ORIGINAL ARTICLE

NURSING DIAGNOSES AND INTERVENTIONS FOR CARDIOLOGICAL PATIENTS IN PALLIATIVE CARE

DIAGNÓSTICOS E INTERVENÇÕES DE ENFERMAGEM PARA PACIENTES CARDIOLÓGICOS EM CUIDADOS PALLIATIVOS

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ABSTRACT

Objective: to characterize the clinical and sociodemographic profile and to identify the main Nursing diagnoses and interventions. Method: this is a quantitative, cross-sectional, retrospective and descriptive study with 23 cardiac patients with indication of palliative care. The database was submitted to statistical analysis. Results: the sample was characterized by female patients, 70 years old, married and with complete primary education, with chronic kidney disease, acute myocardial infarction, myocardiolapathy, hypertension and Diabetes Mellitus. It is revealed that the Nursing diagnoses "Deficit in self-care for eating" and "Deficit in self-care for bathing" were the most frequent. Their interventions included control of nutrition, the environment, enteral feeding care, bed placement, comfort massage, nail care, hair and scalp care, oral health maintenance, and bath in bed. Conclusion: there was a lack of care focused on spiritual and psychological aspects and the lack of evidence in the literature that strengthens some specific Nursing diagnoses and interventions for the studied population. Descriptors: Nursing Palliative Care; Heart Failure; Palliative Care; Nursing; Cardiology; Intensive Care Unit.

RESUMO

Objetivo: caracterizar o perfil clínico e sociodemográfico e identificar os principais diagnósticos e intervenções de Enfermagem. Método: trata-se de um estudo quantitativo, transversal, retrospectivo e descritivo com 23 pacientes cardíacos com indicação de cuidados paliativos. Realizou-se a coleta de dados com um questionário. Submeteu-se o banco de dados à análise estatística. Resultados: caracterizou-se a amostra por pacientes do sexo feminino, com 70 anos, casados e com ensino fundamental completo, portadores de doença renal crônica, infarto agudo do miocárdio, miocardiolapatia, hipertensão arterial e Diabetes Mellitus. Revela-se que os diagnósticos de Enfermagem “Deficit no autocuidado para a alimentação” e “Deficit no autocuidado para o banho” foram os mais frequentes. Detalha-se que suas intervenções foram o controle da nutrição, do ambiente, os cuidados com alimentação enteral, o posicionamento no leito, a massagem de conforto, os cuidados com unhas, cabelo e couro cabeludo, a manutenção da saúde oral e a realização de banho no leito. Conclusão: evidenciaram-se uma assistência pouco focada em aspectos espirituais e psicológicos e a falta de evidências na literatura que fortaleçam alguns diagnósticos e intervenções de Enfermagem específicos para a população estudada. Descriedores: Enfermagem de Cuidados Paliativos; Insuficiência Cardiaca; Cuidado Paliativo; Enfermagem; Cardiologia; Unidade de Terapia Intensiva.

RESUMEN

Objetivo: caracterizar el perfil clínico y sociodemográfico, identificar los principales diagnósticos e intervenciones de enfermería. Método: estudio cuantitativo, transversal, retrospectivo y descriptivo, con 23 pacientes cardíacos con indicación de cuidados paliativos. Se realizó la recolección de datos con un cuestionario. Se sometió la base de datos al análisis estadístico. Resultados: se caracterizó la muestra por pacientes del sexo femenino, con 70 años, casados, y con enseñanza fundamental completa, portadores de enfermedad renal crónica, infarto agudo de miocárdio, miocardiolapatia, hipertensión arterial y diabetes mellitus. Los diagnósticos de enfermería “Deficit en el autocuidado para alimentación” y “Deficit en el autocuidado para baño” fueron los más frecuentes. Sus intervenciones fueron el control de la nutrición, del ambiente, cuidados con alimentación enteral, colocación en el lecho, masaje de confort, cuidados con uñas, cabello y cuero cabelludo, mantenimiento de la salud oral y la realización de baño en el lecho. Conclusión: se evidenció una asistencia poco enfocada en aspectos espirituales y psicológicos y falta de evidencias en la literatura que fortalezcan algunos diagnósticos e intervenciones de enfermería específicas para la población estudiada. Descriptores: Enfermería de Cuidados Paliativos; Insuficiencia cardíaca; Cuidado Paliativo; Enfermería; Cardiología; Unidad de terapia intensiva.

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INTRODUCTION

It is pointed out that heart failure (HF) has been an important public health problem, and considered as a new epidemic, with high mortality and morbidity, despite advances in current therapy.¹

It is noted that the projections show that the prevalence of HF will increase 46% from 2012 to 2030, resulting in more than eight million people over 18 years of age with HF. The likely prevalence is probably due to an increase in life expectancy, since HF predominantly affects the highest age groups.¹

It is known that HF is considered the final pathway of all cardiac diseases and the occurrence of this syndrome can have its origin in primary causes (disorder in muscle contraction due to a primary abnormality of the cardiac muscle, such as occurs in cardiomyopathies and myocarditis), or secondary (coronary atherosclerosis, which causes ischemia and myocardial infarction, as well as cardiac valvular pathologies, systemic arterial hypertension, among others).²

It is pointed out that the prevalence of HF is increasing, especially, in the elderly and is a progressive condition associated with high morbidity and mortality, since, with its progression, patients become scared and uncomfortable,² and, even with the available treatment advances, the conventional therapy may not sufficiently reduce patient suffering and improve their quality of life.²

Palliative care is indicated because intervention in patients with advanced HF presents greater benefits in quality of life reducing anxiety and depression and increasing spiritual well-being compared to the absence of palliative care in these patients.²

Palliative care is defined by the World Health Organization as an approach or treatment that improves the quality of life of patients and their families in the face of diseases that threaten the continuity of life.³

Relief of suffering, compassion for the patient and their relatives, impeccable control of symptoms and pain, the quest for autonomy and the maintenance of an active life, for as long as it lasts are known to be some of the principles of palliative care.³

It is then deemed necessary to evaluate and control not only pain, but all symptoms of a physical, social, emotional and spiritual nature. In addition, for the palliative care treatment, it is also necessary to combine the skills of a multi-professional team to help the patient adapt to the life changes imposed by the disease and to promote the reflection that is necessary to cope with this life-threatening condition for patients and relatives.³

The process of caring is inserted in the nurse’s professional practice, which interfaces with all members of the health team, with the family, with the community, and also with the environment in which they perform their work. The nurse is introduced, obligatorily, in a direct, procedural, dialogic, interactive and subjective relationship inherent in the care of human life.⁴

It is observed that the professional’s work comprises tasks and relationships ranging from interaction with each client, to more complex articulations with family members, multi-professional and institutional health team, since it permeates different faces of the care process, from the entrance, to the patient’s discharge, whether due to hospital discharge or death.⁴

It is specifically believed, that, in the context of palliative care, nurses play their role by developing practical and managerial actions in greater harmony with the entire health team, whose professionals, at this specific time of therapeutic treatment, converge their discourses to the structure of the before the healing structure.⁴

The Nursing process is represented as a systematic and humanized method of care, consisting of five steps: research, Nursing diagnosis, planning, implementation or Nursing interventions, and evaluation⁵.

It is understood the same as a specific professional work that presupposes a series of dynamic and interrelated actions for its accomplishment, that is, the adoption of a certain method or way of doing (Systematization of Nursing Care) is indicated, based on a system of values and moral beliefs and in the technical-scientific knowledge of the area.⁵

They are defined in the second phase of the Nursing process - Nursing diagnosis as a tool that allows individualizing care, transform Nursing practice, serve as a basis for interventions, organize Nursing knowledge, introduce the scientific method in the profession, among other possibilities in order to identify the existing problems - the strong and essential points.⁵

These systems are used in the practice of the profession with great significance for the development of Nursing, establishing standards of care that can be used anywhere in the world, as well as allowing an improvement in the quality of care through systematization.⁵
OBJECTIVE

- To identify the main Nursing diagnoses and interventions in cardiac patients in palliative care;
- To characterize the sociodemographic profile and clinical profile of cardiac patients in palliative care;
- To identify the main Nursing diagnoses and interventions of cardiac patients in palliative care.

METHOD

A quantitative, cross-sectional, retrospective and descriptive study was carried out, whose quantitative variables were expressed by mean and standard deviation and the qualitative variables, by absolute frequency (N) and relative frequency (%).

It was a population composed of 23 cardiac patients, with indication of palliative care, hospitalized in the Clinical Intensive Care Unit of a public institution specialized in Cardiology and linked to the Health Department of the State of São Paulo.

This research was carried out in a tertiary-level hospital service in the cardiovascular area, of a public character, located in the south of the city of São Paulo, and data collection was performed at the clinical ICU of this institution.

The inclusion criteria, which included cardiac patients admitted to the intensive care unit after palliative care, were analyzed, and the exclusion criteria were patients in palliative care directed to the pediatric population, patients suffering from oncological pathologies or other pathologies of non-cardiac origin.

Data was collected from March to August 2017, using a collection instrument containing the demographic data, date of initiation of palliation, date of hospital stay, medical diagnosis, clinical data, diagnosis Nursing interventions and Nursing interventions.

The open questions were compiled in Excel, after completing the instrument, using the North American taxonomy of Nursing diagnosis (NANDA) and the classification of Nursing interventions (NIC), already adopted by the institution, for the specific description of each diagnosis and Nursing intervention listed to each patient of the study, and then the comparison and the grouping between them were given.

This database was submitted to statistical analysis by checking the absolute (N) and relative frequencies (%).

RESULTS

The sociodemographic profile of the study was characterized, predominantly, by female patients, aged approximately 70 years old, with completed elementary education I and married.

It was detailed, in relation to the clinical profile, that the most frequent previous pathologies were chronic renal disease, with 47.8% of the sample, acute myocardial infarction, with 26.1%, ischemic cardiomyopathy, with 21.7% and cardiorespiratory arrest, with 17.4%.

It was noticed that the less frequent pathologies found were cerebrovascular accident, with 13% of the sample; syncope, chronic obstructive pulmonary disease, cardiorenal syndrome, aortic stenosis, dilated and chagasic cardiomyopathy, with 8.7% of the sample of each cited pathology.

It was identified that, 78.3% of the patients in the sample were hypertensive; 47.8%, were dyslipidemic; 43.5% had atrial fibrillation (AF); 39.1%, had diabetes, and 30.4% had hypothyroidism.

It was evidenced, in relation to the clinical profile of ICU admission, that the most frequently encountered medical diagnoses were HF profile C, representing 45.5% of the sample, followed by acute chronic renal disease, with 43.5%. Cardio-embolic cerebrovascular accident, atrial fibrillation with high ventricular response, acute renal injury and pneumonia were found to have the same frequency, with 21.7% of the sample of each one of the pathologies, and that slightly more than half of the (56.6%) presented reduced left ventricular ejection fraction, being 0% borderline and 43.5% preserved.

It is noteworthy that, of the patients who presented as a cause of ICU admission, the C profile (45.5%), 80% of them had reduced left ventricular ejection fraction, being that the mean ejection fraction was 40.3%, the minimum was 20%, and the maximum was 68%.

It was based on the NANDA / NIC taxonomy, instituted by the study hospital and related to the Nursing process, listing the Nursing...

It was demonstrated that, approximately 90% of the sample was shown to have “impaired spontaneous ventilation” and “Impaired skin integrity risk”; 87% had “decreased cardiac output risk” and “impaired tissue integrity”; 83% presented “Risk of constipation”; 70% presented “Excessive fluid volume”; 65%, “Ineffective renal perfusion risk”; 52% had “unstable glycemia risk,” and the other least frequent were “Ineffective protection” with a frequency of 26%, and “Acute pain”, which appeared in only 4%.

It was noticed that the ND “Deficit in self-care for food” had, as defining characteristics, the impaired ability to open containers, to carry food to and mouth and to swallow food related to alterations of cognitive function, musculoskeletal and neuromuscular and the use of naso-enteral catheter.

It was verified that the main Nursing interventions listed for this diagnosis were the control of nutrition, the environment, the care with naso-enteral feeding and the reflux test, the correct positioning of the patient in the bed, the supply and the aid of the meal when necessary and the evaluation of pain when it is present.

It was presented the ND “Deficit in self-care for the bath” as defining characteristics, the impaired ability to access the bathroom, to wash the body, to access the water source and to perform oral hygiene related to changes in cognitive function, to musculoskeletal and neuromuscular impairment, physical mobility impairs and fatigue.

Among the main Nursing interventions for the above-mentioned diagnosis, nail, hair and scalp care, maintenance of oral health, bathing in the bed and massage of comfort.

It is known that fatigue was one of the main related factors of this ND, a fact that is in line with the diagnosis of “Impaired Physical Mobility”, which had, as related factors, “activity intolerance” and “prescribed restrictions of movement “. Being an ND characterized by dyspnea on exertion, difficulty in turning and uncoordinated movements.

As interventions for ND Physical Impairment, rest, bed positioning, change of position, skin care, protection of bony prominences and prescribed exercises when appropriate were highlighted as interventions for ND.

The following defining characteristics were presented for the “Impaired Spontaneous Ventilation” for the ND: dyspnea, decreased oxygen saturation and accessory muscle use related to accessory muscle fatigue, with emphasis on respiratory monitoring, assessment of the level of consciousness, blood gas monitoring and attention to the signs of cyanosis of extremities.

For the ND “Excessive fluid volume”, due to edema, dyspnea and changes in the respiratory pattern related to the failure of regulatory mechanisms and cardiac pump failure were characterized, such as Nursing interventions, control and electrolyte monitoring, water control, renal function and 45° decubitus.

It was evidenced that the ND “Risk of infection”, as a risk factor, was increased by environmental exposure to pathogens and invasive procedures, including catheters, catheters, cannulae, all of which were common in intensive care units, and the main interventions were as follows: Nursing care with catheters, lesions and incisions, skin supervision, nutritional therapy and exchange of wall materials.

It was noted that the ND “Risk of impaired skin integrity” presented, as risk factors, the Braden scale below 16 and, as interventions, skin supervision and dressing.

The defining characteristics of injured or destroyed tissue related to extremes of age, temperature, mechanical factors, infection and impaired physical mobility were highlighted for ND, “Impaired tissue integrity”, as well as the supervision protection against infections.

It was pointed out that the ND “Risk of constipation” presented, as risk factors, insufficient fiber and fluid intake, recent changes in the environment and naso-enteral tube feeding, and her Nursing interventions were intestinal control and monitoring two hydro-aerial noises.

As risk factors for “unstable glycemic risk”, the use of enteral nutrition and insufficient dietary intake, and, as the main interventions, the control of hyperglycemia and hypoglycemia, were presented as risk factors for “unstable glycemic risk”.

It was noticed that the ND “Risk of ineffective renal perfusion” presented, as risk factors, the decrease in urinary volume, urea and creatinine changes and the therapeutic regimen. The most important Nursing interventions were hydro-electrolytic control, renal function monitoring and measurement of urinary volume.
It was reported that the "ineffective protection" ND presented, as defining characteristics, changes in coagulation related to pharmacological agents and the treatment regimen. Risk identification, precautions against bleeding and monitoring of laboratory tests were chosen as Nursing interventions for this diagnosis.

It was verified that the ND "Acute pain" presented, as a defining characteristic, the self-report of intensity using scales related to the physical injurious agent, and the Nursing interventions were the control and assistance to the patient controlled analgesia.

**DISCUSSION**

It was demonstrated, by a study of USP School of Nursing that the comorbidities most frequently found in hospitalized patients with HF had ischemic etiology and reduced ejection fraction, arterial hypertension and previous acute myocardial infarction. It is observed that this fact is similar to the findings in this study, where the same comorbidities were found.

As an additional challenge for HF patients, 60% of the patients died suddenly in relation to the prognosis. The left ventricular ejection fraction, the presence of ventricular tachyarrhythmias and Diabetes Mellitus could be predictive criteria of sudden death, and the presence of thromboembolic phenomena, previous CRA and other complex ventricular arrhythmias also contributed to the evaluation of reserved prognosis. It should be noted that these data are in agreement with the results of this study.

It was found that according to the third chronic guideline of heart failure, the etiology of heart failure is associated with dilated and ischemic heart disease, uncontrolled systemic arterial hypertension and Diabetes Mellitus and hospital admissions due to decompensation of this condition.

It is stated that patients with this clinical profile may be targets of Palliative Care, a fact that reinforces the practice of palliative care instituted for study patients in the institution in question.

According to the National Academy of Palliative Care and in relation to heart diseases, as end-stage criteria, the symptoms of HF during rest, left ventricular ejection fraction less than 20%, a new arrhythmia, cardiorespiratory arrest, syncope or cerebrovascular accident and frequent visits to the emergency room due to the symptoms, and such data are in agreement with the clinical profile of the sample of this study.

In view of these facts, in this study, the indication of palliative care was composed, for the most part, of patients with symptoms refractory to conventional treatment and patients with serious diseases with prolonged hospitalization out of therapeutic possibilities.

It was evidenced that nurses' skills should be focused on the systematic evaluation of signs and symptoms and to help the multi-professional team in setting priorities for each client, so that the therapeutic objectives are achieved.

It was pointed out, in a review study with a population similar to the one in this study, the main Nursing diagnoses were "Decreased cardiac output", "Excessive fluid volume", "Activity intolerance", "Impaired skin integrity ", "Impaired gas exchange ", "Poor knowledge ", "Risk of falls "and "Impaired physical mobility".

It was found that the similar diagnoses of this review with this study were "Cardiac output decreased", "Excessive fluid volume" and "Impaired physical mobility", since HF limits the individual's tolerance for mobility and cause water retention.

It was identified that the non-pharmacological measures, with interventions of all the interdisciplinary team, are very important in the approach of patients with fatigue, one of the main factors related to ND "Deficit in self-care for the bath", mainly taking into account the few drug treatment options.

It has been shown that some drugs, such as anti-hypertensives and diuretics, and pathologies such as hypothyroidism, decompensated DM, hydro-electrolytic disorders, hypoxia, heart failure, among others, were considered as causes of patient fatigue palliative care and, according to the National Academy of Palliative Care, physical exercise programs can bring benefits in functionality and quality of life indexes, even in patients with advanced disease, in addition to psychosocial therapies, leisure activities, and daily activities, measures for sleep hygiene and psychological, family and nutritional support have been useful in the global care of these patients.

It was observed in a study that the ND "Activity Intolerance" identified, as a defining characteristic, "Dyspnea on exertion" in some patients. It is reported that, in this study, dyspnea was the defining characteristic of ND "Decreased cardiac output", "Impaired spontaneous ventilation" and "Excessive fluid volume".
The National Academy of Palliative Care is recommended as non-pharmacological care for the relief of dyspnea, elevated decubitus, breathing exercises, assessment of posture, psychic, spiritual and social support, planning of restraining activities of saving energy and relaxation techniques. Therefore, the “prescribed exercise” is justified as one of the Nursing interventions listed.

It has been noted, according to the literature that in relation to ND’s “Impaired tissue integrity” and “Impaired skin integrity”, during the natural physiological process of dying, the body derives blood for the maintenance of vital organs, making prevention difficult of external aggressions to the skin, which may explain the high frequency of these NDs in the study, in addition to the possible vascular and circulatory factors.

According to the National Academy of Palliative Care and in relation to the ND “Risk of Constipation”, it was shown that changes in bowel habits were common complaints among patients undergoing palliative care, were determined by baseline pathology and / or treatment at directed, palliative or not.

Constipation was considered, where possible, by non-pharmacological measures, such as increased fluid and fiber intake in the diet, physical activity and respect for patient privacy in the use of the toilet and, where possible, the patient should be asked about his / her intestinal habit.

It was found, for “Risk of Constipation” that the interventions prescribed for the patients of the study were only intestinal control and monitoring of airborne noises.

It is suggested by the Brazilian Society of Diabetes that, in relation to the ND “Unstable glycemia risk”, consideration should be given to a less rigid glycemic control of the patients receiving palliative care, but also that marked hyperglycemia should be avoided and especially hypoglycemia, aiming to reduce suffering and worsen the quality of life of patients, caregivers and the family, a fact presented as a Nursing intervention for the control of hyperglycemia and hypoglycemia for study patients.

According to the Brazilian Ministry of Health, moderate to severe pain is reported in 60% to 90% of patients with advanced cancer. The ND “Acute pain”, but in this study, this ND was frequent in only 4% of the sample, which evidences the absence of pain in cardiological patients, however, 100% of the patients had, as Nursing interventions, pain control, even if this diagnosis was only listed for 4% of the sample, which may also show an efficient analgesic support by the multi-professional team.

It was verified, in a systematic review that one institution carried out a Nursing process in 20 elderly people hospitalized in palliative care with heart failure and who presented as one of their diagnoses the “Risk of infection” and the “Deficit in self-care”, but, there was no discussion about them in this study.

It was found that Nursing diagnoses and interventions that were not discussed indicated the difficulty of comparing the present findings with those of other studies.

It was demonstrated that, in this study, the identified Nursing diagnoses and care involved, only and exclusively, the care related to the physiological domains, focusing mainly on the clinical part, being only one of the parts to be developed.

It was noticed that the care related to coping, stress tolerance, anxiety related to death and the process of dying, the principles of life and spirituality were not reported, so little discussed, processes that are as important as clinical, when refers to a patient in palliative care.

It is known that suffering needs to be taken care of in the physical, psychic, social and spiritual dimensions, and this perspective of holistic care is fundamental, because it provides dignity to the person, in the final stage of life.

CONCLUSION

It was considered that the clinical and socioeconomic profile of the cardiac patient in palliative care, hospitalized in the ICU of the mentioned hospital, was identified, and the most frequent previous pathologies were acute chronic kidney disease, acute myocardial infarction, ischemic myocardiopathy, previous cardiorespiratory arrest, systemic arterial hypertension, dyslipidemia, atrial fibrillation, Diabetes Mellitus and hypothyroidism.

They have become increasingly important palliative care in health systems and services since, in addition to symptom control, spiritual and emotional support should be provided to patients and their families for the purpose of providing holistic care, however, it was evidenced that these aspects were not reported in this study.

It was verified that both the diagnoses, and the Nursing interventions were all related to the physiological domain of the patient, presenting care that was not focused on the
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spiritual and emotional aspects of the cardiac patient in palliative care.

It is concluded that this study had, as a limitation, the absence of scientific evidence in the literature that strengthened some specific Nursing diagnoses and interventions for cardiac patients in palliative care, since it was not possible to relate some of the results found.

It has become relevant to propose a study that evidences a new Nursing instrument in order to document its diagnoses and interventions, which encompass the patient's needs through a holistic view, contemplating the physiological as well as the spiritual and emotional.

After the end of this study, we propose the creation of a group of palliative care studies in the institution that works with educational actions for the Nursing team aiming at improving care and individualized care for this group of patients.

REFERENCES

11. Parry S. The quest for competencies: competency studies can help you make HR decision, but the results are only as good as the study. Trainingn. 1996 July. 33:48-5.


