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REVIEW

Ações de enfermagem ao paciente com insuficiência cardíaca: uma revisão integrativa

Nursing actions for patients with heart failure: an integrative review

Intervenciones de enfermería para pacientes con insuficiencia cardíaca : una revisión integradora

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ABSTRACT

Objective: to identify studies on educational activities for patients with heart failure performed by nurses and evaluate their importance, in order to highlight methods, strategies and new concepts in the area. **Method:** this is an integrative literature review, with 15 articles selected in the three databases, Lilacs, Medline and Capes Journals Portal, published between 1995 and 2010. **Results:** in the analysis, it was observed the prevalence of research on the benefits of health education provided in various performance scenarios, especially during the nursing consultation, the use of means of distance communication and other means. **Conclusion:** the education practice should be part of daily management starting as early as possible, in hospitals and extended after discharge, observing the increase of knowledge of the disease by the patient and the purpose of pharmacological and nonpharmacological interventions. **Descriptors:** Education, Heart failure, Nursing.

RESUMO

Objetivo: identificar estudos sobre as ações educativas aos pacientes com insuficiência cardíaca realizadas pelo enfermeiro e avaliar sua importância a fim de destacar métodos, estratégias e novos conceitos na área. **Método:** trata-se de uma revisão integrativa da literatura, na qual foram selecionados 15 artigos nas bases de dados Lilacs, Medline e no Portal de Periódicos da Capes, publicados entre 1995 e 2010. **Resultados:** na análise, observou-se a prevalência de pesquisas sobre os benefícios da educação em saúde prestada nos mais variados cenários de atuação, principalmente durante a consulta de enfermagem, no uso de meios de comunicação à distância e por outros meios. **Conclusão:** a prática de ensino deve fazer parte do manejo diário começando o mais precocemente possível, no contexto hospitalar, e prolonga-se depois da alta, pois dessa forma observamos o aumento do conhecimento dos clientes sobre a doença e o propósito das intervenções farmacológicas e não farmacológicas. **Descritores:** Educação, Insuficiência cardíaca, Enfermagem.

RESUMEN

Objetivo: identificar los estudios sobre las actividades educativas para los pacientes con insuficiencia cardíaca realizados por personal especializado y evaluar su importancia con el fin de considerar los métodos, estrategias y nuevos conceptos en el área. **Método:** Se trata de una revisión integradora de la literatura, en la que se seleccionaron 15 artículos en bases de datos Lilacs, Medline y Revistas Portal Capes, publicados entre 1995 y 2010. **Resultados:** en el análisis, se observó la prevalencia de la investigación sobre los beneficios de la educación sobre la salud dispensada en los diversos escenarios de actuación, especialmente durante la consulta de enfermería, el uso de medios de comunicación a distancia y otros medios. **Conclusión:** la práctica de la enseñanza debe ser parte de la gestión diaria empezando tan pronto como sea posible, en un contexto hospitalario, y se extiende después del alta, porque de esa manera se observa el incremento en el conocimiento del cliente sobre la enfermedad y los efectos de las intervenciones farmacológicas y no farmacológico. **Descriptor:** Educación, Insuficiencia Cardíaca, Enfermería.

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INTRODUCTION

H

Heart failure (HF) is characterized as a clinical syndrome where the heart is unable to receive adequate blood flow, and then, it is unable to provide an adequate blood supply to organs and tissues.¹ This ineffective tissue perfusion is mainly caused by reduced cardiac output initially shown during exercise, and with the progression of the disease, it decreases the effort until its reduction when resting. It also occurs elevated pulmonary pressures and systemic venous. The main etiology in Brazil is the chronic ischemic heart disease associated with hypertension.¹

In 2007 in Brazil, cardiovascular diseases had 72% of deaths and represented the third leading cause of hospitalizations in the Unified Health System (SUS). Of them, heart failure were 25% of hospitalizations, 6% of deaths, and the consumption of 3% of SUS resources.²

The HF treatment aims to maintain the clinical stability of the patient.³ Its pharmacological treatment converts enzyme inhibitors, angiotensin II (IECA) inhibitors, beta-blockers (BB), blockers of angiotensin receptor antagonists II (BRA), aldosterone antagonists, diuretics, hydralazine, nitrates, digoxin, anticoagulants and antiplatelet agents, antiarrhythmic agents and calcium channel blockers. While its non-pharmacological treatment includes a restrictive diet, vaccinations, physical exercise, weight monitoring and psychological support^{1,3,4,5} to improve the quality of life.

Health Education can be defined as a process that seeks to improve the knowledge and skills, influencing the attitudes needed from patients to maintain adequate health behavior. It involves aspects regarding a complex treatment and changes in lifestyle, which causes a major impact on quality of life of those with the disease, as well as their families, requiring a permanent research of the health team.⁴

Clinical monitoring of patients is essential for their of the clinical presentation, response to treatment (both pharmacological and non-pharmacological) and prognostic evaluation. HF management studies with patients suggest that intensive monitoring by the multidisciplinary team can reduce the morbidity of heart failure. In this regard, it must be highlighted the importance of health education on compliance, pharmacological and non-pharmacological to avoid complications as clinical decompensation, hospitalization and increased mortality rate.^{3,4}

To identify studies about the education of patients with heart failure performed by nurses and evaluate their importance to highlight methods, strategies and new concepts in the area.

METHOD

This is an integrative review defined as a review of findings where previous studies are summarized in a systematic way to formulate inferences about a specific topic. It includes analysis of research that support for decision-making and improvement of clinical practice, allowing the synthesis of the general knowledge, in particular topics.⁶ Thus, it is a resource for evidence-based practice (PBE), contributing to future research, showing points that remain to be elucidated within the relevant topic.

The following steps were followed to elaborate the integrative review:

- 1- Establishment of the hypothesis and objectives of the integrative review;
- 2- Establishment of inclusion and exclusion criteria of articles (selection studies);
- 3- Definition and organization of information to be extracted from articles;
- 4 Analysis of the results;
- 5 Discussion and interpretation of results;
- 6- Review presentation.

The guiding research question was: What is the role of the nurses, and their importance in the education of patients with heart failure, in the multiple scenarios of action?

The inclusion criteria of the articles, initially for this integrative review were: articles published in Portuguese, English and Spanish, available in databases in full in the period from 1995 to 2010, using as descriptors: education, heart failure and nursing, articles portraying methods, interventions and scenarios in health education of patients with heart failure, demonstrating the relevance and effectiveness of each intervention.

For the selection of the articles analyzed the following databases were used: Lilacs, Medline and Capes Journal Portal. Initially, there were 285 studies found but only 15 met the inclusion criteria.

RESULTS AND DISCUSSION

In Figures 1, 2, and 3 below there is the synthesis of the articles included in this integrative review:

Figure 1

Article and Year	Author	Results	Conclusions
Searching / Caring for patients with congestive heart failure: The sensitive listening in nursing consultation. 2006	Corrêa LA; Santos I; Sousa TO; Rocha RM; Albuquerque DC.	There were 15 clients receiving nursing consultation based on sensitive listening proposed by Barbier and results of listening were classified as complaints. These complaints were divided into psychological and social domains. There was a predominance in the psychological domain (100%) and not eating everything they like and fear of decompensation was reported by 50% of them; in the social domain, the complaint does not know much about the disease was the most reported (46%). Diagnoses based on CIPE observed that 100% of patients had inadequate knowledge about the disease and the diet; 53% have poor economic conditions, and 67% have impaired drug adherence to treatment.	Through sensitive listening in nursing consultations, there is an understanding of the health-disease situation in its entirety because it helped communication between professional and patient significantly. Leading to realize that patients with heart failure or other chronic diseases require a personalized nursing monitoring and facing their reality, stressing that after implementation of the consultation to the end of the research, any of the group patients hospitalized again or decompensated their HF.
Just-in-Time Evidence-Based E-mail "Reminders" in Home Health Care: Impact on Patient Outcomes. 2005	Feldman PH, Murtaugh CM, Pezzin LE, McDonald MV, Peng TR.	Positive effects on the critical dimension of management for self-care were found in the areas of knowledge of medication to patients treated by nurses of the groups who received the basic reminder, and in the areas of knowledge of medication, diet and weight monitoring for patients treated by nurses of the supplemented group. The basic intervention had a higher cost benefit that supplemented intervention, improving clinical outcomes.	This study demonstrated the positive impact of the intervention for home care nurses, improving patient self-care, knowledge, and clinical outcomes. Also, it contributed to the understanding of the cost-benefit of selecting strategies to transform research into practice.
Just-in-Time Evidence-Based E-mail	Murtaugh CM, Pezzin LE,	The interventions studied have increased the practice of evidence-based care,	The results of this randomized studies supported the

"Reminders" in Home Health Care: Impact on Nurse Practices. 2005	McDonald MV, Feldman PH, Peng TR.	according to the patient record in the areas of patient assessment and instructions on the management of HF. The effects of interventions were positive in virtually all cases.	effectiveness of the intervention as a way of changing clinical practice among home care nurses who are geographically dispersed and spend a lot of time in the field.
Nursing consultation of the heart transplanted patient - impact of educational activities in health. 2004	Santos ZMSA; de Oliveira VLM.	During the educational activities developed in the nursing consultation, diagnoses and skills development were identified. Among the diagnoses there is the ignorance of the disease and treatment; lack of effective implementation of targeted behaviors; inadequate adaptation to the health problem and risk of lives and well-being. Regarding skills for self-care, they were detected by the gradual reduction of diagnoses during the three consultations where lack of effective implementation of targeted behaviors and risk of lives and well-being remained unchanged among the 18 patients, that is 100%.	It was concluded that the nursing consultation allows nurses to implement educational measures. In this case, it allowed conditions for the development of skills for self-care for the transplanted heart patients.

Figure 2

Article and Year	Author	Results	Conclusions
The impact of systematic education of nursing knowledge of the disease and self-care in a clinic for heart failure in Brazil: a prospective experimental study. 2007	Rabelo ER, Aliti GB, Domingues FB, Ruschel KB, Brun AO, Gonzalez SB.	It is a prospective interventional study. Through the performance of nursing consultations and questionnaires, it was found that after four visits, 55% of patients increased their knowledge about the disease, its risks, and purpose of treatment.	By increasing awareness of the disease and understanding of the purpose of each intervention, patients play a larger role in treatment, and they program actions for self-care. Thus, leaving aside the erroneous practices previously employed.
Nurse led multidisciplinary intervention in chronic heart Failure. 1998	Mcmurray J J V; Stewart S.	After analysis of data obtained in randomized trials, it can be seen that patients are undergoing multidisciplinary interventions, where the nurse has directive role, showed less readmission rate and lower financial costs.	This strategy proves to be effective and consistent with the current needs, due to the high readmission rate and high cost not only to the government but also for the patients. It is a way to improve the quality of life.

Heart failure clinics: a possible means of improving care. 1998	Erhardt l; Cline C.	HF clinics aim not only to promote optimal care for hospitalized patients but also ensure that medical, social and psychological support after discharge. In these clinics, the nurse has a new and diverse role, and it is important in education, training and assessment of patients.	From this multidisciplinary care where the nurse plays a key role, the individual and joint needs can be met to establish measures to optimize the quality of life.
What to teach to patients with heart failure and why: the role of nurses in heart failure clinics. 2007	Rabelo ER; Alitiz GB; Domingues FB; Ruschel KB; Bruno AO	Through literature review, the actions and the points where the nurse must prioritize education were highlighted. These are daily monitoring of weight and signs and symptoms of decompensation, use of medication, physical exercise, work, sexual activity, dietary restrictions.	The teaching practice should be part of the daily management of these patients, both in the hospital as the home environment. Advance planning gives support to patients and their families, emphasizing the observation of worsening signs. Thus, decompensation pictures can be avoided while improving the quality of life.
Educational settings in the management of patients with heart failure. 2007	Aliti GB; Rabelo ER; Domingues FB; Clausell N.	Educational interventions were studied to HF patients in nursing work scenarios, highlighting the importance and priority that should be given in each scenario (hospital, day hospital, home, and ambulatory).	As for education in the hospital, it should be initiated as soon as possible, and go on until after discharge, to evaluate its effectiveness. The home education allows more direct contact and evaluation to monitor the recommendations. The home education allows monitoring aimed at the prevention of clinical diseases.

Figure 3

Article and Year	Author	Results	Conclusions
Evaluation of Home Telehealth Following Hospitalization for Heart Failure: A Randomized Trial. 2008	Wakefield BJ, Ward MM, Holman JE, Ray A, Scherubel M, Burns TL, Kienzle MG, Rosenthal GE.	The 165 patients in the study received care after hospital discharge due to exacerbation, by telephone, videophone and usual care. The result of the intervention was an increase in the time to readmission, but had no effect on readmission rates or mortality. All the subjects reported increased quality of life within one year.	The distance care strategies can be effective when this care is not possible for different reasons.

<p>Web-Based Internet Telemedicine Management of Patients with Heart Failure. 2006</p>	<p>Kashem A, Droogan MT, Santamore WP, Wald JW, Marble JF, Cross RC, Bove AA.</p>	<p>A system via the internet has been tested in 36 patients with HF class II to IV, recently hospitalized for decompensation, and divided into two groups. The T group received the intervention proposed by the research, and the C group received usual care in a heart failure center. The T group experienced fewer hospitalizations than the control group, highlighting the relevance of using this strategy for care after discharge over long distances.</p>	<p>A communication way as widespread as the Internet has proved important in monitoring patients suffering decompensation and are vulnerable. It is a low-cost way to treat these patients.</p>
<p>Advanced Practice Nurse Strategies to Improve Outcomes and Reduce Cost in Elders with Heart Failure</p>	<p>Mccauley KM, Bixby MB, Naylor MD</p>	<p>Specialized nurses monitor patients in the hospital's transition to home, using strategies focused on improving the quality of life through self-care, managing comorbidities and reducing costs. The results were satisfactory, confirmed by educating patients to recognize symptoms, improved family relationships and adherence to treatment.</p>	<p>After hospital discharge, patients recently decompensated need own specialized monitoring to maintain adequate treatment also at home. Thus, education at discharge is necessary.</p>
<p>The Effectiveness of Heart Failure Disease Management: Initial Findings from a Comprehensive Program.</p>	<p>Clarke JL, Nash DB.</p>	<p>Preliminary findings strengthen the comprehensive management of HF as an effective means of promoting clinical outcomes and total reduction of medical costs for most patients.</p>	<p>The study contributes to create cost-cutting strategies to strengthen health systems and reduce health problems.</p>
<p>Utilization Reduction, Cost Savings, and Return on Investment for the PacifiCare Chronic Heart Failure Program, "Taking Charge of Your Heart Health"</p>	<p>Vaccaro J, Cherry J, Harper A, O'Connell MM.</p>	<p>The initial results at six months showed reduced hospitalization costs by up to 50.6%, generating notable reductions in spending, as detailed by the research.</p>	<p>The great demand of care for patients with HF required many investments and caused a lot of expenses, needing a research to reverse this reality.</p>
<p>The role of nurses in the management of heart failure. 2005</p>	<p>Julie Grange</p>	<p>The risk of developing HF can be reduced by appropriate interventions even during hospitalization. They can be evaluated by the nurse, among other issues, the proper use of medication, diet and follow the prescribed restrictions and detect other risks to health.</p>	<p>Care promoted by specialist nurses have been very effective in fighting the health problems situation.</p>

Among the 15 studies included in the integrative review, six are written by nurses, eight were conducted by nurses and doctors, and one was written by doctors. Among the studies analyzed, 93% were carried out by more than one author. As for the countries where the studies were published, 5 have been published in Brazil and 10 in other countries. Figure 4 show the year of publication of the articles.

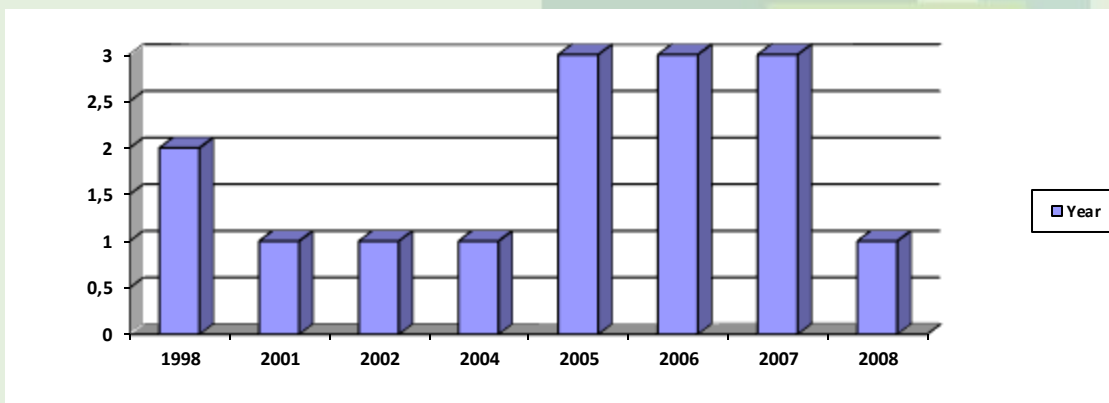


Figure 4. Years of studies publication.

Regarding the design of the studies had analyzed, there are no experimental studies, divided into descriptive (case report, experience report, literature review), and experimental. According to the literature, the best clinical evidence comes from experimental clinical studies, considering their accuracy, precision and practical applicability.⁷

After the studies analyzed, it was observed that one article was about the impact of the patients by nurses education, in a comprehensive manner, demonstrating significant result of the disease, self-care and consequently on the quality of life of these patients, through data from an interventional study. An increase in the number of patients who understand the disease and treatment (33% to 55%)⁸ observing an increase in self-care. This observation suggests that this approach along with other strategies could reduce decompensation episodes and thus improve the quality of life of patients with heart failure. Therefore:

An ongoing program and systematic education about the disease, medication regular use, salt and fluid restriction, regular physical activity, weight control and changes in lifestyle are essential. However, the ability to perform these controls depends mainly on the patient's knowledge and skills to maintain appropriate behavior. All these actions are called self-care, which has been defined as active cognitive process undertaken by the patients to maintain or manage the disease.⁵

It is noteworthy that education promoted by the nurse follows two directions: an instrumental action that influences the behavior and attitudes of the patient, and a protective action, which seeks to minimize the apprehension of the patient on treatment. Therefore, the patient and his real state of health must be informed, without causing a change in their behavior.⁴

Thus, the education process may consist of five steps: evaluation of prior knowledge, cognition, attitudes, motivation and errors that commits the patient regarding the treatment; identification of what could be taught, considering the potential learning barriers; education planning, with the participation of the patient in order to select the best interventions; planning how the education will be interrupted; and rigorous assessment of the implanted educational process.⁵

Care promoted by specialist nurses have been very effective. Many patients develop HF as a result of Coronary Syndromes, for example. Once detected the problem, the risk of developing the HF can be reduced by appropriate interventions even during hospitalization. The proper use of medication (by extensive and complex therapy), diet and follow the prescribed restrictions and detection of other health problems, among other issues can be evaluated by the nurse.⁹

The main actions aimed at patients with HF are: weight monitoring, fluid restriction, low sodium diet, physical exercises and adherence to drug therapy, and monitor signs and symptoms of decompensation. The result of these prescriptions interfere positively in the improvement of the condition, and prevents hospitalizations.³

As for educational scenarios, they can be the hospital, the outpatient center, home or day-hospital.⁴ As for education in hospitals, studies show that education and support offered to patients during the transition from hospital to home contributed to the improvement in self-care. Also, in a study promoted only during hospitalization, for the specialist nurse, interventions regarding the treatment (drugs, diet, exercise and early detection of decompensation) had satisfactory results in reducing mortality and admissions index.⁴

The concept of day-hospital in HF is still little explored in the literature. It is a form of intermediate treatment to individuals who require medication and daily supervision, but it does not require hospitalization. This intervention demonstrates a significant impact on the results of readmission, death and costs.⁴

As for education in non-hospital scenarios, the monitoring telephone may be regarded as an additional method of investigation of the patient when used to enhance the care plans and the educational process. It is generally used after hospital discharge and interventions during the home visit. Experimental studies have shown that patients with heart failure who received this type of education had lower rates of hospital readmission, compared with the control group.⁴

A randomized trial⁹ tested the effectiveness of two interventions designed to improve the adoption of evidence-based practice (PBE) for Homecare nurses, each one caring for a given patient with HF for 45 days. The basic intervention consisted of sending an e-mail (reminder) highlighting six specific clinical recommendations for heart failure. The intervention consisted of an expanded e-mail (reminder) plus guidance signs, and material for patient education. Both interventions increased the practice of evidence-based care, according to the registration of patients in the areas of assessment and instruction in the management of heart failure. The effects of the intervention were positive in all cases though not all results were statistically significant.¹⁰

In another article on the same study, it was evident the impact and cost-effectiveness of these interventions on patient outcomes. Interviews with patients were performed 45 days

after hospitalization to compare behavior for self-care, specific results of the HF (Kansas City Cardiomyopathy Questionnaire- KCCQ), quality of life related to health (EuroQoL), and use of the service. Both interventions improved KCCQ score, related to usual care. The basic intervention also earned higher scores on EuroQoL, and achieved greater cost-effectiveness, improving clinical outcomes. Both interventions obtained positive impact on the knowledge of medication, diet and weight monitoring.¹¹

In a randomized clinical trial conducted between July 2002 and 2005, associated with the University of Iowa, the effectiveness of telephone support program at post-discharge in reducing the use of resources by patients with HF was evaluated. A sample of 165 patients was selected by nurses by evaluating possible exacerbation or reason for hospitalization (patients admitted with HF, excess fluid volume and pulmonary edema). Patients received care after hospital discharge due to exacerbation, by telephone, videophone and usual care. The result of the intervention was an increase in the time to readmission, but had no effect on readmission rates or mortality. All the subjects reported increased quality of life within one year.¹²

The media have proved to be efficient, given the research to reduce costs and problems to the wearer's health heart failure, strengthening distance care. A telemedicine system via the internet has been tested in 2006 in order to establish a direct communication way entering patients and their caregivers three times a week through their website. There were 36 patients recruited with HF class II to IV, recently hospitalized for decompensation, and divided into two groups. The T group received the intervention proposed by the research and the C group received usual care in the heart failure center. The T group experienced fewer hospitalizations than the control group, highlighting the relevance of using this strategy for care after discharge over long distances. It is a low-cost way to treat these patients.¹³

Another issue that has been researched through randomized trials, it is the care provided to elderly patients more susceptible to heart failure. Specialized nurses accompanied these patients in the hospital transition to home, in a study published in 2006, using strategies focused on improving the quality of life through self-care, managing comorbidities and reducing costs. The results were satisfactory, confirmed by educating patients to recognize symptoms, improved family relationships and adherence to treatment.¹⁴

The cost reduction was also target of research conducted in 1999 in California with 52 patients, through the Program of Chronic Heart Failure "Taking Charge of Your Heart Health". It was a phone support program in order to train, educate and strengthen skills for self-care. There was a reduction of costs by re-hospitalization and home visits of 50.6%.¹⁵

The application of the nursing process systematically, planned and dynamic was highlighted in two of the articles. In one of them, the author uses the theoretical support in sensitive listening of Barbier in order to enhance the ability of speech and non-verbal expressions, in order to identify and formulate diagnoses which in turn were separated by two domains (psychological and social), facilitating the understanding of health and disease situation in its entirety and facilitating communication between professional-patient which favors interventions at appropriate times.¹⁶

In the second article the nursing consultation to the heart transplant patient aimed at the development of skills for self-care using a tool of the author, based on Orem's theory,

thus from self-care requirements nursing diagnoses, and interventions guided by educational support can be identified, using as a helper method, teaching for self-care. From this, it was realized that the nursing consultation, permeated by educational activities on health allowed skill development for self-care to patients transplanted which minimizes the likely complications of post-transplant process.¹⁷

Preliminary findings of a study conducted in the United States in 2002 about a care program for people with HF, strengthen the comprehensive management of HF as an effective means of promoting clinical outcomes and total reduction of medical costs for most patients. The study evaluated members of a commercial health plan, considering factors such as clinical quality, use and economic outcomes observed after one year.¹⁸

The shortcomings found previously the diagnosis and treatment and monitoring of the HF culminated in the creation of clinical heart failure, consisting of a multidisciplinary team working through an integrated care based on a shared care program. The objective of these clinics is not only promoting optimal care to hospitalized patients, but also taking steps to ensure medical, social and psychological support after discharge. In these clinics, nurses have a new and diverse important role in education, training and evaluation of patients.¹⁹

Regarding the implementation of the clinical heart failure, it is worth noting the experience lived in the Antônio Pedro University Hospital, Fluminense Federal University, which is developing an extension project that performs the nursing consultation using the SAE (Systematization of Nursing Care) which is methodological model for nurses apply their technical and scientific knowledge in healthcare practice, favoring the care and organization of the necessary conditions for it to be realized. Within this methodology and based on NANDA (North American Nursing Diagnosis Association) to classify diagnoses, NIC for classifying nursing interventions and NOC to sort the results, it is possible along with a multidisciplinary team and conducting health education, achieve improved quality of life of the patient with heart failure, increased treatment adherence and decreased hospitalization.²⁰

Other experimental studies related to multidisciplinary interventions directed by nurses showed much higher readmission and hospitalization rates in the control group individuals compared to those who received interventions such as education and their families, as well as other necessary recommendations.²¹

The literature already has demonstrated the benefits related to health education and support interventions obtained by multidisciplinary teams in several environments where HF can be handled. But some issues have yet to be answered, as several studies have shown negative or inconclusive results on the results obtained after educational interventions.⁴

Thinking about care in an integral way, it is considered that when the individual gets sick, he is reached in their physical, psychological and social integrity, especially because of the restrictions that the disease behind, a negative effect on quality of life. In health promotion, it is not enough to administer drugs or perform technics, educate or teach new skills and behavioral patterns. Nurses must act on the needs and emotions that mediate such knowledge and practices in order to obtain better results.

CONCLUSION

All studies showed that the nurse's role is essential in education and individualized monitoring, thus promoting self-care. The analysis also allowed the knowledge of methods available for education, thus meeting the objectives of this research.

Thus, it is proposed that new studies are developed for the elaboration of strategies to promote the quality of life of patients with heart failure, by applying different educational activities, aiming at a comprehensive care. These actions should be comprehensive, aimed not only at preventing complications of the disease, but also for reverting decompensation and other health problems. Moreover, we should focus on such care for patients who are in advanced stages of heart failure, as well as those who have suffered radical interventions such as heart transplantation.

Therefore, adherence to treatment, the reduction of decompensation rates and hospitalization of patients with HF by 2010 was often the result of a multidisciplinary interaction that can favor adherence to pharmacological and non-pharmacological treatment, and pointing to education in health as a care strategy.

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