CONGESTIVE HEART FAILURE SELF-MANAGEMENT EDUCATION AND READMISSION AFTER HOSPITALIZATION

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ABSTRACT

Background: Congestive Heart Failure (CHF) is a condition where the heart can no longer pump blood to the body tissues either to the entire body (systemic circulation) or to the lungs (pulmonary circulation). CHF is a clinical syndrome in patients with structural abnormalities and heart function. Heart function impairment may be a systolic or diastolic function disorder, heart rhythm disturbance, or preload and after load mismatch. This condition can cause death to the patient. Deaths from CHF range from 20-50% per year, in addition CHF is a disease that requires readmission . Frequency of CHF patient readmission by 45% per year.
Purpose: This study aims to analyze the relationship of congestive heart failure self-management education and readmission after hospitalization
Methods: The study was conducted at ICCU Tidar Magelang hospital with 27 CHF patients who had readmission. The sampling technique was done by consecutive sampling technique. Data analysis in this study using Chi square. The result of statistical test (Chi Square) shows that 2 cells (50%) with expected value <5 means the cells (boxes) whose expected value is below 5 by 50%. The minimum expected value of 2.07 means no expected value <1. Continuity Correction with p = 0,000. Fisher's Exact Test p value = 0,000.
Resuts: The results of Symmetric Measure table (correlation test) obtained by the value of Contingency Coefficient (r) = 0.674 with p = 0,000.
Conclusion: The conclusion of this statistical test is that there is a correlation between Experience of Self-Management Education (SME) and readmission of CHF patients.

Keywords: Congestive Heart Failure, Self-Management Education, Readmission, Hospitalization

INTRODUCTION

Congestive Heart Failure (CHF) is the inability of the heart to maintain adequate cardiac output to meet metabolic and oxygen demand in tissues despite adequate venous return (Smeltzer & Bare, 2013). CHF patients require intensive treatment compared with other diseases. CHF patients are treated in a special room, the Intensive Cardiac Care Unit (ICCU). ICCU is a handling unit for patients with heart problems. CHF is a heart disease that continues to increase incidence and prevalence every year. Research has been done to determine the pathophysiology and its treatment but CHF morbidity and mortality rate is still increasing (Ardiansyah, 2012).

Deaths from CHF range from 20-50% per year, in addition CHF is a disease that requires readmission even though outpatient treatment has been given optimally. Frequency of CHF patient readmission by 45% per year (Andrianto, 2008; Hidayah & Wahyuningtyas, 2018). A total of 5-10 respondents suffer CHF from the world's 1,000 population (Mosterd & Hoes, 2007). American Heart Association (AHA) in 2012 reported that 5.7 million Americans suffer from CHF. CHF patients undergoing readmission worldwide of 1,094,000 respondents (Padila, 2012).The high number of readmission is one result of poor patient Experience of Self-Management Education (SME) and patient ignorance of the disease (Blauer, Frei, Schnepp, & Spirig, 2015). Poor patient education and patient ignorance of the disease are the cause of the high incidence of such patients being readmission at the hospital in a relatively close time frame. This causes the need for CHF patients to obtain optimal treatment by providing health education. Information sharing aims to increase knowledge, understanding, change patient and family behavior to prevent complications, and remedial treatment (Blauer, Frei, Schnepp, & Spirig, 2015).

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RESEARCH METHODS

The data collection in this study began on 31 January - 8 March 2018 at ICCU Tidar Magelang hospital. Respondentss who are in accordance with the inclusion criteria are further informed consent. This study uses data from 27 respondentss. The sampling technique was done by consecutive sampling technique, that is all subject treated at ICCU Tidar Magelang hospital by fulfilling criteria as research subject. Selection of respondentss adapted to the criteria of inclusion then researchers do informed consent on respondentss who are willing to be subjects of research. The subject is given the opportunity to accept or refuse to be a research respondents.

This study uses data collection tools and procedures that are in accordance with the theme of research. Data collection tool in this study is a questionnaire that contains questions related to independent variables. The questionnaire of this study using a questionnaire that has been standardized and has been tested the validity and reliability and declared valid as a research instrument. The corrected item total correlation is above r table, with r value > 0.362, so all questions are valid. The value of r alpha (α Cronbach) > 0.6, so that all questions are reliable. Data analysis in this study using Chi Square.

RESEARCH RESULTS

Table 1. Characteristics of Respondentss Based on Readmission Frequency and Experience of Self-Management Education (SME) (N = 27)

Characteristics of Respondentss	Frequency (n)	Percentage (%)
Readmission Frequency		
a time	7	25,9%
> 1 times	20	74,1%
Experience of Self-Management Education (SME)		
have	8	29,6%
never	19	70,4%

The results of data analysis of respondents characteristics based on table 1. shows that 20 respondents (74.1%) have frequency of readmission > 1 times, 19 respondents (70,4%) never have Experience of Self-Management Education (SME) during hospitalization.

Table 2. The Result of Statistical Test Based on Chi-Square Test Analysis

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	22,444[a]	1	,000		
Continuity Correction[b]	18,119	1	,000		
Likelihood Ratio	24,875	1	,000		
Fisher's Exact Test				,000	,000
Linear-by-Linear Association	21,613	1	,000		
N of Valid s	27				

a. 2 cells (50, 0%) have expected count less than 5. The minimum expected count is 2, 07.
b. Computed only for a 2x2 table

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The result of statistical test (Chi Square) based on table 2. shows that 2 cells (50%) with expected value < 5 means the cells (boxes) whose expected value is below 5 by 50%. The minimum expected value of 2.07 means no expected value < 1. Continuity Correction with p = 0,000. Fisher's Exact Test p value = 0,000. The conclusion of this statistical test is that there is a correlation between Experience of Self-Management Education (SME) and readmission of CHF patients.

Table 3. The Result of Statistical Test Based on Symmetric Measure

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	,674	,000
N of Valid s		27	

The results of Symmetric Measure table (correlation test) based on table 3. obtained by the value of Contingency Coefficient (r) = 0.674 with p = 0,000. The conclusion of this statistical test is that there is a correlation between Experience of Self-Management Education (SME) and readmission of CHF patients.

DISCUSSION

Chronic Heart Failure (CHF) is a clinical syndrome of heart failure that causes death with the highest rates of occurrence in the world (Gazquez, Holguin, & Cortes, 2012). Unhealthy lifestyle causes the high prevalence of this disease. Some of the factors causing CHF disease include smoking habits, unhealthy diet, economic level, and even education level (Alves, Souza, Brunetto, Perry, & Biolo, 2012; Meng, Musekamp, Seekatz, Glatz, Karger, & Kiwus, 2013).

Poor patient education and patient ignorance of the disease is a cause of the high incidence of such patients are re-treated (readmission) in the hospital in a relatively close time. This causes the need for CHF patients to obtain optimal treatment by providing health education. Information sharing aims to increase knowledge, understanding, change patient and family behavior to prevent complications, as well as readmission (Mosalpuria, 2014).

Experience of Self-Management Education (SME) is an interactive process between patients, teams of health care providers, and patient families that encourage new knowledge acquisition, attitudes, and skills through practice and experience (Smeltzer & Bare, 2013). Experience of Self-Management Education (SME) also serves to improve patient self efficacy, support patient recovery, improve patient empowerment, and prevent death (Mosalpuria, 2014). Provision of comprehensive Experience of Self-Management Education (SME) programs in CHF patients is beneficial to restore physical abilities following the onset of an attack, so recurrence and preventive treatment can be prevented (Smeltzer & Bare, 2013).

The high rate of readmission is one result of poor patient Experience of Self-Management Education (SME) and patient's ignorance of the disease (Blauer, Frei, Schnepp, & Spirig, 2015). This opinion is also consistent with (Bradke, 2009; Sabrian, 2015) study that the low Experience of Self-Management Education (SME) may affect the incidence of readmission in CHF patients, as well as non-adherence to drug use, inadequate communication of health providers, and the absence of discharge planning when CHF patients return from the hospital.

CONCLUSION AND SUGGESTIONS

The result of statistic test shows that there is no Experience of Self-Management Education (SME) to 19 respondents (95%) with readmission frequency > 1 time and no respondents given Experience of Self-Management Education (SME) (0%) with readmission frequency > 1 time. Respondentss who were not given 1 (5%) Experience of Self-Management Education (SME) with 1 year readmission rate, while Experience of Self-Management Education (SME) provided 7 respondents (100%) with the frequency of readmission once. The result of statistical test (Chi Square) shows the Continuity Correction with p = 0,000. Fisher's Exact Test p value = 0,000. The results of Symmetric Measure table (correlation test) obtained by the value of Contingency Coefficient (r) = 0.674 with p = 0,000.

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The conclusion of this statistical test is that there is a correlation between Experience of Self-Management Education (SME) and readmission of CHF patients. This study may be a nursing intervention aimed at improving CHF compliance with readmission , such as providing Experience of Self-Management Education (SME) and motivation in the form of social support for re-treated patients.

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