



QUALITY OF LIFE OF PATIENTS WITH HEART FAILURE: INTEGRATIVE REVIEW QUALIDADE DE VIDA DE PACIENTES COM INSUFICIÊNCIA CARDÍACA: REVISÃO INTEGRATIVA CALIDAD DE VIDA DE PACIENTES CON INSUFICIENCIA CARDÍACA: REVISIÓN INTEGRADORA

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ABSTRACT

Objective: to analyze the scientific production about the perception of the quality of life of patients with heart failure. **Method:** this study is an integrative review to answer the following questions << What is the scientific evidence on the quality of life perception in patients with heart failure? >>, << What evaluation tools are used? >>. The search was carried out in the MEDLINE, CINAHL, LILACS and SciELO Virtual Library databases from 2009 to 2014, using the keywords quality of life and heart failure. **Results:** there were 649 investigations found, 15 of them were selected. The main factors that contribute to changes in the perception of quality of life are the physical aspects. The Minnesota Living with Heart Failure Questionnaire was the most widely used instrument to assess the quality of life. **Conclusion:** the perception of quality of life was altered, causing serious limitations in functional capacity and the performance of daily life activities. **Descriptors:** Quality of Life; Heart Failure; Evaluation.

RESUMO

Objetivo: analisar a produção científica acerca da percepção da qualidade de vida de pacientes com insuficiência cardíaca. **Método:** estudo de revisão integrativa com vistas a responder às seguintes questões: << Quais as evidências científicas sobre a percepção da qualidade de vida de pacientes com insuficiência cardíaca? >> ; << Quais instrumentos de avaliação utilizados? >>. A busca ocorreu nas bases de dados MEDLINE, CINAHL, LILACS e na Biblioteca Virtual SciELO, de 2009 a 2014, empregando-se os descritores *quality of life* e *heart failure*. **Resultados:** foram localizadas 649 investigações, das quais 15 foram selecionadas. Os principais fatores que contribuem para alterações na percepção da qualidade de vida são os aspectos físicos. O questionário *Minnesota Living with Heart Failure Questionnaire* foi o instrumento mais utilizado nos estudos para avaliar a qualidade de vida. **Conclusão:** a percepção da qualidade de vida apresentou-se alterada, acarretando sérias limitações na capacidade funcional e na realização das atividades da vida diária. **Descritores:** Qualidade de Vida; Insuficiência Cardíaca; Avaliação.

RESUMEN

Objetivo: analizar la producción científica acerca de la percepción de la calidad de vida de pacientes con insuficiencia cardíaca. **Método:** estudio de revisión integradora para responder a las siguientes preguntas << Cuáles son las evidencias científicas sobre la percepción calidad de vida de pacientes con insuficiencia cardíaca? >>, << Cuales instrumentos de evaluación utilizados? >>. La búsqueda fue en las bases de datos MEDLINE, CINAHL, LILACS y en la Biblioteca Virtual SciELO, de 2009 a 2014, empleándose las palabras clave *quality of life* y *heart failure*. **Resultados:** fueron localizadas 649 investigaciones, de las cuales 15 fueron seleccionadas. Los principales factores que contribuyen para alteraciones en la percepción de la calidad de vida son los aspectos físicos. El cuestionario *Minnesota Living with Heart Failure Questionnaire* fue el instrumento más utilizado en los estudios para evaluar la calidad de vida. **Conclusión:** la percepción de la calidad de vida se presentó alterada teniendo serias limitaciones en la capacidad funcional y en la realización de las actividades de la vida diaria. **Descritores:** Calidad de Vida; Insuficiencia Cardíaca; Evaluación.

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INTRODUCTION

Chronic diseases, especially cardiovascular diseases (CVD), are the main causes of morbidity and mortality in developed and developing countries. Among other things, this is due to an increase in life expectancy, changes in habits and lifestyle. Projections indicate that in 2020, CVD will account for more than 20 million deaths annually.¹

Among the CVDs, there is heart failure (HF), the end of most heart diseases. This is considered a serious public health problem whose high prevalence is associated with population aging and improvements in the treatment of severe heart diseases such as acute myocardial infarction.² It is the main cause of hospitalization in people over 65 years old, and it is estimated that 2% of health expenditures in developing countries are for the clinical management of HF.²

HF is a chronic, complex, multifactorial syndrome resulting from structural or functional cardiac abnormalities that affect the ventricle's ability to eject or fill with blood to meet the body's metabolic needs.³

Among the risk factors that appear in the development of HF, there are systemic arterial hypertension, coronary artery disease, dyslipidemias, diabetes, obesity, as well as other factors, such as age, gender, and smoking.⁴

Even with the progress of therapy established in the clinical management of HF, evidence in the literature states that from 30 to 90 days after the first hospitalization, new hospital readmissions due to decompensation are performed due to the patient's low adherence to established treatment.⁵

HF presents a series of restrictions on the physical, mental and social aspects, causing limitations of its patients in carrying out activities of daily living, as well as commitment to the satisfaction of well-being and quality of life.^{1,3}

Quality of life (QOL) consists of the individual's perception of their life, considering their cultural context, their values, and feelings, expectations and needs, encompassing physical, mental, social and well-being dimensions in the environment in which they live.⁶

The physical limitations caused by the presence of symptoms such as dyspnea, fatigue, edema and psychological symptoms such as fear, anxiety, and sadness due to HF have a negative impact on the maintenance of the autonomy and functional capacity of the affected person.⁷ Therefore, HF directly

influences QOL, due to the changes imposed by the disease to the lifestyle with the adoption of new habits.

Considering the changes in health status, increased prevalence and poor prognosis of HF, it is considered relevant to analyze state of the art about the evaluation of QOL in patients affected by the disease. Valuation of QOL in patients with HF is an important clinical indicator of functional capacity monitoring, and of new hospitalizations, and to the development of rehabilitation and control programs for HF.⁸

In this context, the study aims to analyze the national and international scientific production regarding the perception of the quality of life of patients with heart failure.

METHOD

This study is an integrative review elaborated from six stages: identification of the problem, search the literature, categorization of data, evaluation of data, analysis of the data found and presentation of the synthesis of knowledge.⁹

The guiding questions postponed for the study were: Which are the dimensions evidenced in the research interfering in the perception of the quality of life of patients with heart failure? What were the measurement instruments used to assess the quality of life?

The inclusion criteria adopted were primary studies, available in full online, in English, Portuguese and Spanish. Articles with a qualitative approach, duplicated in the databases, as well as integrative reviews, theses, and dissertations, were excluded.

The scientific articles were extracted from the following databases: Medical Literature Analysis and Retrieval System Online (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Latin American and Caribbean Literature in Health Sciences (LILACS), and the Scientific Electronic Library Online (SciELO) Virtual Library. The articles were surveyed in July 2015. The search was carried out in a five-year time frame, encompassing research published from 2009 to 2014, covering articles in full-text format. The keywords "quality of life" and "heart failure" were used in LILACS and SciELO. The descriptors MeSH (Medical Subject Headings), "quality of life" and "heart failure" were used in MEDLINE, CINAHL. The descriptors were combined using the Boolean "AND" operator.

At the intersection of the descriptors, 649 publications were found investigating the QOL

of patients with HF. Firstly, the title of the publication was read, followed by a careful reading of the abstract to verify the adequacy of the inclusion criteria described above. In cases where the title and abstract were not enough to determine the fulfillment of the defined inclusion criteria, the publication was searched in full, so that all the criteria could

be applied and the articles that answered the guiding questions of the study were selected. The excluded articles did not have the quality of life of patients with HF as the main theme. After the careful reading and refinement of the search, 15 articles that composed the sample were selected, as shown in figure 1.

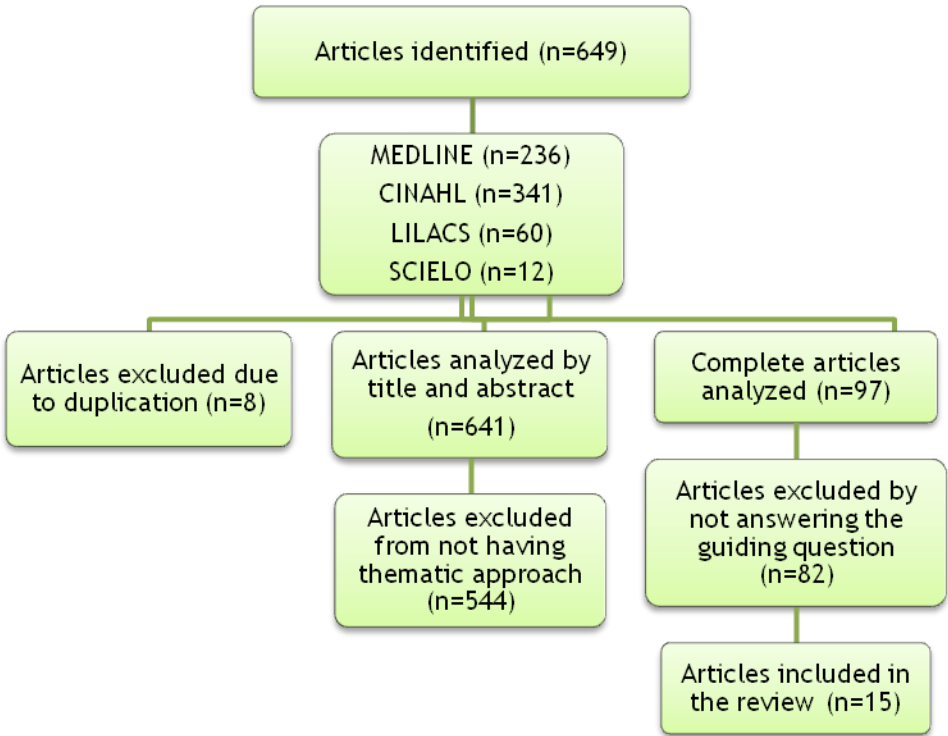


Figure 1. Flowchart for the selection of articles found and selected for integrative review. João Pessoa (PB), 2015.

After the reading, information was extracted from the selected articles, from a synoptic table prepared by the authors, containing the following items: publication title, authors, year, journal, language, objectives, methodological outline, results, and conclusions. Also, the selected studies were classified according to the level of evidence as follows: I - systematic reviews or meta-analysis of relevant clinical trials; II - evidence of at least one well-delineated randomized controlled trial; III - well-delineated clinical trials without randomization; IV - well-delineated cohort and case-control studies; V - systematic review of descriptive and qualitative studies; VI - evidence derived from a single descriptive or qualitative study; VII - opinion of authorities or committees of experts including interpretations of information not based on research.¹⁰

Then, the articles selected in the first moment were reassessed, to evaluate their methodological quality. The Critical Appraisal Skills Program (CASP) instrument adapted by Mafra was applied.¹¹ The studies were classified into two categories according to the score obtained by applying the instrument: A) six to 10 points - Studies of good

methodological quality and bias reduced, and B) at least five points - Studies with satisfactory methodological quality, but with increased bias potential. All selected articles scored ≥ 6 points and were included in the review.

RESULTS

Evaluating the 15 publications regarding the language of origin, 07 are written in Portuguese, 06 in English and 02 in Spanish. Among the countries where the investigations were carried out, Brazil stands out with 08 surveys and Spain with 02. Serbia, Korea, Greece, Taiwan and the United States participated in 1 research. The articles produced in Brazil were developed in the Southeast and South of the country. Regarding the year of publication, it was found that there were more publications in 2013, with 04 articles published and there were 3 publications in 2010.

Regarding the level of evidence of the publications, most studies do not show/display strong evidence, that is, they were descriptive studies.

The studies included in the present review are demonstrated to facilitate the understanding of the evidenced results,

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according to the title, type of study, sample, an instrument used to evaluate the quality of life, the level of evidence, conclusions/recommendations (Figure 2).

Title	Type of study/ Sample/ Instrument	Level of evidence	Conclusions/ Recommendations
Quality of life and clinical indicators in heart failure: multivariate analysis ¹²	Descriptive, cross-sectional; n=101 outpatients; MLHFQ	VI	The mean QOL was 37.5 ± 18.4. The emotional domain (15.1 ± 6.4) presented an average superior to the physical domain (14.2 ± 8.8). Biopsychosocial aspects may contribute to the expectations of patients with HF. A holistic and multidisciplinary approach to overall patient care is recommended.
Analysis of the quality of life in men and women with heart failure ¹³	Descriptive, cross-sectional, n=74 outpatients; MLHFQ	VI	The mean QOL score was 35.6 ± 18.9 for men and 47.8 ± 24 for women (p = 0.02). Worse QOL was observed in patients with HF female compared to males.
Health-related quality of life in elderly patients hospitalized with chronic heart failure ¹⁴	Descriptive, cross-sectional; n=136 hospitalized elderly; MLHFQ	VI	The mean QOL was 50.4 ± 19.3. The physical dimension was the most impaired 25.3 ± 9.4. Depressive symptoms, advanced functional class, and low family income were associated with low QOL.
Health-related quality of life in elderly patients with heart failure: evaluation with a specific instrument ¹⁵	Descriptive, cross-sectional; n=170 elderly in outpatient monitoring; MLHFQ	VI	The mean QOL was 35.3 ± 17.2. The physical dimension (17 ± 9.3) was the most compromised aspect in the evaluation in the QOL.
Quality of life in patients with heart failure: vision from primary health care ¹⁶	Descriptive, cross-sectional; N = 554 outpatients; MLHFQ and SF-36	VI	The QOL presented a mean of 31.7 ± 21.3 for the MLHFQ. QOL changes were observed in all its dimensions, especially in physical aspects (14.8 ± 10.5). The women (33.9 ± 20.9) had a lower QOL compared to males (29.4 ± 21.9). The SF-36 indicated impairment in general health and physical capacity.
Quality of life of clients with heart failure: a quantitative study ¹⁷	Before and after longitudinal type; n=48 outpatients; MLHFQ	VI	Comparing the final consultation score (20.8 ± 18.1) versus the initial one (32.9 ± 20.1), the nursing consultation through the sensitive listening showed a significant influence on the QOL improvement of people with HF (p <0.001).
Health-related quality of life among the elderly with heart failure: a generic measurement ¹⁸	Descriptive, Cross-sectional; n=170 elderly in outpatient follow-up; SF-36	VI	Lower scores were observed in the dimensions of functional capacity (64.1 ± 44.7) and physical (51.6 ± 20.2), compromising the QOL of this population.
Determinants of health-related quality of life in outpatients with heart failure ¹⁹	Descriptive, Cross-sectional; N = 130 outpatients; MLHFQ, SF-36	VI	The mean HRQOL for MLHFQ was 34.9 ± 24.8. There was a significant association between QOL measurement and age (r=-0.177; p=0.044). The SF-36 pointed out that psychological factors influence the perception of QOL. It is recommended to control symptoms and maintain mental health.
Factors affecting quality of life in Korean patients with chronic heart failure ²⁰	Descriptive, Cross-sectional; n=114 outpatients; MLHFQ	VI	The mean MLHFQ score was 34.5 ± 22.8. High scores were identified in patients with advanced functional class (53.5 ± 22.2) and low family income (36.4 ± 22.7), indicating a poor QOL. Nursing interventions are recommended for people with

Health-related quality of life os patients with severe heart failure. A cross-sectional multicenter study21	Descriptive, sectional; n=199 patients; MLHFQ	Cross-hospitalized	VI	HF. The mean MLHFQ score was 34.5 ± 22.8. Advanced functional class III/IV had higher scores (53.5 ± 22.2), indicating a negative influence on QOL. It is recommended a holistic and multi-professional approach to patients.
Functional capacity as a predictor of quality of life in heart failure22	Descriptive, sectional; n=57 outpatients; MLHFQ	Cross-	VI	The mean QOL in the patients enrolled in the cardiac rehabilitation program was 33.4 ± 15.2. Patients who underwent regular outpatient follow-up for at least three months had a good QOL (15.85 ± 14.7).
Comparison of health-related quality of life between American and Taiwanese heart failure patients23	Comparative, sectional; n=175 outpatients; MLHFQ	Cross-	VI	QOL was more impaired in American patients (52.6 ± 22.7) compared to Taiwanese (43.8 ± 25.1). Physical symptoms such as dyspnea and fatigue were those that exerted the greatest influence on QOL.
Analysis of the quality of life in patients with heart failure using the generic questionnaire SF-3624	Descriptive, sectional; n=50 outpatients; SF-36	Cross-	VI	HF has a negative impact on QOL, especially on physical and emotional functions. Participants reported lower scores on physical (49.4 ± 27.8) and general health (54 ± 22.6) scales.
Correlation between quality of life and functional capacity in heart failure25	Descriptive, sectional; n=46 outpatients; MLHFQ and SF-36	Cross-	VI	The MLHFQ mean score was 41.8 ± 18.8. There was weak to moderate correlation between the MLHFQ score and the cardiopulmonary variables (r = - 0.5; p <0.05); the physical aspects were the most compromised. The SF-36 measurement showed to be altered, indicating functional limitation imposed by HF, reflecting worsening of QOL.
Quality of life and survival in patients with heart failure26	Longitudinal; n=661 hospitalized patients MLHFQ		IV	The mean MLFHQ score was 44 ± 21. Physical domain, age, and advanced functional class influence QOL. We recommend programs for the therapeutic follow-up of patients with HF, with a focus on QOL.
Figure 1. Characterization and findings of the analyzed publications. João Pessoa (PB), Brazil, 2015.				

The sample ranged from 46 to 661 patients with HF in the analyzed studies. Most patients were male and married. The ischemic heart disease presented as the main etiology of HF and the main comorbidities associated with HF were Systemic Arterial Hypertension and Diabetes Mellitus.

Regarding the methodological design, cross-sectional studies prevailed (13). In most of the studies, the evaluation of QOL was performed using instruments. The Minnesota Living with Heart Failure Questionnaire (MLHFQ) was used in 10 studies and 03 the QOL was evaluated through the association of two questionnaires, the Medical Outcomes Study Short-Form Health Survey SF-36 and MLFHQ, and in 02 studies, only the SF-36 was applied.

All articles used descriptive statistics to analyze sociodemographic, clinical and QOL scores. The main statistical resources used were the internal consistency of the instrument, through Cronbach's alpha; Correlation analysis and linear regression.

Regarding the main conclusions reached in the studies, it negative changes in the QOL of patients with HF was possible to identify, in the articles selected the use f both generic and specific instruments or association between the two was possible to identify. The results found that the dimension Physical activity was the most impaired and the one that exerted most influence in the QOL compared to the emotional dimension, independent of the instrument used. Regarding the recommendations, health strategies with a holistic and multidisciplinary

approach were proposed to be incorporated in the treatment of HF patients, aiming at improving QOL, although no study evaluated QOL in patients undergoing multidisciplinary follow-up.

DISCUSSION

In response to the questions that guided the search of the articles in the databases, as well as the information about which dimensions interfered in the QOL of these patients, the perception of the QOL was altered, and the physical dimension was the most impaired. Since HF is a debilitating disease due to the reduction of cardiac output and left ventricular ejection fraction (LVEF), it is considered a low tolerance to perform activities of daily living, due to the metabolic and respiratory symptoms, triggering symptoms such as dyspnea, fatigue, and limb edema.⁶

It is important to emphasize that HF is categorized based on the intensity of symptoms in four classes proposed by the New York Heart Association (NYHA). These classes stratify the degree of limitation imposed by the disease on the individual's daily activities. The four classes proposed are: Class I - absence of symptoms (dyspnea) during daily activities, with effort limitation similar to expected in normal individuals; Class II - symptoms triggered by daily activities; Class III - symptoms triggered by activities less intense than daily or small efforts; Class IV - symptoms at rest.²⁷

In this review, studies conducted in outpatient patients in NYHA functional class I and II were prevailing.^{12-13,15-20,22-25} In these cases, patients are more likely to participate in studies that assess the perception of QOL due to the lowest level of impairment of their physical and emotional conditions. Thus, it is assumed that hospitalized patients would be in a state of clinical decompensation of the disease, emotionally debilitated, which consequently would imply significant alterations in the perception of health status and QOL.¹⁴

In the analysis of the studies of this review, three of the evaluated the QOL in hospitalized patients.^{14,21,26} The results showed that with the advancement of age and functional class, mainly class III and IV, QOL is highly compromised, signs and symptoms triggered by clinical decompensation. Also, the presence of comorbidities associated with HF may contribute to a worse prognosis, due to ventricular, vascular and renal changes with the progressive advancement of HF.²⁶⁻²⁷

It should be emphasized that HF is the main cause of hospitalizations in people over 65 years old.² Thus, based on the analysis of the studies, it was possible to identify three studies evaluating QOL specifically in the elderly with HF.^{13-14,17} It is important to emphasize the number of elderly people hospitalized due to the clinical-functional functions of HF being increasing, causing a greater dependence on health care in the face of pulmonary alterations triggered by pulmonary hypertension and decreased ventilatory capacity, resulting in dyspnea and fatigue limiting the patients with HF to perform daily activities.⁶

In our findings, a cohort study of 661 hospitalized patients with HF (62% males, mean age 71 years old, and LVEF 34%) was prospectively followed for three years. There were patients with low physical score, related to NYHA class III and IV, and associated with a diagnosis of comorbidities indicating poor QOL and high mortality rates.²⁶

It is noticed that the symptoms experienced by patients with HF, especially fatigue, negatively influence the perception of QOL, worsening of the disease, causing sleep disorders, anxiety, and psychological stress, besides causing limitations to the maintenance of a compatible lifestyle with the desirable sense of autonomy and independence.^{19,21}

Only a comparative study with a sample of 175 patients, whose objective was to examine differences in the QOL of Americans (n=87) and Taiwan (n=88), found that the Americans presented higher scores associated with a poor QOL.²³ The authors found cultural differences related to the family structure, especially those living alone, that presented worse QOL. Another factor that may produce cultural differences in QOL was financial support, particularly for health problems. Patients with HF in Taiwan are entirely covered by National Health Insurance, unlike Americans, who do not have full and free health coverage, causing high costs for medical care. It is understood that health spending generates concerns in maintaining the family structure, given the acquisition of medications, consultations, examinations and adherence to the complex treatment proposed for HF, these actions can influence the perception of QOL.²³

In the analyzed literature, two studies have evaluated QOL through instruments and performance measures such as six-minute walk tests and spirometry.^{12,25} Cardiopulmonary function has been compromised, which directly involves

functional capacity in activities of daily living, indicating a worse QOL. Although this modality of investigation is little used in patients with HF, it allows identifying from clinical protocols, which variables directly influence the perception of QOL, contributing to therapeutic decision making, besides promoting actions aimed at better conditioning of the patients, such as regular physical activity.

Regarding the methodological design, the research conducted were mostly cross-sectional, which favored the collection of data in a single moment, avoiding losses of participants, proving to be adequate for this type of patient and its relationship with QOL, allowing to describe the characteristics of the population and to examine associations between variables. Although cross-sectional studies predominate in our findings, we found that longitudinal surveys are used to identify data in different periods, for the purpose of inferring cause and effect relationships on a variable. However, this type of study is extremely difficult, given the number of subjects investigated, the demand for financial resources necessary for its operation and long periods of time to be completed.

Only one study with an intervention strategy was found to improve the life quality of patients with HF.¹⁷ There were 48 outpatients included in a four-month follow-up. In the strategy used the nursing consultation, through sensitive listening, in addition to monthly telephone contact, to obtain information about the state of health and reinforce guidelines received during the consultation. The results showed a statistically significant improvement in the QOL of all patients. These results suggest that nurses frequently accompany patients with HF, opening new perspectives for the study of interventions focused on the management and QOL of HF.¹⁷

It is important the therapeutic strategies such as home visits, telephone monitoring, health education interventions involving the non-pharmacological management of HF, such as saline restriction guidelines, physical activity, daily weight verification, early recognition of signs and symptoms of decompensation in the follow-up of patients with HF. These strategies are proven by the literature and contribute as a facilitating agent for managing self-care and adherence to the proposed therapy, especially on the impact of the decrease in mortality and the improvement of QoL.²⁸ However, the studies conducted in the national scenario using these interventions strategies are still incipient.

It is verified that different instruments to measure QOL were applied in the studies, which, in general, provide a real and concrete assessment of the impact of HF on the patient's QOL, besides including subjective aspects.

The MLHFQ questionnaire is specifically aimed at measuring the QOL of patients with HF.^{12-15,17,20-23,26} This encompasses two dimensions: a physical one, involving issues related to dyspnea and fatigue, and an emotional one. The other questions are related to lifestyle, financial situations and side effects of medications.²⁹

In general, the MLHFQ proved to be a reliable instrument for assessing the QOL of people with HF, because it is self-applicable and easy to understand, as well as presenting measures of reliability and reproducibility proven by the literature.⁹ However, because it is structured in the scale format Likert-type, responses may be confused, depending on the level of education of the study participant. Therefore, the researcher must pay attention to the possible factors that may impair the understanding of the questions by the research subjects, as well as to develop tools that favor the operability of data collection, minimizing possible biases due to lack of understanding.

In two studies, the authors evaluated QOL using the generic Medical Outcomes Study Short-Form Health Survey (SF-36), which pointed to lower scores in the physical domains, affecting physical capacity.^{16,18} Mental and social domains presented high scores, not exerting a strong influence on the perception of QOL.

Regarding the SF-36, it consists of a generic instrument to evaluate the perception of the state of health of people with chronic diseases. It presents 36 questions organized into eight domains: functional capacity, body pain, vitality, general health, social function, physical and emotional function and mental health. These domains can be aggregated into two major groups: physical and mental. Larger scores represent a better QOL.³⁰

Although MLHFQ and SF-36 are instruments with different target audiences, both were adequate for evaluation of QOL. The studies that performed the association of QOL with the two instruments^{16,19,25} revealed similar results, pointing to the physical dimension of the instruments as the most impaired, directly influencing the participants' physical capacity. Also, the perception of general health status was altered indicating a poor QOL, but the literature recommends the application of specific instruments, making them closer to

the patient's reality and their condition of illness.⁹

It was possible to observe that few studies have proposed recommendations or strategies to improve the QOL of people with HF.^{12,19,20,21,26} Among them, the multidisciplinary approach to care was the most recommended, although no study evaluated the QOL of patients undergoing multidisciplinary follow-up. Also, holistic care has been recommended, especially in the psychological and functional influences that compromise the state of health and ability to cope with the illness.

CONCLUSION

The studies analyzed indicate that one of the main factors that contribute to alterations in the perception of quality of life are the physical aspects, which impair the functional capacity and autonomy of the patients in performing activities of daily living. The implementation of follow-up programs with a multidisciplinary and holistic approach to the health care of patients with heart failure was encouraged.

The limitations of this study lie in the lack of investigations with better levels of evidence that allow greater comparisons and expansion of results. Additionally, the absence of studies on quality of life in patients with heart failure in the Northeast region of Brazil indicates the necessary investigation proposals to verify the impact of this disease in the varied economic and cultural contexts of the country.

It should be emphasized that for nursing practice, this study opens new perspectives to identify possible variables that influence the quality of life of the patients affected over time, either favoring or depressing it, elucidating more clearly the impact of heart failure in the quality of life of its patients.

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