs of the patient.

The Resolution of the Brazilian Federal Nursing Council - Conselho Federal de Enfermagem (COFEN) n.º 358/2009 considers the systematization of nursing care - Sistematização da Assistência de Enfermagem (SAE) and the implementation of the nursing process - Processo de Enfermagem (PE) as a compulsory and exclusive activity of the nurses in all practice areas, to primary, secondary or tertiary attention, developed in public or private institution.

The SAE methodology should lead to nursing diagnoses, assist in setting up priorities, support the nursing interventions and provide parameters for assessment. The nursing process consists of five sequential phases and interrelated: survey data (anamnesis and physical examination); nursing diagnosis; planning; implementation and assessment.

Nursing has presented needs to standardize a language that can be understood and practiced by nurses in various locations. Classification systems such as NANDA-International (NANDA-I) - nursing diagnosis, the Nursing Interventions Classification (NIC) - nursing intervention and Nursing Outcomes Classification (NOC) - results of nursing are tools to improve reliability, validity and usability of nursing documentation.

The use of the nursing process is one of the means that the nursing professional have to apply its knowledge in patient care and characterize its own professional practice. Nursing care in the hemodialysis unit identifies and monitors the adverse effects and complications resulting of the disease itself, developing educational initiatives in prevention of diseases, promotion and rehabilitation of health; so there are several specific interventions performed by the nursing professional. The practice of
personalized care is directly linked to quality of care, and one of the ways to achieve this objective is through the nursing process.14

Given these considerations, the aim of this study was to prepare the nursing process in the care of patients in hemodialysis process, based on the North American Nursing Diagnosis Association (NANDA-I), Nursing Outcomes Classification (NOC) and Nursing Interventions Classification (NIC).

METHODOLOGY

It is a descriptive study with qualitative analysis, conducted in a hemodialysis clinic in Fortaleza-Ceará/Brazil. This service works since 1976, developing activities of medical clinic and nephrology. The unit assists 33 patients per session. Treatment may be Monday, Wednesday and Friday or Tuesday, Thursday and Saturday, in the shifts of the morning, afternoon or night. Currently, there are 180 patients from Sistema Único de Saúde (SUS) and 32 of agreements which offer hemodialysis treatment in the above mentioned clinic. The team is multidisciplinary, consisting of six nephrologists, five nurses and 25 nursing technicians.

The clinic has 212 patients enrolled, all of them with CRF and in hemodialysis treatment. 12 subjects were selected for participating in this study, they had the following characteristics: be enrolled in the institution; aged 18 years old or over; suffer hemodialysis treatment for at least three months; be suffering this treatment during the study period; being aware or able to answer the questions and accept participating of the interview.

Data collection was performed with the use of a script for an interview, with open and closed and closed questions and were covered the 13 domains of the taxonomy II of NANDA-I. The interview occurred during the hemodialysis sessions.

The researchers attended the hemodialysis unit during two weeks, in three shifts, for conducting the interview with the patients who were on hemodialysis treatment.

Data were organized according to the domains of nursing from NANDA. To perform the first step of the nursing process, we read the forms of the nursing historic, detecting the defining characteristics and related factors. The second step was to establish nursing diagnoses present in the study subjects, according to NANDA-I. The third step was performing the planning of care, establishing the expected results, according to the NOC and prescribing nursing interventions for each diagnosis, according to NIC, and subsequently to be implemented and assessed.

The implementation and assessment steps were not performed, since the care plan still shall be implemented. This step shall be performed in a later study, when we conduct the validation of plan elaborated for patients on hemodialysis treatment.

This study was conducted in accordance with Resolution 196/96 of the Brazilian National Health Council15, since the research project was submitted to the Ethics Research Committee of the Universidade de Fortaleza (UNIFOR) and was approved for its development under n.° 202/08 and with Certificado de Apresentação para Apreciação Ética - (CAAE) n.° 1881.0.000.037-08. The subjects were told about the objectives of the study and signed a Free and Informed Consent Form. It is worth mentioning, that were guaranteed the anonymity and the patient’s right to withdraw consent at the time they wanted without having any commitment in their monitoring the institution.

RESULTS

The results were displayed on two topics: a description of the participants, which includes the characteristics of the study participants; and plan of care for patients with chronic renal failure on hemodialysis treatment.

♦ Descriptions of participants

For a description of the participants were considered the following variables: gender, age, marital status, schooling, occupation, origin, underlying disease to chronic renal failure and treatment time.

Among the 12 study participants, there were seven men and five women; the age ranged from 40 to 78 years old, 10 adults and two seniors, 11 were married and one is widow, two had completed elementary school, seven finished the high school, one is illiterate and two concluded the higher education; with regard to the occupation, everybody exerted some kind of profession, however, after the start of treatment, all are retired; 11 were from Fortaleza/CE; Brazil and one of the city Mossoró-RN/ Brazil, the underlying disease was pretty diversified, even because the causes is not always well defined, because it is a multifactorial disease, but the main one was hypertensive renal disease in five of these, followed by two with polycystic kidneys, two with CRF, one with disturbance in the tubule, one with pyelonephritis and one with diffuse proliferative glomerulonephritis ; the
hemodialysis time varied from one to 17 years, seven patients with time treatment under 10 years and five from 10 to 20 years.

With the survey on the main evidences that the patients on hemodialysis present and attribution of nursing diagnoses makes it easier to direct the assistance and see the patient in a complete manner.

Plan of care to patients on hemodialysis treatment

To establish the plan of care of the nursing process to patient on hemodialysis treatment, we followed the first four steps: research, nursing diagnosis, planning and implementation, according to the taxonomy II of NANDA-I, covering the 13 domains in which real, risk and welfare diagnoses were found. The nursing diagnoses were exposed according to the specific domains.

Domain 1 - Health Promotion - in this domain, we found two nursing diagnoses, one of welfare and other real, which are listed below:

- **Diagnosis:** mood for increased control of therapeutic regimen characterized by the expressed desire to control disease.  
  Indicators (NOC): adherence behavior to therapeutic the regimen.  
  Interventions (NIC): improve the mood to learn; facilitate the learning with lectures and workshops; provide guidance on the therapeutic regimen; advice on weight control, sample collection, water control and risk factors.

- **Diagnosis:** impaired home maintenance management characterized by financial crisis, related to chronic disease, inadequate finances.  
  Indicators (NOC): physical environment, family functioning.  
  Interventions (NIC): provide assistance in the home maintenance; help in the assistance of self-care, advice support for sustenance; provide support to the family in the health-disease process; create propitious environment for locomotion, if it is necessary.

Domain 2 - Nutrition - we found one real nursing diagnosis in this domain:

- **Diagnosis:** imbalanced nutrition: less than body requirements characterized by lack of information on the proper foods, low income, nausea and lack of appetite related to medicinal drugs, abdominal discomfort and psychological factors related to misconceptions about the disease; little information about the adequate foods, excess or deficit of weight.

Interventions (NIC): nutritional monitoring, provide assistance in self-care: feeding; emphasize the importance of a balanced diet according to the economic conditions of customer, establish routines in the unit on diets; submit it for assessment with nutritionist.

Domain 3 - Removal and exchange - we found one real nursing diagnosis in this domain, described below:

- **Diagnosis:** constipation is characterized by fatigue, change in bowel pattern, difficulty for evacuating, related to irregular evacuation habits, inadequate fibers intake, inadequate fluid intake, electrolyte imbalance.

  Indicators (NOC): control of symptoms, bowel elimination (evacuation).

  Interventions (NIC): stimulate exercises that help the bowel motility; advice on diet; administer prescribed medications, control of nutrition, water intake and bowel activity.

Domain 4 - Activity / rest - we identified in this domain seven nursing diagnoses, six real and one of risk, described below:

- **Diagnosis:** impaired ambulation characterized by impaired ability to walk along the distances required, it is related to the need for devices to walking around.

  Indicators (NOC): mobility; coordinated movement.

  Interventions (NIC) provide assistive devices to balance the walking, preventing falls; provide physical structure that enables better adequacy of the patient; administer prescribed medications for pain control; teach and encourage the practice of physical activities; encourage the ambulation, in the possible extent.

- **Diagnosis:** impaired physical mobility characterized by slow movements, changes in gait (walking) associated with loss of integrity of bone structures, cardiovascular endurance limited.

  Indicators (NOC): physical mobility.

  Interventions (NIC) to provide assistance in self-care, stimulating essential activities of daily living; advice with regard to the caloric energy control, traction cares, fall prevention, encouraging the creation of ramps to facilitate the ambulation, therapy with exercises: joint mobility; assess the circulation and pain (frequency, intensity, location).

Interventions (NIC): nutritional monitoring, provide assistance in self-care: feeding; emphasize the importance of a balanced diet according to the economic conditions of customer, establish routines in the unit on diets; submit it for assessment with nutritionist.
of dialysis access, monitor blood pressure and breathing pattern; provide oxygen therapy, if it is necessary, advise on balanced diet; realize the control acid-base and fluid-electrolyte; establish / manage emergency cares, monitor the patient's weight before and after dialysis, monitor relevant laboratory results to fluid retention.

Diagnosis: decreased cardiac output, characterized by bradycardia, edema, weight gain, related to rhythm and heart frequency changed, ejection volume changed. 16

Indicators (NOC): cardiac skin tissue perfusion. 17

Interventions (NIC): monitor the patient's weight before and after dialysis, monitor laboratory results relevant to fluid retention; monitor abnormal levels of serum electrolytes, monitor manifestations of electrolyte imbalance, check vital signs, perform control acid-base; administer prescribed medications, provide oxygen therapy, if it is necessary, perform monthly exams collections, according to the routines of the unit; advice on a balanced diet; establish / manage emergency protocols; assess circulation, investigating arterial and venous insufficiency;

Diagnosis: insomnia characterized by difficulty for fall asleep, related to physical discomfort, fatigue, environmental factors, and medications. 16

Indicators (NOC): reconciliation of sleep and rest. 17

Interventions (NIC): observe the prescribed medications and possible adverse reactions; assist in the investigation of stressor factors; provide emotional support; refer to psychological service; advice the rest in a calm and quiet environment.

Diagnosis: intolerance to the activity, characterized by fatigue, discomfort on efforts, related to general weakness, imbalance between supply and demand of oxygen. 16

Indicators (NOC): self-care: activities of daily living. 17

Interventions (NIC): advice about the behavior of caloric energy control; provide assistance in self-care; monitor: electrolytes, vital signs and dry weight; install oxygen therapy, if it is necessary, encourage the practice of activities; encourage the promotion of physical exercise, in accordance with the limitations; create in the unity physical structures that facilitate the ambulation.

Diagnosis: Poor recreation activities which is characterized by lack of labor activity, related to lack of recreational activities on the environment. 16

Indicators (NOC): social engagement, motivation. 17

Interventions (NIC): facilitation of self-responsibility, provide recreational therapy; provide occupational therapy; encourage the improvement of the self-esteem, establish mutual objectives.

- Domain 5 - Perception / cognition - we identified two nursing diagnoses in the matter, highlighted below:

Diagnosis: Deficient knowledge characterized by inadequate follow up of instructions, related to cognitive limitations, lack of exposure to the issue, low schooling level. 16

Indicators (NOC): knowledge: cares in disease and treatment procedures. 17

Interventions (NIC): improve mood to learn; provide instructions that facilitate adaptation and understanding of clarifications and instructions for better quality of life; teach about health-disease process; facilitate learning with lectures, workshops; stimulate increase of self-care; perform education in health, periodically.

Diagnosis: disturbed sensory perception characterized by disorientation, change in usual response to stimuli, related to electrolyte imbalance, psychological stress. 16

Indicators (NOC): sensory function: proprioceptive. 17

Interventions (NIC): keep control of dementia; identify potential hazards in the environment of the patient; advice on the reality; refer to psychological service.

- Domain 6 - Self-perception - we found two nursing diagnoses, one real and another one of risk, described below:

Diagnosis: body image disorder characterized by a changed vision about the own body on appearance, structure or function, related surgical procedures and chronic disease. 16

Indicators (NOC): self-esteem, psychosocial adaptation: life change. 17

Interventions (NIC) to provide assistance in self-care; increase the mood to a better socialization; encourage the patient to identify their strengths; help the patient to accept its dependence of others; refer to psychological service; using cognitive techniques to promote the improvement of self-perception.

Diagnosis: risk of powerlessness feeling related to the limitations caused by the disease. 16

Indicators (NOC): personal autonomy. 17

Interventions (NIC) support decision-making; stimulate the coping of sexual
problems; provide emotional support; refer to psychological service.

- **Domain 7 - Roles and relationships** - we identified only one nursing diagnosis, real, in this domain, described below:

  Diagnosis: **impaired social interaction** characterized by changed vision about the own body on appearance, function or structure, related to disorder in self-concept, limited physical mobility, absence of significant people.  

  Indicators (NOC): social engagement.  

  Interventions (NIC): improving self-esteem, encourage: socialization, encourage the improvement of coping; assist patient / family to identify reasons of isolation, provide healthy social environment; include significant people in discussions and decisions.

- **Domain 8 - Sexuality** - we identified one nursing diagnosis, real, listed below:

  Diagnosis: **sexual dysfunction** characterized by change in achieve sexual satisfaction; real limitations imposed by the disease, associated with changed body structure of the function, fatigue caused by the chronic disease. 

  Indicators (NOC): sexuality.  

  Interventions (NIC): counsel about sexual relationship; promote engagement of the partner in the treatment, strengthening the bond; advice on caloric energy control.

- **Domain 9 - Coping / stress tolerance** - there are four real nursing diagnoses identified in this domain, described below:

  Diagnosis: **Ineffective coping** characterized by changes in lifestyle, fatigue, verbalization of coping inability, related with uncertainties, changes in family role.  

  Indicators (NOC): psychosocial adaptation: life changes, coping.  

  Interventions (NIC): counseling (offer concrete information, encourage the expression of feelings); help patients identify stressor factors, use techniques that provide improvement for resolution of the problem; provide improvement of the support system (involving family / significant people / friends in care and in coping of the disease); promote family involvement in treatment, strengthening the bond; encourage for that the patient establishes mutual objectives.

  Diagnosis: **fear** characterized by increased tension, nervousness, and decreased self-security, related to the process of dependency of the family members.  

  Indicators (NOC): self-control of fear.  

  Interventions (NIC) reduce the anxiety, encourage verbalization of feelings, perceptions and fears; improve the coping seeking to understand the perspective of the patient about the feared situation; determine the capacity of decision-making; provide emotional support, encourage the coping of the fear.

  Diagnosis: **anxiety** characterized by tension, nervousness; expressed concerns due to changes in life events; fear of losing vascular access, related death threat, unconscious conflicts about life objectives.  

  Indicators (NOC): self-control of anxiety.  

  Interventions (NIC): counsel, encourage the expression and vent of feelings; provide spiritual support; provide security environments; support decision-making; provide emotional support.

  Diagnosis: **health behavior prone to risk** characterized by the not acceptance in the change in health status related to negative attitude with regard to the health care, low economic status.  

  Indicators (NOC): adherence behavior and health promotion.  

  Interventions (NIC): counsel (establish a trust relationship); support decision-making of the patient; reduce stressor factors by change; teach about the health-disease process; provide group therapy; refer to psychological service.

- **Domain 10 - Principles of life** - in this domain, we identified two nursing diagnoses: one real and another one of welfare, described below:

  Diagnosis: **conflict of decision** characterized by questionings about personal values when trying to reach a decision, related to kidney transplantation and change of treatment modality.  

  Indicators (NOC): decision-making.  

  Interventions (NIC): counsel (establish a therapeutic relationship based on trust and respect); support the decision-making of the patient; establish mutual objectives and advice on the importance of renal transplantation; lead the patient to a substitutive treatment that is effective and brings for it more convenience.

  Diagnosis: **mood for increased spiritual welfare** characterized by raised hope in treatment, optimism, and increased religiosity.  

  Indicators (NOC): spiritual health. 

  Interventions (NIC) provide spiritual support; encourage patients to participate of the spiritual support group; offer privacy and quiet moments for the spiritual activities; facilitate the process of meditation; stimulate
religious rituals both to participation and the expression of these patients.

- **Domain 11 - Security / protection** - in this area, we found two diagnoses, being one of risk and another one real, highlighted below:

  Diagnosis: risk of infection related to invasive procedures, environmental exposure to increased pathogens, chronic disease, and inadequate secondary defense.\(^{16}\)

  Indicators (NOC): severity of infection.\(^ {17}\)

  Interventions (NIC): supervise the skin, preventing injuries; promoting protection against infections; make care with the catheter; adopt measures for control of infection.

  Diagnosis: impaired skin integrity characterized by disruption of the skin surface, invasion of body structures, related to mechanical factors, medications, or changes in the water status or excess of liquids.\(^ {16}\)

  Indicators (NOC) access for hemodialysis.\(^ {17}\)

  Interventions (NIC): create routines for the performance of catheter dressings; monitor the patient’s weight before and after dialysis; monitor laboratory results; monitor the sites of punches, alternating them; inspect the skin, assessing pseudo-aneurysms; administer prescribed medication.

- **Domain 12 - Comfort** - in this domain, we found two real nursing diagnoses, described below:

  Diagnosis: acute pain characterized by facial expression, related to damaging agents (biological, physical, chemical, psychological).\(^ {16}\)

  Indicators (NOC): pain level, pain control.\(^ {17}\)

  Interventions (NIC): reduce the anxiety; administer painkillers prescribed; apply heat or cold packages; perform massages, in order to relax the patient.

  Diagnosis: chronic pain characterized by depression, fear of a new injury, related with chronic physical disability.

  Indicators (NOC): pain control.\(^ {17}\)

  Interventions (NIC): administer painkillers prescribed; apply heat or cold packages; encouraging implementation of therapy with physical exercises: joint mobility; encourage alternative therapy of healing and relaxation.

- **Domain 13 - Growth / development** - this area, we identified one real nursing diagnosis:

  Diagnosis: failure in the ability of adults to improve characterized by difficulty of concentration / memory, mood changes, related with depression.\(^ {16}\)

  Indicators (NOC): self-care: activities of daily living.\(^ {17}\)

  Interventions (NIC): assistance to promote self-care of the patient related to practice activities of daily living; guide, encourage and monitor the practice of self-care; encouraging to the coping of the situation; monitor fluid intake and feed; reduce the physical discomforts capable to interfere in the cognitive function and self-monitoring / regulating of the activity; stimulate the support of the family, of friends for a behavior that promotes health.

  From the data obtained, it was found 30 nursing diagnoses, distributed in 13 domains of nursing of NANDA. The domain that had a higher incidence of diagnoses in the patients in hemodialysis treatment was the number four, referring to the activity / rest. These results were expected, since this domain refers to the welfare or normality of function, as well as the strategies used to maintain control and increase the welfare of patient with chronic renal failure.

  Among the diagnoses detected, 24 were real diagnoses, four of risk and two of welfare, it has not been detected syndrome diagnosis. These results show the importance of the nursing professional, who work in nephrology, follow the recommendations of the Brazilian Ministry of Health, in relation to the promotion, protection, maintenance and restoration of health and prevention of diseases. To solve the real diagnoses, the nurse should plan interventions to the restoration of the health; for the risk diagnoses, it should develop protection to the health and prevention of diseases and for welfare diagnostics, it should perform interventions to promotion, protection and maintenance of health.

  As interventions to solve the diagnoses found, we used the Classification of Nursing Interventions - Classificação das Intervenções de Enfermagem (NIC), which was created to standardize the language used by nurses in the decision of their specific behaviors.

  Given these data, it is essential that nurses act with the nursing process to systematize the nursing care, from the stage of data collection with identification of the defining characteristics and related factors, passing through the establishment of nursing diagnoses, planning, implementation and assessment of patients.

**DISCUSSION**

With regard to the characteristics of the study population, some authors, who also
studied patients in hemodialysis treatment, found more than 60% of male patients, with average age of 40 years old.18,9

The advances of technology in the area of dialysis have contributed, substantially, to the increase in the survival of patients with renal diseases. However, the permanence by indefinite time in dialysis treatment can interfere in the life quality of this population, in the emotional aspects, suggesting that patients with longer time of dialysis treatment show progressive impairment of family and social relationships.19

Make a previous survey on the knowledge and experiences of chronic renal patient facilitates understanding of the real learning needs of these patients and, also, is important to change the attitude in face of the chronic kidney patient, avoiding prescriptive and controlling decisions, maintaining a relationship capable to understand their experiences, and give responses to situations that depend on specialized and sensible care.20

The real nursing diagnosis describes human responses to the health conditions / life processes that exist in an individual, family or community. And it is holding by defining characteristics (manifestations, signs and symptoms) that are grouped into track patterns and related interferences. Risk nursing diagnosis describes human responses to health conditions / life processes that may develop in an individual, family or vulnerable community. It is supported by risk factors that contribute to an increased vulnerability. Welfare nursing diagnosis describes human responses to levels of welfare in an individual, family or community that have the potential to increase or improve this welfare.16

The preparation of the plan of care to patients on hemodialysis treatment may aid the development of an adequate nursing care to the patient in hemodialysis treatment, providing better conditions to endure the situations experienced during treatment, while nursing professionals are directly engaged in the process that involves hemodialysis, including the performance for resolving the possible complications.

**FINAL CONSIDERATIONS**

From the interaction with the patients with chronic renal failure on hemodialysis treatment, we can raise the real needs of these patients in their day-to-day, expanding our vision about this disease and how it affects the lives of these patients.

We established 30 nursing diagnoses present in the 12 patients of the study, demonstrating the high incidence of a nursing problem in these patients.

These diagnoses organize and systematize actions inherent to the human being so that the expected results are achieved through the choice of interventions that can achieve the objectives of the planned treatment. The link between NANDA / NIC / NOC favors diagnostic reasoning for each problem encountered in patients with chronic renal failure and, consequently, results and specific interventions.

Therefore, from this study it was possible to raise the defining characteristics, allowing the development of the nursing process for patients on hemodialysis treatment, which established the diagnosis principles of nursing of NANDA, we elaborated nursing interventions, according to the NIC, to patients with renal disease, elaborating, thus, a protocol of nursing care to patients on hemodialysis treatment.

Within this context, it is believed that the SAE allows nurses to coordinate the provided assistance, identifying the individual needs of each patient, providing attendance means aimed at better adequacy to the treatment, thus ensuring a better life quality, enjoying every moment to create change conditions, when it is necessary.

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