BEHAVIORAL RESPONSES AND STRATEGIES FOR THE AGE OF ELDERLY PERSONS IN THE HEART FAILURE TREATMENT

RESPOSTAS COMPORTAMENTAIS E ESTRATÉGIAS DE ENFRENTAMENTO DE IDOSOS NO TRATAMENTO DA INSUFICIÊNCIA CARDÍACA

RESPUESTAS COMPORTAMENTALES Y ESTRATEGIAS DE ENFRENTAMIENTO DE ANCIANOS EN EL TRATAMIENTO DE LA INSUFICIENCIA CARDÍACA

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How to cite this article: Ferreira MC, Pedreira LC, Souza ML, Silva CFT, Amaral JB, Oliveira LMS. Behavioral responses and strategies for the age of elderly persons in the heart failure treatment. Rev baiana enferm. 2019;33:e28023.

Objective: to know the behavioral responses and coping strategies of the elderly in the treatment of heart failure. Method: This is a qualitative and descriptive study, based on the theoretical framework of Callista Roy. Ten elderly people were interviewed in a cardiology outpatient clinic in June 2015. Results: in the category of elderly behavioral responses to treatment, adaptive problems were found in physiological modes (oxygenation, activity/rest and nutrition), self-concept (demotivation, sadness, loneliness and fear), role performance (loss of the primary role of father, worker) and interdependence (family and peer support). However, they presented some adaptation mechanisms, such as the use of reminders or an organizer for medications, reduction of processed foods and sodium in foods, and reduction of costs with registration in popular pharmacies. Conclusion: despite the fact that some adaptation mechanisms were created, the elderly still showed deficiencies in the management of heart failure, especially in relation to diet and medication use.

Keywords: Elderly. Adaptation. Cardiac insufficiency. Comprehensive Health Care Behavior and Behavioral Mechanisms.

Objetivo: conhecer as respostas comportamentais e as estratégias de enfrentamento de idosos no tratamento da insuficiência cardíaca. Método: estudo qualitativo, descritivo, fundamentado no referencial teórico de Callista Roy.

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Foram entrevistados 10 idosos acompanhados em um ambulatório de cardiologia em junho de 2015. Resultados: na categoria respostas comportamentais dos idosos frente ao tratamento, encontrou-se problemas adaptáveis nos modos fisiológicos (oxigenação, atividade/repouso e nutrição), de autoconceito (desmotivação, tristeza, solidão e medo), de desempenho de papéis (perda do papel primário de pai, trabalhador) e de interdependência (apoio familiar e dos pares). Todavia, apresentaram alguns mecanismos de adaptação, como uso de lembretes ou caixa organizadora para as medicações, redução de alimentos industrializados e diminuição de sódio nos alimentos, redução de custos com o cadastro em farmácias populares. Conclusão: os idosos, apesar de criarem alguns mecanismos de adaptação, ainda demonstraram falhas na condução do tratamento da insuficiência cardíaca, principalmente em relação à dieta e ao uso de medicamentos.

Descritores: Idoso. Adaptação. Insuficiência Cardíaca. Assistência Integral a Saúde. Comportamento e Mecanismos Comportamentais.

Objetivo: conocer las respuestas comportamentales y estrategias de enfrentamiento de ancianos en el tratamiento de la insuficiencia cardíaca. Método: estudio cualitativo, descriptivo, basado en el referencial teórico de Callista Roy. Fueron entrevistadas 10 personas adultas mayores acompañadas en una consulta de cardiología en junio de 2015. Resultados: en la categoría de respuestas comportamentales de los ancianos, frente al tratamiento, se encontraron problemas adaptables en los modos fisiológicos (oxigenación, actividad/reposo y nutrición), de autoconcepto (desmotivación, tristeza, soledad y miedo), desempeño de papeles (pérdida del papel primario de padre, trabajador) e interdependencia (apoyo familiar y de los pares). Sin embargo, presentaron algunos mecanismos de adaptación, como uso de recordatorios o caja organizadora para medicaciones, reducción de alimentos industrializados y disminución de sodio en los alimentos, reducción de costos con registro en farmacias populares. Conclusión: los ancianos, a pesar de crear algunos mecanismos de adaptación, señalaron fallas en la conducción del tratamiento de la insuficiencia cardíaca, principalmente en relación a la dieta y al uso de medicamentos.

Descriptores: Anciano. Adaptación. Insuficiencia cardíaca. Atención Integral de Salud. Conducta y Mecanismos de Conducta.

Introduction

Heart Failure (HF), identified as one of the greatest public health problems worldwide, is a chronic condition that presents multiple factors involved in its origin (Chagas disease, hypertension, alcoholism, coronary artery disease) and evolution (renal insufficiency, depression, diabetes mellitus, acute pulmonary edema, anemia)⁽¹⁻²⁾. This complex and progressive nature usually results in a high rate of readmission and mortality.

HF mainly affects the elderly population, directly interfering with quality of life ⁽²⁾, imposing limitations in the daily life, with changes related to activities of daily living, eating and practicing physical activity⁽³⁾. However, the way these people interact with the world and their context of life are important elements to generate positive or negative behavioral responses to the decision making regarding the confrontation of the disease⁽⁴⁾.

For the elderly, with already solidified habits, routine modifications and adaptations to the

disease are difficult to perform, especially when they do not have a support network that supports the maintenance of treatment (4-5). In addition, individual conditions arising from experiences, beliefs, and expectations accumulated throughout life may also hinder the process of change.

Among the factors related to poor adherence to treatment of a chronic disease are: complexity and perception of the disease, comorbidities, medication frequency/number/cost, lack of support and social support, as well as cognitive aspects related to the affected person⁽⁶⁻⁷⁾. However, the treatment process is positively affected when there is knowledge about the disease and its acceptance⁽⁶⁾.

The understanding of the object of study was theoretically supported by the Adaptive Model of the Nurse Callista Roy, based on a holistic view of the being, according to which the care recipient is understood as an adaptive holistic system capable of adjusting to changes in the environment and, in turn, affect it (8).

In this way, the study will promote knowledge and lead to an understanding of how to deal with these people, helping them to adapt to the new condition of life. It will also point out the use of nursing theory in clinical practice.

In view of these considerations, the question is: What are the behavioral responses and coping strategies of the elderly in the treatment of HF? The study aimed to know the behavioral responses and coping strategies of the elderly in the treatment of heart failure.

Method

A qualitative, descriptive study carried out in the city of Salvador, Bahia, Brazil, from June 1 to 12, 2015, in the cardiology outpatient clinic of a large public hospital, a reference in high complexity in the area of cardiology in the state. The service in question serves patients from the 417 municipalities of Bahia, corresponding to a demand, in addition to being accentuated, diversified in its social, cultural and economic aspects. The attendance of about 50 people per week in the cardiology outpatient clinic for Congestive Heart Failure (CHF) is performed on Mondays and Wednesdays by different medical professionals.

Participants were persons enrolled in the outpatient clinic who met the following inclusion criteria: age equal to or greater than 60 years; diagnosis of HF recorded in the medical chart with functional class II or III; and minimum frequency of three visits to the outpatient clinic of the study in the last six months. The excluded elderly people were those with cognitive deficits—after the Mini State Mental Examination (MMSE)⁽⁹⁾—or those with some sequel that made it difficult to understand the proposal.

A total of 65 medical records were collected during the collection period. Of these, 25 belonged to elderly people and 11 were excluded because they did not meet the other established criteria. Of the 14 elderly subjects approached, two refused to participate and two were excluded due to the unavailability of the interview, totaling 10 participants.

semi-structured, individual interview was used in a reserved room, guaranteeing the privacy of the individual. It was guided by a script containing the sociodemographic characterization (age, sex, marital education, monthly income, number of people per household), clinical and treatment condition (follow-up time, associated comorbidities, functional capacity) and treatment experience, obtained through guiding questions. In order to guarantee the confidentiality and anonymity of the participants, the interviews were coded with the letter I, representing the term "Interviewee", followed by a cardinal number, according to the sample number, ranging from I1 to I10.

The interviews lasted approximately 30 minutes. All were recorded with digital recorder after consent and transcribed in full. The data were analyzed through the Bardin content analysis, followed by all the steps recommended by this technique: in-depth reading, preanalysis, exploration, and interpretation (10). The interpretation and discussion of the results were articulated with evidence from the literature and the theoretical reference of Callista Roy (8).

Two categories of analysis were formed. The first, "Behavioral responses of the elderly to HF treatment", with the following subcategories: physiological mode – physical limitations imposed by the disease; self-concept mode – feelings involved in the daily life with HF; function mode in real life – loss of social roles; interdependence mode – social interaction. The second, "Coping Strategies for the Elderly in HF Treatment", had the following subcategories: daily use of medications; challenge of achieving food adequacy; use of formal and informal support networks; and dribbling of the scarcity of financial resources.

The research was approved by a Research Ethics Committee, following the guidelines of Resolution No. 466/2012, of the National Health Council, under Opinion No. 1,091,006 and CAAE 42439115.6.0000.0045.

Results

Of the 10 elderly people interviewed, there was an equal distribution among the genders. The age ranged from 60 to 87 years, and the average schooling was 6.9 years of study, highlighting the presence of two elderly women who reported not being able to read and write, which made it difficult to adapt to the use of medicines. Half of the elderly lived alone, 60% were single or divorced, corroborating the fact that they lived alone, and most of them had a family income equal to or lower than a minimum wage, from retirement or sickness benefits. These factors influenced the adaptation process to the treatment of HF.

Behavioral responses of the elderly to the treatment of heart failure

The behaviors that arise based on the resistance mechanism can be observed in four categories called adaptive modes (physiological, self-concept, real-life function and interdependence), a structure created by Dr. Roy, which makes it possible to evaluate the person⁽⁸⁾. From these categories the answers emerged, and the level of adaptation could be observed.

Physiological mode: physical limitations imposed by the disease

Five basic needs related to the physiological mode are identified: oxygenation, nutrition, elimination, activity and rest, and protection⁽⁸⁾.

In this study, the physiological needs of oxygenation, nutrition and activity/rest were altered in the participants:

I started to get tired, to have no mobility in the body. I have trouble going to the bank, shopping, fixing things like I did. (I10).

From time to time, at parties, I eat salty foods, I drink soda. After the party, I go on diet. (14).

When it is not so, there is a day when I am drowsy, when I spend the night and don't sleep. Twenty-four hours without sleep, looking like a zombie. (16).

Self-concept mode: feelings involved in daily life with Heart Failure

It focuses specifically on the social and psychological aspects of the person. Thus the dismay and sadness generated by disability were feelings often observed in the discourses, identified as ineffective behaviors resulting from chronic illness.

The person cannot eat lunch, cannot work, cannot do anything [began to cry]. (18).

I completely lost the desire to go out to a party, to listen to music. I've isolated myself. Because of the disease, I feel very lonely. (16).

Real-life function mode: loss of social roles

It is one of the social modes and is related to the expectations of the person about his role in society. In the situation of chronic illness, and with the limitations generated by the HF, some roles are changed. Knowing who they are, in relation to others, is a social necessity.

I always worked. Sometimes I try to do things, but the doctor says that I can't do it even in the house. It is at this moment that I despair. (17).

I lost my husband with whom I lived for 26 years. I stopped having sex with him. After six months he began to look for other women. (16).

Interdependence mode: social interaction

It refers to the behavior of social interaction of individuals and groups, focuses on the relationship of people, their purpose and reason, and involves the will and the ability to give and receive affection, respect and value. The speeches allowed observing elderly people who had the support of relatives as well as neighbors and friends, and others who did not have any support.

Sometimes when I am short on cash and when I need to buy something, I ask a sister for help. (17).

I have a granddaughter who took me to her house. But she has two children, she pays rent; she cannot help me anymore. (18).

No one helps me, only God. (I2).

Support also comes from outside the family unit. Some relied on the attention of friends or neighbors and were able, through adaptive behavior, to maintain the mode of interdependence:

My neighbor is the one who cares about me. She says if I feel sick, I'm going to sleep with her. (14).

I only have one ex-daughter-in-law. And when I need some help, such as hospitalization, I count on her. (16).

Coping strategies by the elderly in the treatment of Heart Failure

Chronic heart failure requires changes in lifestyle and commitment to therapy, which requires coping skills to adapt to the adjustments required for clinical stability. Thus, it is essential to develop strategies to control the problem capable of contributing to a better quality of life.

Daily use of medicines

Adaptation to chronic drug use is considered a difficult situation, especially when there are associated comorbidities. In some discourses, it was observed difficulties of automating future actions dependent on the prospective memory.

I have to put it in my head that I have to take the medicine, otherwise I forget. (16).

The reports of these elderly people, of starting and spending the day thinking about the obligation and the times of taking the medicines, show that they used an internal prospective strategy to improve the medication adaptation. However, the majority reported using a prospective external strategy, through changes in the environment to adapt to the new condition.

For me to remember the medicine I put it on top of the headboard, so I take it; then I put it away. (14).

In order to remember, I put everything in a box. I hold the medicine with a tape and set the time. Then I fasten it to the box so I don't forget. My wardrobe door is already open so I can see the medicine. (17).

In order to overcome the difficulties with the use of prescribed medications, with regard to the

readability and the size of the handwriting, an elderly person adopted the annotation technique, called "scheduling" by him:

He gives me the prescription, but I make a schedule to put on the refrigerator or in the room. For example, I write with bigger letters with a pilot pen, to take some medicine, on a certain schedule and the number of pills. I put it in a visible place so I don't forget it. (110).

Such an attitude promotes cognitive insight in the elderly and in their family, for the use of medications at established times, showing the importance of family participation in the adaptive process.

This granddaughter is responsible for giving me the pills on time. I go to her house, I spend the day there and at night I go back home [...] (18).

Challenge to achieve food adequacy

Non-pharmacological treatment is also essential and requires adaptation. This situation is not always easy because it requires changes in habits that are often acquired culturally and throughout life.

My food is sweet. I'm getting used to it. It's bard time, but, thank God, I'm getting used to it. (17).

I knew I could not eat fat. It was difficult, especially when a person is accustomed, as I am, since I am a cook. But we get educated little by little. (15).

Modifications in cooking, with the use of spices and condiments, were used by the elderly to encourage the consumption of certain foods without added salt.

[...] in the salad, I put some lemon, sweet olive oil and vinegar. Then I can eat. (17).

However, lack of adequate food counseling and frequent follow-up on non-pharmacological guidelines led an elderly person to adopt coping strategies that were inappropriate for the expected goal:

What I missed most was the salt. I don't put salt; I buy a pot of those ready-made seasonings, and I use a small spoon. When it is not so, I toss some ready-made sauce in the salad. (16).

In this situation, due to lack of knowledge, E6 made incorrect substitutions to the salt addition,

using seasonings and industrialized sauces with high sodium content in their compositions.

Use of formal and informal support networks

The family acts as a support for the elderly, participating in their treatment and adapting to the lifestyle changes recommended. However, when there is a weakening of social cohesion, individuals are led to a lower health situation, since social support is a factor that contributes to the elderly remain in treatment⁽¹¹⁾. To address such situations, the elderly developed coping mechanisms that minimized the isolation process, such as I2 and I4, both single and without informal support.

If I stay home, I keep thinking, so I go out to distract. I forget about the disease. I get home, and turn on the TV. (12).

I sit on the porch and soon someone comes to talk. I put my television in the bedroom with a satellite dish. When I don't want to watch TV in the living room, I watch it in the bedroom. (I4).

The elderly have also developed strategies to address the lack of formal support:

I was only able to come to the hospital because I went into the health care ombudsman's office. Financially, I couldn't afford it. (110).

The absence of formal support demonstrates the lack of preparation of Brazilian public health institutions to receive the elderly, leading them to adopt different coping mechanisms, based on their own experiences, knowledge and living conditions.

Dribbling of scarcity of financial resources

The lack of financial resources from retirement, added to the lack of formal support for the free purchase of medicines and the high cost of food, led the elderly to choices related to the therapeutic guidelines received.

My food is not right, but I can't follow it either, because the money isn't enough. (16).

For now I can buy the medicine. It would be better if the salary was higher, to have more comfort. I like traveling, going out for a walk, but I can't. (14).

In order to face the difficulty of acquiring certain drugs, the elderly adopted different coping mechanisms:

I am going to register the prescription that the doctor gave me at the pharmacy, so I can get the medicine at a lower price. (I1).

I came to get a report to take to the Health Department so I can get the medicine because it is difficult to do it at the bealth clinic. (13).

If there isn't in the health clinic, I go to the pharmacy, to see where I can buy cheaper and how I can divide the payment in the card. (15).

Discussion

Among the five needs in the physiological mode, the oxygenation, activity/rest and nutrition needs were related to the study. In the elderly interviewed, dyspnea was one of the symptoms presented, resulting from cardiac structural alterations caused by the disease, generating an ineffective behavior at low cardiac output. Thus, these elderly people tended to reduce their activities in order to avoid dyspnea and fatigue. However, this situation promotes inactivity and sedentary lifestyle, aggravating the condition of muscular atrophy and reduced functional capacity (12). In addition, elderly people with HF, even fatigued, cannot maintain adequate rest due to frequent episodes of insomnia. It is understood that the effects of poor sleep are cumulative, and chronic sleep loss puts people at risk for decreased cognitive function, depression, difficulty concentrating, social isolation, and overall reduction of quality of life⁽¹⁾.

Still in the physiological mode, nutrition appears as another need affected by HF. Acceptance of the hyposodic and hypolipidic diet is difficult. Thus, once the elderly cannot maintain this food change, there is an adaptive problem. In addition, many feel isolated, as family members continue to eat foods high in sodium, regardless of the new adaptation needs of the elderly⁽¹³⁾. Low schooling may also contribute to the difficulty of understanding and awareness of the diet to be followed⁽⁴⁾.

In this context, problems of physiological adaptation will directly influence the mode of

self-concept. It was identified, in the interviews, feelings of demotivation, sadness and depression, as well as ineffective behaviors resulting from chronic illness. These psychological changes deserve special mention, because although depression is not part of the normal aging process, it can arise due to a combination of factors, such as diagnosis of a chronic disease and loss/reduction of autonomy, making it difficult for patients to adhere to treatment⁽³⁾.

These changes are among the causes of non-adherence along with the lack of social support, poor quality of life, presence of geriatric syndromes, besides age, sex, and perception of illness, schooling, and others⁽⁶⁾. Physical, social and emotional well-being is also affected, which may interfere with the motivation of the patient to adhere to the recommendations⁽⁷⁾.

In the speeches, social isolation resulting from chronic illness arose after changes in lifestyle, the intense drug regimen and the side effects of drugs that, combined with the physical restrictions of the disease, lead to a limited capacity to participate in social events⁽¹⁴⁾. Therefore, the lack of social integration can contribute to a negative psychological state, interfering in the behaviors that promote health⁽⁷⁾.

Also in the behavioral response scenario, real-mode function changes were identified, with loss of social roles. Regardless of sex, when illness affects people, they end up being forced to abandon some socially and culturally imposed attitudes and tasks, causing discomfort to imagine that they are failing to fulfill their social role as a woman or a man⁽⁷⁾. For the elderly of the research, this situation led to ineffective behaviors of sadness, insecurity and uselessness, leading them to question about their role in the family and society.

In the study, an elderly woman reported the abandonment of the partner in the face of the limitation of HF in the maintenance of the sexual life. Although sexual function is not one of the first issues addressed, it is well known that a considerable number of patients with HF and their partners have sexual concerns that may negatively influence their quality of life, and

consequently impair their adaptation to the new situation $^{(15)}$.

There was a need for economic support, probably because they are low-income elderly people, which is an obstacle to the maintenance of treatment. However, the economic support of families is a situation that causes discomfort in the elderly, because, in addition to needing the attention and care of their loved ones, they also become financially dependent on them⁽¹⁶⁾.

Among coping strategies, the elderly used memory, through internal strategy, with mental associations, and external strategies (use of objects and/or physical locations) so they can remember to take medications⁽¹⁷⁾. Regardless of the internal or external nature of the adopted strategy, only the fact of seeking it demonstrates the motivation of these elders to adapt to the change that has occurred in their lives. This possibly impacts positively on the effectiveness of their actions.

The change in nutrition was another experiential adaptive problem. The consumption of foods with lower sodium and fat content was reported by many, even if it did not provide pleasure. A coping strategy for food adequacy was the use of spices and condiments instead of the addition of salt (18). Thus, there is a need for constant reinforcement on the diet of these elderly people, with the help of a nutritionist, seeking alternatives to improve the taste of food, avoid the misunderstanding in the use of industrialized spices rich in sodium and economically adjust the menu, reinforcing the importance of active listening of these people and the participation of the multiprofessional team in an interdisciplinary way for integral follow-up.

People, and the professionals themselves, are always re-updating their habits, ways of life and sensitivities according to historically and culturally constructed meanings and drawing up representations of health and disease. Consequently, simply adding knowledge is not enough to change behavior⁽¹⁹⁾. Therefore, it is essential to understand the elderly person as a subject that is structured in and by means of the

interaction of their various dimensions and their relations with the environment.

The health professional will influence the adherence to the treatment, as it reaches the cultural universe of the patient, establishing with him a level of communication and relationship that is effective. In this way, it is possible to intervene in a more effective way, in order to offer an integral care that encompasses all the dimensions of the elderly subject⁽²⁰⁾.

Social support contributes significantly to increase adherence to treatment and promote behavioral changes to therapy adaptation (11). It was noticed that the elderly interviewed used formal and informal support networks as a coping strategy. Those who did not have the next family went out more often to get distracted or sought ways to interact with other people. The use of television was also frequent. When necessary, they also resorted to the formal support of public health institutions.

The support network comprises a complex and dynamic process that involves individuals and their social networks with the intent of satisfying their needs, providing and complementing the resources they have and, in doing so, facing new situations. These are mutual exchanges in which both the recipients and those who offer the support benefit from giving greater meaning to life⁽²¹⁾. In this context, the role of the family deserves to be highlighted, due to its importance as a support that, when appropriate, facilitates adherence to treatment⁽²²⁾. Thus, these families often also need to be worked on to better support the person with HF in their process of adaptation to disease and treatment.

The lack of financial resources from retirement, coupled with the lack of formal support for the free purchase of medicines and the high cost of food, led the participants to frequent choices regarding the therapeutic guidelines received. Access to medication is one of the factors that determine compliance with pharmacological therapy, and the difficulty of access can lead to clinical decompensation and increased expenditure on secondary and tertiary health. In addition, when prioritizing the acquisition of

medications and adequate food, many elderly leave leisure activities, which can promote social isolation.

The understanding and interdisciplinary approach of the health team about the coping strategies of these elderly people and their families, faced with chronic illness, allows the integral care of the person and avoids blame for not being able to adapt properly to the treatment. Although it was a local study, the results point to the importance of the presence of the multiprofessional team in the follow-up clinics of these patients, often assisted only by the physician.

The study presented a limitation on the number of participants, due to the decrease in the number of elderly people attended at the outpatient clinic of the study, during the collection period, due to administrative problems in the service, in relation to medical care, since these people were attended only by this professional.

Conclusion

Several internal and external factors, such as low schooling, reduced family income, lack of family or peer support, cultural aspects, inadequate distribution of medication, only medical supervision, insufficient knowledge and personal will of individuals have been identified as responsible for facilitating and, in large part, make it difficult for the elderly to adapt to the treatment of HF. Although respondents generally expressed their adaptation to the disease and treatment, the melancholic tone perceived in the discourses shows that adaptation is a personal process, dynamic and difficult, and may suffer alterations after the stimuli received and the life experience of each elderly, influencing positive or negative behavioral responses.

Due to the lack of professional support, the elderly, for the most part, showed important shortcomings in the experience and conduct of the treatment, characterized by undesirable behaviors to treatment, especially in relation to diet and medication use.

Collaborations:

- 1. conception, design, analysis and interpretation of data: Maíra Costa Ferreira and Larissa Chaves Pedreira;
- 2. writing of the article and relevant critical review of the intellectual content: Maíra Costa Ferreira, Larissa Chaves Pedreira, Monaliza Lemos de Souza, Cláudia Fernanda Trindade Silva, Juliana Bezerra do Amaral and Lélia Mendes Sobrinho de Oliveira;
- 3. final approval of the version to be published: Larissa Chaves Pedreira, Monaliza Lemos de Souza and Juliana Bezerra do Amaral.

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Received: September 12, 2018

Approved: March 20, 2019

Published: June 21, 2019



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