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Increasing Family Capacity in Self-Care Management of Heart Failure Patients at the Heart Polyclinic of RSUD dr. Slamet Garut

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ABSTRACT

Heart failure is one of the leading causes of decreased quality of life and increased hospitalization rates in Indonesia. Effective self-care, including medication adherence, diet management, and symptom monitoring, is crucial in preventing complications. Many patients and families have limited knowledge and skills in self-care. Family involvement as a key supporter has been shown to improve patient health outcomes. Therefore, educational efforts are needed to increase family capacity in heart failure patients' self-care. To achieve this capacity, a community service activity was organized that aims to improve family knowledge and skills in caring for heart failure patients. The activity took the form of structured education at the heart polyclinic of RSUD Dr. Slamet Garut, which was attended by 20 people. The pre and post-test results showed an increase in family capacity in self-care of heart failure patients. Thus, the activities carried out are useful for increasing family capacity in the self-care of heart failure patients. This activity is expected to continue to be carried out in other similar cases to improve quality of life.

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INTRODUCTION

Heart failure is one of the major health problems in the world, including in Indonesia, with an incidence rate that continues to increase every year. According to the American Heart Association (2022), the prevalence of heart failure is expected to continue to increase due to age, unhealthy lifestyle, and comorbidities such as hypertension and diabetes. This condition occurs when the heart is unable to pump blood effectively to meet the body's needs, causing symptoms such as shortness of breath, fatigue, edema, and decreased quality of life (Yancy et al., 2017).

Self-care has a role in the successful treatment of heart failure and can have a significant impact on improving cardiac symptoms, functional capacity, quality of life, morbidity, and prognosis (Kemenkes RI, 2021). Optimal self-care is very important in preventing worsening conditions, reducing the number of repeat hospitalizations, and improving the quality of life of patients. However, various studies have shown that the level of patient compliance with aspects of self-care in heart failure cases is still low, especially regarding dietary management, physical activity, and medication use (Riegel et al., 2016). Self-care management patterns among heart failure patients and self-care activities that must be carried out include medication patterns, adhering to dietary sodium restrictions, monitoring body weight, and managing patient symptoms (Istianah et al., 2023). The lack of family knowledge and skills as the main support for patients at home is also a challenge that needs to be addressed immediately.

Family involvement in disease management has been shown to play an important role in the successful management of heart failure, ranging from setting a low-salt diet, monitoring fluid intake, medication compliance, to early detection of signs of cardiac decompensation (Jaarsma et al., 2020). Therefore, increasing family and patient capacity in self-care is a strategic step in optimizing patient health outcomes.

Based on a search on October 17, 2024, at the Heart Polyclinic of RSUD Dr. Slamet Garut, it was recorded that there were 15 patients with heart failure who performed post-hospitalization control. The results of the coordination of the polyclinic manager said that the patient could not identify the signs of symptoms that appeared, the diet that must be adhered to, and did not monitor body weight. Families also do not know the care that must be done at home to prevent recurrence.

Seeing the importance of the role of the family and the patient himself in the treatment process, structured educational efforts are needed. Through this community service activity, it is hoped that it can improve the knowledge and attitudes of families and patients in caring for themselves independently, reduce complications, improve prognosis, and support the sustainability of the quality of life of patients with heart failure.

METHOD

Activities were carried out offline at the heart polyclinic of RSUD Dr. Slamet Garut in the form of health counseling with the target of patient families in the heart polyclinic. The media used are PowerPoint and flip sheets with attachments of self-care material for heart failure patients, using simple language with the hope that it can be understood by families and ordinary people. The activity begins with an opening, pretest, followed by the provision of material, and ends with a written post-test to determine changes in participants' capacity regarding self-care in heart failure patients. The activity was held on Thursday, October 24, 2024, from 09.00 to 10.00 WIB. The pre- and post-test instruments consisted of 25 (questions) questions with a score of 4 points for each question item.

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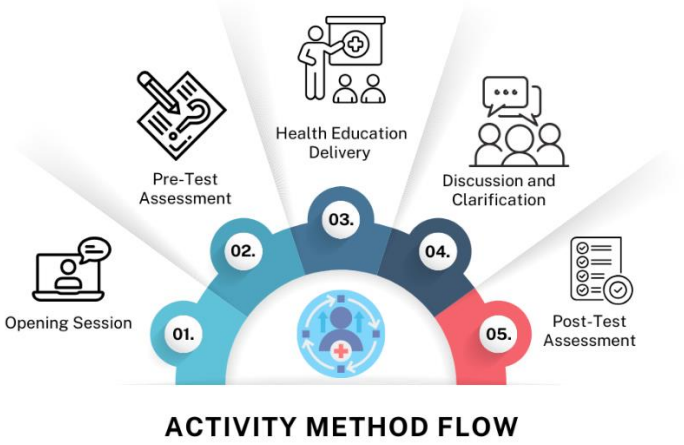

FIGURE 1. Flow of Health Education Activities for Heart Failure Patient Families

RESULTS AND DISCUSSION

This structured education activity is a community service activity program, which was held on Thursday, October 24, 2024. Preparations were conducted for one week, consisting of material preparation, coordination with the room, preparation of activity media, and completion of the required documents such as attendance lists, pre- and post-test measurement instruments, and door prizes for the best participants.

Educational activities in increasing family capacity in self-care management of heart failure patients were attended by 20 participants. Most participants were in the age group >60 years as many as 13 people (65%), then ages 18-59 years, as many as 7 people (35%). In addition, most of them were female namely 16 people (80%), and 4 male (20%).

TABLE 1. Demographic Data of Health Education Participants

No	Demographic	Frequency (n=20)	Percentage (%)
1.	**Age (Years)**		
	18-59	7	35%
	>60	13	65%
2.	**Gender**		
	Male	4	20%
	Female	16	80%

Next will be presented the average value of the Pre-test and post-test of the activity participants

TABLE 2. Average of pretest and posttest results

Activity	Average Value	Highest Value	Lowest Value
Pre-test	62	81	49
Post-test	78	100	85

Based on Table 2, shows that after the implementation of the Patient Family Capacity Building Activity in the management of self-care of heart failure patients, there is an increase in the average post-test score of 85, where previously the pretest average score was 62. This shows that there is a significant increase in family knowledge regarding the self-care of heart failure patients after education. This increase includes an understanding of the management of a low-salt diet, the importance of medication compliance,

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monitoring of early symptoms of cardiac decompensation, and management of the patient's daily physical activity.

This increase in knowledge is in line with the theory proposed by Riegel et al. (2016), which states that structured family education can increase their capacity to support self-care of patients with chronic diseases, including heart failure. When families have adequate knowledge, they are better able to detect changes in the patient's condition earlier, take preventive action, and encourage patients to comply with the treatment plan that has been developed. Knowledge is a result of curiosity through the sensory process, especially the eyes and ears, of certain objects. Knowledge is an important domain in the formation of open behaviour (Donsu, 2017).

In addition, Jaarsma et al. (2020) emphasized that practice-based and interactive educational approaches are more effective than one-way approaches. The educational model used in this study, which combined counseling, simulation, and case discussion, was shown to increase participants' engagement and strengthen their recall of the information provided. Family-based education is proven to improve health literacy and self-care management behaviour in patients (Kurnia et al., 2025).

Family involvement in heart failure patient education programs was positively associated with improved patient quality of life and reduced rates of repeat hospitalization. Lee et al. (2019). Thus, community-based educational activities that involve families as part of the patient's support system are effective in increasing knowledge and have the potential to have a long-term positive impact on heart failure disease management at the household level.

The increase in family knowledge after structured education shows that educational interventions have a strong influence in strengthening the understanding of self-care management of heart failure patients. Before education, most families only understood a small part of patient care, such as the importance of taking medication, but lacked understanding of other aspects, such as low salt diet, symptom monitoring, physical activity regulation, and the importance of patient emotion management.

After the education, the family understood that self-care of heart failure patients is a complex process that includes many components, the first of which is symptom management. Knowledge of early signs of decompensation, such as leg swelling, shortness of breath, and sudden weight gain, was improved. This understanding is important to prevent delays in treatment that may worsen the patient's condition (Riegel et al., 2009). Secondly, Medication adherence, families become more aware that regularity of medication consumption, especially diuretics, ACE inhibitors, and beta-blockers, is key to preventing recurrence and worsening of heart conditions (Wu et al., 2012). Third is a Low Salt Diet and Fluid Control. Families can understand that controlling sodium intake (<2 grams/day) and limiting fluid intake (1.5-2 liters/day) can help reduce cardiac workload and prevent excess fluid retention (Ponikowski et al., 2016). Fourth is Physical Activity and Rest. After education, families better understand the importance of a balance between light physical activity and rest time to prevent fatigue and improve the functional capacity of patients (Jaarsma et al., 2020). Fifth is Emotional Management, psychological aspects are also a concern. Families understand that emotional support can improve patient compliance with treatment and improve their quality of life (Buck et al., 2015).

According to Riegel et al. (2016), increased knowledge about self-care of heart failure patients is closely related to increased family self-efficacy in supporting patients. This is important because the family is often the main party in monitoring the patient's condition at home, making early decisions when there is a change in condition, and encouraging healthy living behavior. Good family knowledge after education is also in line with the concept of self-care of heart failure developed by the Heart Failure Society of America, which emphasizes that family involvement in care determines the success of disease management at home (Riegel et al., 2009).

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These results strengthen the evidence that systematic and structured education, involving active methods such as discussion, simulation, and the use of clear educational media, can significantly improve family knowledge and have a positive impact on the continuity of patient self-care management at home.

(a) (b)

(c) (d)

FIGURE 2. Documentation of structured educational activities to increase family capacity in the self-care of heart failure patients at the Heart Polyclinic of RSUD dr. Slamet Garut

CONCLUSION

Structured educational activities to increase family capacity in self-care management of heart failure patients are useful to increase family capacity in self-care management of patients with heart failure, with indicators of increasing the average post-test score compared to the pre-test.

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