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# SMOKING, ETHYLISM AND PHYSICAL ACTIVITY IN INDIVIDUALS WITH CONGESTIVE HEART FAILURE

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## ABSTRACT

**Objective:** to verify smoking, drinking and physical activity habits in individuals with congestive heart failure. **Method:** This is a quantitative study carried out from September 2017 to December 2018 at a public hospital in northeastern Brazil. The sample consisted of 103 individuals through an interview, a survey approved by the Research Ethics Committee number 2.249.362. **Results:** About 76 (73.8%) denied smoking and 86 (83.4%) denied drinking. Of those identified only 4 (3.9%) were smokers and 2 (1.9%) drinkers. A number of 23 (22.3%) abandoned smoking and 15 (14.6%) abandoned alcohol. More than half denied regular physical activity 60 (58.3%) and those who reported 43 (41.7%) commonly walk. No individual reported participating in a cardiac rehabilitation program. **Conclusion:** The health institution constitutes a strategic space for critical awareness and of social and political responsibility, providing a new attitude towards health problems and healthy lifestyle habits.

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## **INTRODUCTION**

Congestive heart failure is a syndrome caused by a disorder or loss of the heart muscle, characterized by dilation or hypertrophy of the left ventricle<sup>1</sup>. There are approximately 23 million carriers worldwide, two million are diagnosed with the disease annually. About 6.5 million people suffer from CHF in Europe, 5 million in the United States, 2.4 million in Japan and 6.4 million in Brazil. The disease is responsible for a large number of cases of emergency care and high costs of hospitalizations, which generates a marked number of early retirements due to disabilities<sup>2</sup>. Every year, approximately 240 thousand new cases of the disease are diagnosed<sup>3</sup>. People with congestive heart failure suffer major changes in their lifestyle resulting from the inability generated by the signs and symptoms, which generates an insufficient cardiac output responsible for inefficient coronary perfusion. Clinically, they present typical or nonspecific signs and symptoms that result from morphostructural and/or functional changes such as:

dyspnea, fatigue, peripheral and pulmonary edema, elevated jugular venous pressure, pulmonary crackles, liver changes, among others. It is not uncommon for them to show intolerance to daily activities, presenting themselves in a state which there is not enough psychological and/or in physiological energy to complete these activities, all as a result of the changes caused. The functional capacity for carrying out daily activities is compromised and the limitations imposed by the disease can greatly interfere with their life habits, at work and at home<sup>4,5</sup>. It is known that everyday life is not restricted to the repetitive and routine aspects of everyday life, but in a dialectical process between the event and the routine. Everyday life is a privileged place for sociological analysis as it reveals the processes of societies and certain conflicts that oppose social agents, a field of mysteries and concealments of social reality that the sociological imagination finds its great theoretical and investigative challenges<sup>6</sup>. Non-pharmacological therapy for congestive heart failure is an integral and essential part of treatment, and failure to adopt these measures puts the

effectiveness of the entire health-disease process at risk. Nonpharmacological measures concern behavioral changes in life. The constant coexistence with congestive heart failure is characteristic of a chronic health condition, especially when it is permanent and incurable, changing the individual's lifestyle, habits and social roles, and it is essential that the person with the disease perceives himself in coping. of a chronic process, to facilitate the contribution to oneself during treatment<sup>7</sup>. The promotion of self-care is defined as the encouragement of a decision-making process that individuals use to choose life habits that maintain physiological stability and the response to symptoms, as soon as they occur<sup>8</sup>. Based on the knowledge about their health-disease process, life habits may change, thus improving their quality of life and, consequently, the disease prognosis<sup>5</sup>. The identification of risky behaviors is one of the main challenges when it comes to improving people's health. Study with the objective of verifying smoking habits, alcohol consumption and physical activity in individuals with congestive heart failure.

### MATERIAL AND METHODS

Study carried out in a public hospital in the northeastern region of Brazil, of tertiary care and reference for highly complex procedures in cardiology, where the services of clinical and surgical cardiology, electrophysiology, exercise testing, electrocardiography, ergospirometry. transthoracic and transesophageal echocardiography. The referred hospital is the place destined to the attendance through medical consultations destined to clinical patients of the diverse cardiovascular affections, among them, the heart failure. The population consisted of adults with a medical diagnosis of congestive heart failure for over a year. The sample was composed of 103 individuals. Data collection was carried out through individual interviews from September 2017 to December 2018, twice a week, in the morning and afternoon shifts in a reserved hospital room. The data were collected by the researcherinterviewer himself after the explanation of the ethical procedures, guaranteeing the anonymity and confidentiality of the information. The project was sent to the Hospital's Research Ethics Committee for approval under number 2.249.362 on 09/30/2017. For the assessment of physical activity, the individual who practices any physical activity two (2) times a week for at least 60 minutes was considered active, that is, not sedentary. However, the person who does not perform any activity or less than two (2) times a week was considered inactive or sedentary<sup>9</sup>.

### RESULTS

Regarding sociodemographic data, predominated men 59 (57.3%), aged 54 to 65 years old, 25 (40.3%), brown skinned 70 (68%) and living with a partner 37 (59.6%). Table 1 below refers to the lifestyle of the study participants. There is a significantly reduced number of smokers 4 (3.9%) and alcoholics 2 (1.9%). More than half of the individuals denied smoking 76 (73.8%) and alcoholism 86 (83.4%). However, the significant number of individuals who reported abandoning smoking 23 (22.3%) and alcohol 15 (14.6%) stands out. These data reveal that there was a recognition by the majority of individuals that alcoholism impairs their health status, as many gave up the habit after the diagnosis of heart disease. Regarding the practice of regular physical activity, the majority denied regular physical activity 60 (58.3%) and those who reported it 43 (41.7%) commonly practice walking three

to five times weekly, lasting thirty minutes to an hour. A worrying fact that draws attention is that no individual reported participating in a cardiac rehabilitation program.

Tabela 1. Life habits of individuals with congestive heart failure at a public hospital in northeastern Brazil, 2017

Variables	Ν	%
Smoking		
Yes	4	3, 9
No	76	73,8
Ex-smoker	23	22,3
Ethylism		
Yes	2	1, 9
No	86	83,4
Ex-drinker	15	14,6
Physical Activity		
Yes	43	41,7
No	60	58,3
Cardiacrehabilitation		
Yes	0	0
No	103	100
Total	103	100

#### DISCUSSION

Smoking is an important risk factor, as it compromises ventricular function and can favor the development of cardiac arrhythmias and physical activity prevents worsening of the disease<sup>10</sup>. Complete abstinence from alcohol is required, especially for alcoholic cardiomyopathy, as there is the possibility of causing myocardial depression, causing cardiac arrhythmias. High and frequent alcohol consumption is associated with increased blood pressure, changes in lipids and triglycerides and an increased risk of a primary or secondary cardiovascular event. However, limited daily amounts, from 20 to 30 ml of alcohol in red wine in stable patients, with heart failure in Functional Class I (absence of symptoms during daily activities whose limitation of efforts can be compared to that expected in normal individuals) and in Functional Class II (with symptoms triggered by daily activities meaning absence of symptoms and slight limitation in physical activity and daily life), can be beneficial in the presence of coronary disease<sup>3</sup>. Physical inactivity can be explained by the limitations imposed by heart disease, being characterized by exercise intolerance, early fatigue and myopathy, culminating in cardiac cachexia, therefore, exercise programs associated with drug treatment have a positive impact on improving the physical conditions of patients. individuals preventing complications and favoring the improvement of their quality of life<sup>10,11</sup>. It is important to clarify that the performance of physical activity in patients with congestive heart failure must be periodic, under professional supervision and in compensated illnesses, since the exercise prescription must be individualized, requiring a level of activity that does not trigger symptoms<sup>5</sup>. It is known that the functional classification of congestive heart failure is a simple means of classifying the extent of the disease and categorizing individuals based on the limitation for physical activity in one of the four classes (I, II, III and IV), which represent signs and symptoms resulting from the negative progress of the disease<sup>12</sup>. Cardiac rehabilitation is defined as the set of activities necessary to favorably influence the underlying cause of heart disease, as well as how to ensure that patients have the best physical, psychological and social conditions, so that they can, through their own efforts, preserve or resume their role, as normal as possible, in society<sup>13</sup>. Cardiac rehabilitation programs are designed to decrease the physical and emotional symptoms of heart disease, reduce the

risk of sudden death, stabilize or reverse cardiac damage and increase the psychosocial and vocational status of patients<sup>14</sup>. Randomized clinical studies show that cardiac rehabilitation programs are responsible for a decrease in mortality of approximately 20-25%. There is an improvement in lipid levels, psychosocial well-being, symptoms, reduction/suspension of smoking habits, stress, among others<sup>15</sup>. There is a diversity of thoughts and attitudes regarding the discovery of the diagnosis of congestive heart failure, initially there is an attitude of denial, as the person usually prioritizes the care of the family, the daily chores, as if they could not get sick, neglecting their own health, care for their body, their life habits and their emotional life, which may later exacerbate symptoms. Each individual perceives himself differently, related to his experiences, experiences, expectations, fears, developing different feelings and reactions in coping with heart disease<sup>7</sup>. Health education has been widely discussed in the context of health promotion, understood as a strategy for educational policies and actions that aim to strengthen the subject's autonomy in maintaining and caring for health and in this aspect, it is an important issue to be discussed. with regard specifically to collective health care. Thus, one must consider the characteristics of the population so that the strategy has scope, meets the real needs and thus contributes to the promotion of cardiovascular<sup>16</sup> health. It is important that individuals understand the consequences of bad habits, the need to change them, and mainly, that the main beneficiaries of this change, and responsible for them, are themselves. The nurse as a member of the multidisciplinary team must play an important role in the educational process and in the elaboration of the care plan. The literature emphasizes that the individual's positive perception of the health-disease process and the maintenance of self-care<sup>5</sup> is essential. Follow-up strategies in lifestyle, correct use of medications, and recognition of the worsening symptoms of the disease are recommended practices for patient education and guidance, aiming to reduce or minimize possible complications as well as favoring health promotion, therapeutic adherence and well-being of the population<sup>17</sup>. It is recognized that the relationship between knowledge and selfcare are important steps for the improvement of the clinical condition and consequent decrease in the possibility of hemodynamic decompensation caused by the disease, with greater autonomy and control over it. Based on the knowledge about their health-disease process, life habits may change, thus improving their quality of life and, consequently, their prognosis<sup>5</sup>.

#### Conclusion

It is believed that the health unit is an appropriate environment to provide opportunities for dialogue about the health-disease process, especially in the contribution, strengthening and encouragement of healthy behavior practices, contributing to the reduction of morbidity and mortality. The results presented highlight the importance of health interventions to reduce undesirable lifestyles, which is a challenge for health policies and investments in human and material resources so that changes can take place in the citizen's educational process. Education seen as a social practice begins to be rethought as a process capable of developing people's reflection and critical awareness of the causes of their health problems. In this perspective, the family, educational institution, social groups, the health institution are strategic spaces of critical awareness and social and political responsibility that provide a new posture in the face of health problems, especially to encourage the formation of life habits healthy.

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