



## A DESCRIPTIVE STUDY OF FAMILY TRANSITIONAL CARE FOR PATIENTS WITH CARDIOVASCULAR DISEASE

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### ABSTRACT

Cardiovascular disease is a disease with the highest percentage of non-communicable diseases that cause death worldwide. Several cardiovascular diseases such as hypertension, coronary heart disease, heart failure, and myocardial infarction require the same ongoing care plan, both in the hospital and at home. Transitional care is very important for patients with cardiovascular disease and the management post hospitalization is conscientious to prevent re-hospitalization. Objective : This study aims to describe the care transition of families of patients with cardiovascular disease to post-hospitalization. Method: The research design uses quantitative research with descriptive methods. The research was conducted in January - April 2023 using the accidental sampling technique with total of 78 respondents at the Tangerang Private Hospital using the Family Caregiver Activation in Transitions Tool (FCAT) instrument. Data were analyzed using univariate analysis. Results: The results showed that most of the respondents (55.2%) had high or good transitional care. While others (44.9%) are in the low category. Conclusions : The ideal transitional care needs multidisciplinary teams to collaborate. Nurses play a crucial part in the discharge process by coordinating care and communicating with significant parties such as families and community providers to facilitate smooth transfers of care. Further study related to nurses' abilities to deliver appropriate transitional care is also required in the future.

Keywords: cardiovascular disease; patient discharge; transitional care

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### INTRODUCTION

One of the leading causes of global mortality and reduction in human quality of life is cardiovascular disease (CVDs). Also, Cardiovascular disease as a non-communicable disease globally contributes as much as 30% of causes of death (Frieden et al., 2020). CVDs mortality become more common in middle-low-income country related to limited qualified health care access and incapability to manage the contributed risk factors (Mensah et al., 2019). As a middle-income country, Indonesia is undergoing significant technological growth, environmental changes, and lifestyle transitions from traditional to modern living. These changes and transitions have altered the illness pattern in society, which is currently dominated by cardiovascular diseases and other non-communicable diseases (Purnamasari, 2019).

Meanwhile in Indonesia, the 2018 Basic Health Research (RISKESDAS) states that there are at least 15 out of 1,000 people or around 2,784,064 people in Indonesia who suffer from cardiovascular disease. The prevalence of cardiovascular disease that is often experienced is the first order with stroke with a percentage of 26.9%, hypertension ranks second with a

percentage of 12.3%, ischemic heart disease ranks fifth with a percentage of 9.3% and other heart diseases rank seventh with percentage of 7.5% (Wihastuti et al., 2016) The most common cardiovascular diseases that occur in hospitals are hypertension, stroke, CAD (Coronary Artery Disease) and Cardiac Heart Failure (Messinger-Rapport & Sprecher, 2002). Most of these cardiovascular diseases require hospital services at the preventive, curative or rehabilitative levels. In cardiovascular diseases that must require hospitalization, the length of hospitalization of patients with cardiovascular disease impacted the complexity of the disease and health care systems including the increasing expenses and bed capacity (Daghistani et al., 2019) Most patients with cardiovascular disease require readjustment when they return home from the hospital. In addition, the patient's quality of life in the physical domain which continues to decline also requires adjustment or good transition care when at home (Son et al., 2020) Therefore, social support, especially family support as a caregiver, is very important or one of the most significant predictive factors for readmission and in improving the quality of life of patients with cardiovascular disease (Polsook & Aunguroch, 2021). Therefore, the role of nurses as educators and rehabilitators in providing comprehensive and holistic care received by patients with cardiovascular disease in hospitals is expected to be accepted by patients and families who are nursing care providers at home (Umara, 2018). Nurses as educators and rehabilitators for patients and their families is to provide quality transitional care. Transitional care is a transitional activity designed to ensure patient travel between different locations or different levels of care at the same care location. It has an impact on the quality of patient care from hospital to home because it must go through a complex process that requires good coordination between information sent and received (Rasmussen et al., 2021; Shahsavari et al., 2019).

The main goal of transitional care is to prevent repeated treatments or readmissions with a worse severity, improve and maintain the patient's health condition, prevent side effects after returning home related to drugs that are consumed inappropriately, as well as missed further contracts (Shahsavari et al., 2019; Stamp et al., 2014). Transition of care can be optimal if the patient and family have readiness knowledge about the disease process, signs and symptoms of worsening and management according to the patient's condition, therefore family support is important in providing transitional care (Mai Ba et al., 2020; Stamp et al., 2014) The family is the closest person to the patient and the patient will feel safe and happy when he gets support and attention from his family (Kitko et al., 2020). Forms of family support that can be given include preparing medicines to be consumed, diets recommended by doctors, scheduled follow-up plans, and having transportation and emergency health service numbers when something happens.

Transitional care is very important for patients with cardiovascular disease and the management post hospitalization is conscientious. Recently, there's no updated and comprehensive study related to transitional care of cardiovascular patients yet. The present study investigated the description of transitional care among patients with cardiovascular disease and families in post-hospitalization.

## **METHOD**

This research is a quantitative research using cross-sectional study. The study was conducted at a private hospital in Tangerang, Indonesia with families of patients with cardiovascular disease who were hospitalized as the study population from January – March 2023. The researcher used accidental sampling technique in determining the research sample with Slovin formula to determine the size of sample. There are 78 respondents enrolled in this study within the time frame. The instruments used in this research is the FCAT (Family Caregiver

Activation in Transition) questionnaire and short sociodemographic survey. This study has passed validity and reliability tests with the results of Cronbach's alpha 0.793 and 2 items that are invalid with N = 30. The ethical consideration aspects of this study are confidentiality, justice and non-maleficence. This study has passed the ethical review from Faculty of Nursing Ethical Committee, UPH with letter number No. 042/KEPFON/I/2023. To analyze the results, a univariate data analysis was performed using the statistic software, SPSS IBM. The descriptive results consist of frequency distributions and percentages. Sociodemographic factors, transitional care description and discharge planning are provided in the tables.

## RESULTS

The results of family sociodemography found that the average respondent was at the age of 26-35 years (25.6%). In terms of gender characteristics, it was found that most of the respondents in this study were female, with a total of 50 people (64.1%). Characteristics based on family relationships with respondents, show that most of the respondents' family relationships as children of 37 people (47.4%). Most of the respondents live in urban areas 48 (61.5%). Based on the characteristics of the last education, it shows that most of the respondents have a high school education, 35 people (44.9%). Income characteristics show that most of the respondents have income > 3,500,000 (52.6%). Characteristics the type of insurance most of the respondents used PBI (Recipients of contribution assistance) Health Insurance as many as 75 (97.4%) respondents.

Table 1.  
Sociodemographic Overview of the Patient's Family

Sociodemographic	Categories	f	%
Age	<15 years old	0	0
	15-64 years old	75	96,2
	>65 years old	3	3,8
Gender	Male	28	35,9
	Female	50	64,1
Family Relation	Parents	0	0
	Spouse	37	47,5
	Siblings	4	5,1
	Child	37	47,4
Place of Residence	Urban	48	61,5
	Village/District	30	38,5
Education	Elementary	4	5,1
	Junior High School	9	11,5
	Senior High School	35	44,9
	D1,D2,D3	7	
	S1,S2,S3	23	
Income (Rupiah)	<1.500.000	6	7,7
	1.500.000 – 2.500.000	4	5,1
	2.500.000 – 3.500.000	27	34,6
	>3.500.000	41	52,6
Health Insurance	National Health Insurance (JKN)	75	97,4
	Private Insurance	2	2,6

The results of the univariate analysis of transitional care showed that 43 out of 78 respondents had good transitional care with presentation (55.1%) with a comparison of respondents who had poor transitional care of 35 people with presentation (44.9%) of the total (100%).

Table 2.  
Transitional Care Overview (n=78)

Category		f	%
Transitional Care	High	35	44,9
	Low	43	55,1
	Total	78	100,0

In other words, the results obtained in the transition care analysis show that most of the respondents or patient families have good activation in carrying out transitional care after undergoing treatment at the hospital. Whereas in the results of the description of discharge planning documentation, it was found that the majority of respondents did not have discharge planning documentation in the Inpatient Medical Record (IMR), namely 46 respondents (58.9%).

Table 3.  
Characteristics of Discharge Planning (n=78)

Documentation Discharge Planning	f	%
Yes	32	41, 1
No	46	58, 9

Where as in the results of the description of discharge planning documentation, it was found that the majority of respondents did not have discharge planning documentation in the Inpatient Medical Record (IMR), namely 46 respondents (58.9%).

## DISCUSSION

Based on the results of the data analysis that was carried out by the researchers, there were 43 out of 78 respondents (55.1%) who had high or good post-hospital transitional care. This is supported by the presentation of respondents' answers above 50% who gave responses that agreed or strongly agreed to specific statements related to transitional care contained in the questionnaire. Some statements good transitional care in the results of this study is illustrated by the family's ability to ensure the presence of patients on each control schedule. This is supported by the research which shows that one of the factors that influences adherence to treatment control in patients is monitoring by health professionals and patients' relatives to ensure that patients follow all of the rules for the following therapy (Vedanthan et al., 2016). The description of family activation in providing good transitional care in the study's findings is exemplified by family knowledge of the patient's health status, particularly when experiencing bad (Babaei & Abolhasani, 2020). Patients with cardiovascular disease have a significant re-hospitalization rate, which can be attributed to the severity or worsening of their disease, as well as trigger events originating from the cardiovascular system itself, such as tachyarrhythmias (Al-Tamimi et al., 2021). Therefore, the level of family knowledge, especially when the patient's condition worsens, is very important in transitional care that will be carried out by post-hospitalized patients (Babaei & Abolhasani, 2020; Vedanthan et al., 2016).

According to the study's findings, family caregivers' lack of knowledge, skills, and resources are significant obstacles in providing effective care (M. Naylor & Keating, 2008). Family caregivers frequently lack access to a health expert who will respond to queries and concerns in a timely manner, making early detection and treatment of an older adult's health problems beyond their abilities. Improvements are needed to prepare family caregivers for their duties during important transitions to address these difficulties. A full assessment of each caregiver's requirements should be undertaken at the time of the older adult's hospitalization, which will require new tools and further time for health experts to teach family caregivers (M. D. Naylor, 2000; M. Naylor & Keating, 2008). Families should prepare questions by writing down

anything they don't understand or still have doubts about the disease, examination findings, and therapy received, so that nothing is overlooked when the control schedule is with the doctor. This record is considered very significant since it aids in remembering and improving the quality of transitional care at home, beginning with drug allergies, serious illnesses experienced, surgeries experienced, and drugs taken in, so that they avoid making mistakes or forget when getting treatment.

Also, low family support in transitional care is also caused by the lack of families who have pharmacists who can be contacted if they have questions about treatment (Babaei & Abolhasani, 2020). The availability of a trusted pharmacy is associated with a high rate of re-hospitalization in the incidence of patients with cardiovascular disease. Study results shows that increasing medication reconciliation in the form of facilitation by trusted pharmacists and health education strategies is an effective way to reduce the rate of re-hospitalization (Hume & Tomsik, 2014). However, in this study, family support in providing the need for pharmacists was not well described, where many respondents gave slightly disagree answers and agreed to have a score of 23.1% which was not too much different from the slightly disagree answer with a value of 20.5 % (Hume & Tomsik, 2014).

The family ability in carrying out post-hospital transitional care is also influenced by the sociodemographics of the family as caregivers especially the age. In the USA, data from the National Alliance for Caregiving & AARP states that the average family age as a caregiver is 49 years, female with an education level from high school to university (Weber-Raley & Smith, 2015). This is similar to studies in Indonesia assessing the demographic characteristics of family caregivers, which emphasizes the patient's relationship, namely as a spouse. This clarifies how the age of caretakers in Indonesia is classified as early elderly (Teti Rahmawati, 2019). Being older may have an influence on caregivers while providing care for patients, diminishing the quality of transitional care. This contradicts the research findings, indicating the characteristic respondent is between the ages of 26 and 35 which are in productive age range. The existence of an average productive age derived from the findings of this study confirms the findings of the percentage of respondents' income characteristics, which show that most respondents (52.6%) had incomes greater than \$3,500,000. In terms of the final educational qualities, 44.9% of respondents had a senior high school diploma, while the remaining 29.5% were college graduates. In addition, based on the results of the study as many as 47.4% of respondents have a relationship as the child of the patient. These family characteristics may impact the ability for family in carrying out good transitional care.

The ideal transitional care needs multidisciplinary teams to collaborate (Mitchell et al., 2012). Nurses play a crucial part in the discharge process by coordinating care and communicating with significant parties such as families and community providers to facilitate smooth transfers of care (Graham et al., 2013). Furthermore, pharmacists can play an important role in drug safety during care transitions by performing medication reconciliation and providing discharge education. Pharmacists can help patients understand their prescriptions and get them after they leave the hospital (Graham et al., 2013; Mitchell et al., 2012). In the results of this study, it was discovered that a total of 58.9% of respondents lacked appropriate discharge planning documents. Effective discharge planning can help prevent medical errors during transitions of care, which are recognized to be a sensitive time for patients. Discharge planning should involve both the patient and the caregiver and should begin as soon as possible during the period of hospitalization (Gledhill et al., 2023; Gonçalves-Bradley et al., 2022). In addition, in this study there were also several research limitations which included

limited time and a lack of explanation regarding the patient's residential address in the patient's family's sociodemographic picture.

## **CONCLUSION**

According to the study's findings from the description of family support in providing post-hospital transitional care at one of Tangerang's private hospitals, the majority of respondents (55.2%) received high or good transitional care. The majority of responses were women, with an average age of 26-35 years. Respondents were identified as the offspring of patients who live in metropolitan regions (61.5%) and have a high school education on average. Additionally, 58.9% of respondents did not have any documentation of their hospital discharge plans. The researchers attempted to formulate some recommendations that should be helpful to all parties involved based on the findings of a study on the activation of families of patients with cardiovascular disease toward care during the transition to post-hospitalization at a private hospital in Tangerang. Families may give more thought to the various aspects of family support that are still lacking to provide transitional care at home after hospitalization. For example, by helping patients take important notes about prescriptions or things they don't understand, which they may then bring up with the doctor. In addition, the patient's name, allergies, and condition may be noted by the family. Additionally, the researchers suggest that the hospital actively integrate discharge planning, which is aimed and comprehensive not exclusively for the patient, but also for the family or caregiver to ensure patients and families can comprehend any instructions regarding the patient's health. Also, the nurses who should implement discharge planning from admission to discharge. Further investigation of nurses' abilities to deliver appropriate transitional care is also required in the future.

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