RESEARCH

CORRELATION BETWEEN SELF-CARE AND SOCIAL SUPPORT IN PEOPLE WITH HEART FAILURE

CORRELAÇÃO ENTRE AUTOCUIDADO E APOIO SOCIAL EM PESSOAS COM INSUFICIÊNCIA CARDÍACA

CORRELACIÓN ENTRE AUTOCUIDADO Y APOYO SOCIAL EN PERSONAS CON INSUFICIENCIA CARDÍACA

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ABSTRACT

Objective: to correlate social support with self-care for people with heart failure. **Method**: an exploratory, descriptive and cross-sectional study with a quantitative approach, carried out with 63 individuals with heart failure treated at a university hospital's Cardiology outpatient clinic. The data were collected using a structured instrument to obtain sociodemographic data and health conditions; the European Heart Failure Self Care Behavior Scale was used to assess self-care, whose final score has an inverted value, indicating that the lower the score, the better the self-care; and the Medical Outcomes Study Social Support Scale, which, through five dimensions (Emotional, Material, Affective, Information and Social Interaction), indicates that the higher the score, the better the social support. **Results**: in relation to the sample, there was a higher frequency of males (57.14%), aged 60 or over (60.31%), married or in a stable union (65.07%), with five to eight study years (28.57%), unemployed (82.5%) and retired (57.14%). In relation to self-care and social support, satisfactory mean values of 27.01 (±6.66) and 80.27 (±16.48) were obtained, respectively. When investigating the correlation between social support and self-care, a negative correlation (r = -0.252) was identified, with statistical significance ($p \leq 0.05$) between the Information dimension and self-care. **Conclusion**: it is inferred that the social support Information dimension is significantly related to the self-care of people with heart failure, indicating that self-care increases as the Information dimension increases.
Keywords: Self-Care; Heart Failure; Nursing.

RESUMO

Objetivo: correlacionar o apoio social com o autocuidado de pessoas com insuficiência cardíaca. Método: estudo exploratório, descritivo e transversal, com abordagem quantitativa, realizado com 63 pessoas com insuficiência cardíaca atendidas no ambulatório de cardiologia de um hospital universitário. Os dados foram coletados mediante um instrumento estruturado para obtenção dos dados sociodemográficos e de condições de saúde; a European Heart Failure Self Care Behaviour Scale foi usada para avaliação do autocuidado, cujo escore final tem pontuação invertida, indicando que quanto menor a pontuação, melhor o autocuidado; e a Escala de Apoio Social Medical Outcomes Study, a qual indica, por meio de cinco dimensões (emocional, material, afetivo, informação e interação social), que quanto maior a pontuação, melhor o apoio social. Resultados: quanto à amostra, observou-se uma maior frequência do sexo masculino (57,14%), faixa etária de 60 ou mais (60,31%), casados ou em união estável (65,07%), com cinco a oito anos de estudo (28,57%), sem ocupação (82,5%) e aposentados (57,14%). Quanto ao autocuidado e ao apoio social, obtiveram-se médias satisfatórias de 27,01 (±6,66) e 80,27 (±16,48), respectivamente. Na investigação da correlação entre o apoio social e o autocuidado, identificou-se correlação negativa (r = -0,252), com significância estatística (p ≤ 0,05) entre a dimensão informação e o autocuidado. Conclusão: infere-se que a dimensão informação do apoio social relaciona-se significativamente com o autocuidado de pessoas com insuficiência cardíaca, apontando que o autocuidado se eleva à medida que a dimensão informação aumenta.
Palavras-chave: Autocuidado; Insuficiência Cardíaca; Enfermagem.

RESUMEN

Objetivo: correlacionar el apoyo social con el autocuidado en personas con insuficiencia cardíaca. Método: estudio exploratorio, descriptivo y transversal, con enfoque cuantitativo, realizado con 63 personas con insuficiencia cardíaca atendidas en el ambulatorio de cardiología de un hospital universitario. Los datos se recogieron mediante un instrumento estructurado para obtener datos sociodemográficos y condiciones de salud; se utilizó la European Heart Failure Self Care Behaviour Scale para evaluar el autocuidado, cuya puntuación final es inversa, indicando que cuanto menor sea la puntuación, mejor será el autocuidado; y la Escala de Apoyo Social Medical Outcomes Study, que indica, a través de cinco dimensiones (emocional, material, afectivo, información e interacción social), que cuanto mayor sea la puntuación, mejor será el apoyo social. Resultados: en cuanto a la muestra, se observó una mayor frecuencia del sexo masculino (57,14%), un rango de edad de 60 años o más (60,31%), casados o en unión estable (65,07%), con entre cinco y ocho años de estudio (28,57%), sin ocupación (82,5%) y jubilados (57,14%). En relación con el autocuidado y el apoyo social, se obtuvieron medias satisfactorias de 27,01 (±6,66) y 80,27 (±16,48), respectivamente. En la investigación de la correlación entre el apoyo social y el autocuidado, se identificó una correlación negativa (r = -0,252), con significancia estadística (p ≤ 0,05) entre la dimensión información y el autocuidado. Conclusión: se infiere que la dimensión información del apoyo social se relaciona significativamente con el autocuidado de personas con insuficiencia cardíaca, señalando que el autocuidado mejora a medida que la dimensión información aumenta. Primaria y Secundaria; Educación en Salud.
Palabras clave: Autocuidado; Insuficiência Cardíaca; Enfermería.

INTRODUCTION

The Chronic Non-Communicable Diseases (CNCDs) are responsible for a growing mortality rate, accounting for nearly 41 million people each year, which corresponds to 70% of all deaths in the world[1]. Among the main CNCDs are Cardiovascular Diseases (CVDs), which are chronic-degenerative diseases arising from multiple etiologies, considered the main causes of premature morbidity and mortality in the world, with nearly 2 million deaths per year and a significant socioeconomic impact[2].

Considering updated data from the American Heart Association (AHA), in the United States there were 1.2 million hospitalizations in 2017, characterizing a 26% increase in hospitalizations due to Heart Failure (HF) since 2013, which continues to progress with a growing number[3,4]. However, in Brazil the prevalence of HF doubles every decade of life. Between 2008 and 2018, there were more than 2 million hospitalizations due to HF, in addition to 252,000 deaths, with an estimated expenditure by the Public Health system of around 3 billion reais[5,6].

The HF clinical characteristics include several symptoms that mainly involve the respiratory system, such as dyspnea and fatigue, as well as dizziness, palpitation, cough, signs of crepitus on lung auscultation, edema of the lower limbs, chest pain, orthopnea and hepatomegaly and ascites signs, which can affect performance of the basic activities of daily living, making people with HF more susceptible to dependence, which exerts a negative impact on their self-care[7].

Self-care is related to a person's ability to take care of themselves, performing activities that help them maintain a satisfactory quality of life. In the context involving HF, it is important to consider adherence to the pharmacological treatment, maintaining a healthy lifestyle and managing disease decompensation signs. When directed and evaluated by health professionals, these activities promote more autonomy and independence for patients with HF, improve their clinical condition and reduce new hospitalizations, through management and execution of self-care practices[8].

In view of the above, the presence of a social support network is considered an essential aspect for maintaining treatment in people affected by HF[9-11], given that it encompasses the integration of emotional, financial, instrumental and affective support that people or institutions can offer, with main emphasis on family life and social circles[11]. This network should also include participation of health professionals and/or services, with emphasis on

Nursing, which are the bases for promoting care measures aimed at maintaining health and continued assistance[9].

The links and bonds of a support network produce and sustain benefits for people's health, as they constitute important tools in the patients' ability to cope and adapt. This exerts an impact on all individuals involved, promoting protection in difficult times and helping promote well-being and health, which results in positive behaviors by each person facing the disease[9-11]. In this context, it becomes indispensable for health professionals to guide and monitor patients with HF as participants in this support network, to boost care management in the home network[12].

Considering these projections presented, it is argued that the current study is justified by the theme relevance and the need to carry out research studies that evaluate the self-care and social support levels in people with HF, as these two thematic axes can influence control and treatment of the disease and promote the well-being in this population. The need for studies that address nurses' role in this care practice is also advocated, due to these professionals' importance in monitoring self-care and following-up the patients' support network and their respective influences on health.

Therefore, the objective of the current study is to correlate social support with self-care in people with HF.

METHOD

This is an exploratory, descriptive and cross-sectional study with a quantitative approach, carried out in the Cardiology outpatient clinic of a hospital located in the city of João Pessoa, Paraíba, Brazil. Data collection took place from December 2021 to April 2022.

The following inclusion criteria were established: being at least 18 years old, diagnosed with HF and undergoing outpatient follow-up in the institution for at least six months. Patients with clinical complications at the time of collection that precluded performing the procedure or cognitive deficits assessed by the Mini-Mental State Examination (MMSE) were not included, with cutoff points being used according to the respondents' schooling level: 13 points for illiterates, 18 for low (1-4 incomplete years) and medium (4-8 incomplete years) education and 26 for high (>8 years) schooling[13].

Sample calculation was carried out using the R statistical software, based on data contained in the hospital's computerized registration system, referring to outpatient care provided to patients with HF from February 2018 to February 2019, whose population was 211 participants,

developed a pilot study with 10% of them. From this, sample calculation was defined based on the sample mean margin of error, due to a coefficient of variation value that rendered calculation unfeasible.

Considering the diverse information collected from the pilot sample, a margin of error of +2 points was considered on the self-care scale. Therefore, with a 95% confidence level and a 5% margin of error, based on the study variables and instruments, the sample generated was 63 participants.

Data collection was conducted through individual interviews in the outpatient sector, using structured instruments to characterize the sociodemographic profile. Self-care was investigated using the European Heart Failure Self Care Behavior Scale (EHFScBS), which consists of 12 questions with a single domain. The answers to each item vary from 1 ("I completely agree") to 5 ("I completely disagree"), following a five-point Likert scale. The total score is obtained by adding up all the answers, which can range from 12 to 60[14]. Low values indicate better self-care. In the current study, the following classification was considered: satisfactory (≤20 points), moderate (from 21 to 30 points), and unsatisfactory (from 31 to 50 points)[15].

To assess social support, the Medical Outcomes Study Social Support Scale (MOS-SSS) was applied, which consists of 19 items distributed across five dimensions: Emotional, Material, Affective, Information and Social Interaction. Its answers vary from 1 ("Never") to 5 ("Always"), and the final results range from 19 to 95 points, where the higher the score, the higher the social support[16]. The following classification was considered: low social support (up to 67 points); medium social support (from 68 to 90 points); and high social support (≥91 points)[17].

Prior to the interviews, the patients scheduled for medical consultations were checked and the HF diagnosis was confirmed through medical records, as well as diverse information referring to the health conditions characterized by the professionals working in the sector. From there, the patients were referred to one of the consultation rooms provided by the outpatient clinic and interviewed after explaining the study and obtaining their agreement to the Informed Consent Form (ICF), with no patients refusing to participate.

The data were stored in an electronic spreadsheet structured in Microsoft Office Excel, with double entry in order to guarantee reliability in data compilation. They were subsequently imported to and processed in the Statistical Package for the Social Science (SPSS) software, version 22.0, for descriptive and inferential analysis.

The Kolmogorov-Smirnov test was used to verify normality of self-care, social support and their domains, showing non-normal distribution. To identify the correlation between the variables, the Spearman Correlation test was chosen, as they are non-parametric variables. Associations were considered statistically significant when $p \leq 0.05$.

This research was guided by Resolution No. 466/2012 of the National Health Council and approved by the Research Ethics Committee of the Lauro Wanderley University Hospital, belonging to *Universidade Federal da Paraíba*.

RESULTS

As for the sample, there was higher frequency of males (57.14%), age group of 60 or over (60.31%), married or in a stable union (65.07%), with five to eight study years (28.57%), unemployed (82.5%) and retired (57.14%).

It is noted that most of the participants had some comorbidity associated with HF (98.4%), with higher prevalence of systemic arterial hypertension (80.9%). In relation to HF, the diagnosis dated from one to two years ago (25.4%), the NYHA classification was in classes II (57.1%) and III (28.6%), there were hospital admissions due to HF complications (71.4%), left ventricular ejection fraction equal to or less than 40% (65.1%), and they mainly used antihypertensive medications (100%).

In relation to self-care for HF, a mean of 27.01 (±6.66) was identified. Most of the participants (60.3%) judged self-care as moderate (Table 1).

Among the EHFScBS items, "I weigh myself every day" (4.46; ±1.04) was the worst evaluated one, with the highest score; and "I take my medication according to the prescription" was the best evaluated item, with the lowest score (1.08; ±0.37) (Table 2).

In relation to social support, a mean of 80.27 (±16.48) was identified. Thus, it is evidenced that 42.9% of the participants assessed social support as high (Table 3).

In Table 4, it is observed that, among the dimensions, the highest mean score was in the Material one, with 90.95 (±16.60), and that the lowest was in Social Interaction: 80.63 (±15.56).

When investigating the correlation between social support and self-care, a negative correlation (r = -0.252) was identified, with statistical significance ($p \leq 0.05$) between the Information dimension and self-care (Table 5).

Table 1- Self-care classification in people with heart failure. *João Pessoa – PB, Brazil, 2022.* (n = 63)

Self-care classification	n	%
Not satisfactory	11	17.5
Moderate	38	60.3
Satisfactory	14	22.2

Source: Research data, 2022.

Table 2- Distribution of the mean values corresponding to the EHFScBS items in people with heart failure. *João Pessoa – PB, Brazil, 2022.* (n = 63)

Items	Mean	SD
I weigh myself every day	4.46	1.04
I exercise regularly	3.90	1.37
I limit the amount of fluids I drink (not more than 1.5 to 2 L per day)	2.71	1.57
If I gain 2 kg in a week, I contact my physician or nurse (or some health service)	2.33	1.79
If my shortness of breath increases, I contact my physician or nurse (or some health service)	2.19	1.78
I get the flu vaccine every year	2.06	1.66
If my feet and legs become more swollen than usual, I contact my physician or nurse (or some health service)	1.95	1.67
If I feel shortness of breath, I rest	1.89	1.10
If my fatigue increases, I contact my physician or nurse (or some health service)	1.79	1.39
I rest during the day	1.41	0.96
I follow a low-salt diet	1.24	0.77
I take my medication as prescribed	1.08	0.37

Source: Research data, 2022.

Table 3- Social support classification in people with heart failure. *João Pessoa – PB, Brazil, 2022.* (n = 63)

Social support classification	n	%
Low	15	23.8
High	21	33.3
High	27	42.9

Source: Research data, 2022.

Table 4 – Social support dimensions in people with heart failure. *João Pessoa – PB, Brazil, 2022.* (n = 63)

Social support dimensions	Mean	SD
Material	90.95	16.60
Affective	89.84	19.63
Emotional	81.11	27.14
Information	81.03	25.88
Social Interaction	80.63	24.61

Source: Research data, 2022.

Table 5- Correlation between social support and self-care of people with heart failure. *João Pessoa – PB, Brazil, 2022.* (n = 63)

Social support	Self-care	
	r	*p*-value
General social support	-0.191	0.133
Dimensions		
Material	-0.213	0.094
Affective	0.238	0.060
Emotional	0.205	0.107
Information	-0.252	0.046
Social Interaction	-0.148	0.247

Source: Research data, 2022.

DISCUSSION

As presented, the sample of this study was mostly comprised by male patients, aged 60 or over, married or in a stable relationship, with five to eight years of study, unemployed and retired. In relation to health, the HF diagnosis dated from one to two years ago, with the NYHA classification as classes II and III and some comorbidity associated with HF, with higher prevalence of systemic arterial hypertension.

Most of the participants judged self-care as moderate, showing that the population presented good adherence to the care practices. The same result was also found in another study, with a sample of 57 participants, carried out in a Cardiology outpatient clinic in Fortaleza, with predominance of answers indicative of satisfactory practices[8].

Investigating self-care through validated scales allows identifying the weaknesses in actions related to adherence to the treatment, so that, at each consultation, health professionals should investigate possible difficulties that promote discomfort and limit the self-care practice[8,15].

Due to the complexity inherent to HF management, the self-care practice should be well understood by the patients, so that care is provided in a way that guarantees health maintenance. For this purpose, the patients must use the medications prescribed, restrict sodium intake, try to maintain physical activity within the possibilities allowed by each condition and seek to boost the immune system, as well as monitor HF signs and symptoms and managing possible decompensation cases[3,8].

Among the items addressed, the practice that showed the highest adherence percentage in this study was "I take my medication according to the prescription". Normally, the self-medication activity is well adhered to, due to the fact that, in general, it is understood that medication

alone is sufficient to correct a clinical condition, as well as due to the medication resolution ease. What is oftentimes not well understood by the population is that medication use alone is not sufficient therapy to avoid readmissions and possible complications[3,8].

Professional guidance regarding correct medication use is significant, as possible complications due to self-medication deficits after hospitalization can lead to an increase in readmissions in brief periods of time, or even to deaths. Therefore, guidance for patients and their family support network is considered a fundamental component for positive outcomes, meeting the challenge of inadequate adherence to the pharmacological treatment[12,15].

As a challenge for the HF treatment, Nursing care faces lack of knowledge about non-pharmacological measures and, consequently, non-adherence to them[12]. It becomes necessary to reinforce the adoption of healthy habits as a complement to the pharmacological therapy, such as restriction of alcoholic beverages and cigarettes, low-sodium and low-fat diets and physical exercise, according to each patient's individuality. In this way, Nursing professionals will be able to act directly in continuous care, aiming to identify cardiovascular risks and allowing the implementation of activities that assist in disease management[12,18].

In contrast, body weight monitoring was an activity deemed to have lower self-care adherence in this study. The need for this monitoring is highlighted to help measure the patients' nutritional and volume status since, when they occur over brief periods of time, significant fluctuations may indicate deterioration of the condition[8]. On the other hand, it is necessary to highlight that access to measuring methods is not equal for the entire population; although the Public Health system has scales in Basic Health Units, not all users are able to attend the service for this practice, or acquire it privately[12,18,19].

Daily weight checks hinder adherence. Among other factors, this is because fluid retention results in an increase in body weight, in addition to the need to assess body mass in general and its risks[12,18]. Additionally, this practice aims at monitoring the emergence of clinical decompensation signs and symptoms, such as the fluid accumulation in the body, in order to direct the pharmacological therapy and its maintenance. Therefore, the population should be informed about the importance of this practice through awareness-raising activities in health services, in order to encourage greater adherence to it and reduce negative outcomes[9,20].

In relation to social support, it was identified that it was high in the current study. Social support was assessed using a scale with five dimensions: Material, Emotional, Affective, Information and Social Interaction. This scale is not intended to map the network and its extension, only focusing on the frequency with which the subjects rely on a given type of support. Therefore, having just one person that participates and who can be present in the different situations evaluated is enough to score high social support levels on the aforementioned scale[11].

The high support perception can be related to the fact that 65.1% of the sample is married or in a stable union. A study carried out on Cardiology care in the capital city of Ceará found that the presence of a social and family support network was considered a point that favored adherence to self-care practices[8]. It is inferred that the presence of a family network, due to the proximity level, can provide support that covers all dimensions related to support, in a more direct and efficient way[20].

The dimension with the highest score was Material – 90.95 (±16.60) –, which refers to support in practical and specific situations, mainly home activities and adherence to health services. In turn, the lowest score corresponded to Social Interaction – 80.63 (±15.56) –, referring to the presence of people with whom to have fun and enjoy pleasant moments. A study carried out with patients in the outpatient sector of a hospital specialized in Cardiology from Rio Grande do Sul also found better results in the Material dimension, differing in the lower ones in terms of the Informational and Emotional dimensions[11].

Material support can achieve greater results because, due to the limiting symptoms frequently caused by HF, it becomes difficult to establish certain domestic or travel practices for the individual, as well as because they are a direct form of help mainly from close family members. It is noted that family support, established mainly by the presence of a partner, provides greater adherence to self-care actions, becoming fundamental for the recovery, maintenance and stability of patients with HF[8,9,11].

The positive Social Interaction dimension, understood as the presence of people with whom the individual can have fun and enjoy pleasant moments, obtained lower results. This becomes worrying, considering that these circumstances involving management of the disease can cause emotional instability, along with feelings of sadness and inability, reducing interest in daily activities. It is noted that the family acts not only in material activities but also in providing emotional and social support[11,17].

That said, the importance of health professionals in integrating this population's support network is clear,

in order to strengthen it through dynamic guidelines in groups organized by nurses in Basic Health Units, for example, which, in addition to favoring guidance for self-care, it promotes interaction between people, which can reflect in improving the Emotional and Integration with other people dimensions. Above all, through these actions, it is also up to Nursing to screen possible depression and anxiety symptoms and know each patient's support network, in an attempt to promote autonomy and independence in people with HF[12].

In the correlation between the variables, it was identified that self-care increases as social support in the Information dimension increases. Therefore, it becomes necessary to promote health education as a fundamental component to be worked on by health professionals with these patients, aiming to improve the management of their own care. This is because, in addition to changes in daily habits, knowledge about the disease and its signs and symptoms helps maintain self-care[20].

However, it is necessary to note that there is a significant difference between what people with HF know and the way in which they adopt these life habits, due to the information range received, which is oftentimes not directly addressed by the professionals, when there is little interaction with the patients[19].

Considering that HF is a chronic and progressive disease, the patients should be involved in identifying the decompensation signs and symptoms, as the main subjects in their therapeutic plan. Through its results, a study carried out in southern Brazil found that patients are slow to recognize, or even do not even know, HF deterioration signs to seek hospital care, given that the mortality rate and worsening presented high percentages, as well as the ICU admission rate percentage[20].

Therefore, emphasis should be placed on recognizing the factors that interfere with the patients' understanding and participation in management of the disease and its treatment, in order to identify each person's knowledge level, implement effective and satisfactory strategies and involve the social support network. The purpose of these actions is to strengthen adherence to the treatment and the possibility of positive outcomes[19].

Family support is an important factor in treatment adherence. Some studies suggest that the existence of this support should be assessed by health professionals during the assistance provided[9]. Knowing this, health education practices can also be targeted at the family, as a way of reinforcing treatment maintenance as they end up becoming a motivating factor for self-care actions. It is therefore up to Nursing professionals to prepare themselves for possible questions and guidelines, in order to exercise the health education that is so present in the work practice and integrate themselves as part of the support provided[12].

LIMITATIONS

The study limitations refer to the difficulty during collection due to the decrease in the population served in this outpatient sector as a consequence of the COVID-19 pandemic, faced at the beginning of 2020, which resulted in a small sample for a more robust statistical analysis. Due to this, it is suggested that researches be produced with more comprehensive and reliable results, with larger samples and longitudinal methodologies, for example, that allow long-term monitoring and evaluation of the participants.

CONCLUSION

Based on the results of the current study, moderate self-care and high social support were observed. Self-care was statistically correlated with social support in the Information dimension, showing that the former increases as the latter increases in the Information dimension.

The findings of this study are useful, as they provide support for the planning and implementation of new proposals for care plans in Nursing assistance. Such plans may involve all of the patients' clinical and subjective needs, covering their social support network, with a view to strengthening it and turning it into an essential tool in preventing the heart failure clinical symptoms, as well as seeking to reduce the number of hospitalizations and complications.

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