

THE CORRELATION BETWEEN SELF-CARE BEHAVIOR AND THE SELF-EFFICACY OF HYPERTENSIVE ADULTS

Ratna Puspita Adiyasa^{1*}, Bea Gracia M Cruz²

¹ Bethesda Yakkum Institute of Health Sciences

² Our Lady of Lourdes Hospital Phillipine

Email*: adiyasa@stikesbethesda.ac.id

Abstract

Introduction: Medication adherence is critical to successful of hypertension control, and other effort to maintain blood pressure for hypertensive adult is lifestyle modifications involving healthy eating, sodium reduction, and increased physical activity. A person's behavior to maintain their health condition including their high blood pressure can be affected by their self-efficacy. The purpose of this study is to assess the self-care behavior of hypertensive adults to examine its relationship with the self-efficacy in order to propose inputs to the development of lifestyle program. **Methods:** The descriptive correlation method of quantitative research utilized in this study. The respondents of this study consisted of 120 hypertensive adults. The self-care behavior and self-efficacy of hypertensive adults were assessed use questionnaires and statistically tested with pearson-r. **Results:** The characteristic of respondents in this study were mostly female (76.7%), age \geq 60 years old (57.5%), and graduated from Senior High School (59.2%). The pearson-r results showed that the computed T of 4.705 was greater than tabular value of 1.96 so that the null hypothesis was rejected. **Conclusions:** The characteristic of respondents in this study were mostly female (76.7%), age \geq 60 years old (57.5%), and graduated from Senior High School (59.2%). There is a significant relationship between self-care behavior and self-efficacy of hypertensive adults.

Keywords: behavior; hypertension; self-care; self-efficacy

INTRODUCTION

Hypertension is considered as a quite and dangerous disease for deaths worldwide because it typically has no warning signs or symptoms. It is contributing at least 45% of deaths due to cardiovascular diseases (CVDs) and 51% of deaths due to stroke (World Health Organization, 2016). In Indonesia, hypertension has been known as the number one of non-communicable diseases that leads to deaths. Based on the data reported by Ministry of Health of Republic Indonesia (2014), the number of people with hypertension in Indonesia (age > 18 years old) has been reached 25.8 percent and only 0.4 percent consumed hypertensive drugs.

Hypertension is a lifelong condition, means once elevated blood pressure identified, it should be monitored at regular intervals (Smeltzer et al., 2010). In addition, (Porth, 2011) explained that uncontrolled hypertension was increasing the risk for further complications, such as left ventricular hypertrophy, heart failure, atherosclerosis,

kidney disease, retinopathy and stroke due to an increased demand of the heart and on the vessels of the arterial system. In order to avoid that complication, those who have diagnosed with hypertension is expected to improve their self-care behavior.

According to Bhandari et al., (2012), self-care can be defined as "an activity that a patient undertakes intending to improve health or prevent disease". The purpose of self-care behavior is to promote a person's well-being, because of their awareness of the time frames on behalf of maintaining life, continuing personal development and a healthy functional living (Octaviano & Balita, 2008). Furthermore, medication adherence is critical to the successful of hypertension control, and another effort to maintain blood pressure for a hypertensive adult is lifestyle modifications involving healthy eating, sodium reduction, and increased physical activity (Simces et al., 2012).

A person's behavior to maintain their health condition including their high blood pressure can be affected by their self-efficacy. Self-efficacy is commonly defined as the

belief in one's capabilities to achieve a goal or an outcome (Kirk, 2013). Moreover, Mularcik (2010) believed that self-efficacy is a component of implementing lifestyle changes that can promote improvement in chronic disease, including hypertension. People with high self-efficacy have a strong belief that they can make specific changes as an improvement in their health. On the other hand people with low self-efficacy have a profound understanding they can make changes in their health behavior. Albert Bandura introduces the theory of Self-Efficacy suggest sources that contribute to developing and forming self-efficacy judgements of individuals, namely (1) Perceived self-belief; (2) Vicarious experiences; (3) Social persuasion; (4) Perceived stress (A Bandura & Bandura, 2006).

Many other studies describe the self-care and self-efficacy of hypertensive adults, but the research on analyzing the correlation between those two variable is rarely done. Therefore, the researchers are interested in conducting a study aims to analyze the correlation between self-care behavior and self-efficacy of hypertensive adults.

METHODS

A descriptive correlation was used in this study. The total respondents were 120 hypertensive adults. The inclusion criteria: 1) clinically diagnosed primary hypertension at least for three months, 2) middle age adult \geq 40 years old, 3) regularly check-up in primary health facility in the area where this study conducted, and 4) willing to be respondent in the study. Moreover, the exclusion criteria of this study were: 1) have a hearing problem or any cognitive problem, 2) have self-care deficit, 3) not at the house when the data is collected.

Data collection in this study used two types of questionnaire as a research instrument. The questionnaire about the self-care behavior of hypertensive adults was adapted and modified from Morisky

Medication Adherence questionnaire (Morisky et al., 2009) and Hypertension Self-Care Activity Level Effect (HSCALE) questionnaire (Warren-findlow et al., 2013). The researcher has got a permission to use and modify the questionnaire. The modified self-care behavior questionnaire consists of 22 statements related medication adherence (6 statements), healthy dietary (10 statements) and physical activities (6 statements).

The questionnaire about the self-efficacy is adopted and modified from a questionnaire "Self-Efficacy Judgement of Filipino Patient with End-Stage Chronic Disease" created by Dela-Rosa (2010) in his study. His approval was sought for some modification. This modification was done by the researcher especially for replacing the word hypertension instead of chronic disease or illness and removing subcategories Exercise Regularly because it is already included in another questionnaire in this research study. The self-efficacy questionnaire contained of 28 statements related perceived self-belief (7 statements), vicarious experience (6 statements), social persuasion (5 statements) and perceived stress (10 statements).

Both of these questionnaire has validated by three experts professor in nursing area. A dry run for the questionnaire was conducted and answered by ten hypertensive adults who not include in this study. The self-care behavior questionnaire was found a reliability coefficient at 0.868 and the self-efficacy questionnaire was found with a reliability coefficient at 0.70.

Data gathering procedure started when the researcher got the permission letter from person in charge on research area where this study conducted. Then the researcher visited the respondent from house to house. Prospective respondents who met the criteria are given informed consent. The researcher described the purpose of the study, the role of the respondents, and also the other ethical considerations. The ethical considerations were the respondent's voluntary participation, explanation about the risk and benefit of the

study, the right to refuse or withdraw, guarantee of confidentiality of the information provided and the consent of the respondent. The respondents gave their consent right after they agreed to be included in this study. The next step was giving the self-efficacy and self-care behavior to the respondents to be answered by them. In order to test the significant correlation between self-efficacy and self-care behavior assessment of hypertensive adult respondents, the pearson-r test was utilized with 0.05 level of

significance. The researcher was not undergo an ethical clearance procedure because this research already approved by the head of public health facility and person in charge on research area where this study conducted. Moreover they stated that the ethical clearance letter was not needed for this type of research.

This study was conducted through an ethical test from the education ethics commission in where the study was conducted. The results of the ethics prove that there is no need to oppose ethics that are violated.

RESULTS

Tabel 1. The Characteristics of the Hypertensive Adult Respondents (n= 120)

Variables	Frequency	Percentage (%)
Sex		
Male	28	23.3
Female	92	76.7
Age		
≥ 40 – 49 years old	16	13.3
50 – 59 years old	35	29.2
≥ 60 years old	69	57.5
Education		
Junior High School	39	32.5
Senior High School	71	59.2
Diploma/ Bachelor	10	8.3

The characteristics of the hypertensive adult respondents of this study were assessed using three categories: sex, age and education. In this study mostly respondents

were female (76.7%), more than or equal with 60 years old (57.5%) and have graduated from senior high school (59.2).

Table 2. Self-Assessment of Self-Care Behavior and Self-Efficacy of the Hypertensive Adult Respondents

	In terms of	Overall Mean	Extended Meaning	Computed t	p Value	r
Self-Care Behaviors	Medication Adherence	3.93	Good	4.705	1.96	0.397
	Healthy Dietary	3.63	Good			
	Physical Activities	3.52	Good			
Self-Efficacy	Perceived Self-Belief	4.05	Good			
	Vicarious Experiences	3.84	Good			
	Social Persuasion	3.77	Good			
	Perceived Stress	3.81	Good			

Significant level < 0.05

The hypertensive adult respondents assessment on their self-care behavior in terms of medication adherence as “good” with an overall mean score of 3.93. The healthy diet as “good” with an overall mean score of 3.63. Physical activity as “good” with an overall mean score of 3.52. The hypertensive adult respondents assessment on their self-efficacy in terms of perceived self-belief as “good” with an overall mean score of 4.05. Vicarious experiences as “good” with an overall mean score of 3.84. Social Persuasion as “good” with an overall mean score of 3.77. Perceived Stress as “good” with an overall mean score of 3.81. All indicator both of self-care behavior and self-efficacy were good.

The tabular value was 1.96 and lower than T-value of 4.705 and so the null hypothesis was rejected. With a computed r value of 0.397, the data shows that there was low positive correlation between self-care behavior and self-efficacy of hypertensive adult respondents.

DISCUSSIONS

The data from the table 1 shows that mostly respondents (76.7%) of this study are female. Wahyuni & Eksanoto (2013) conducted a study using hypertensive patients as their respondents also got similar findings, most of their respondents are female (62.80%). Moreover, their study also found out that there was a significant relationship between sex and hypertension. According to Lewis et al., (2014) before age 45, hypertension is most common in men than in women. But after age 64 hypertension is more common in women than in men. Part of the rise of blood pressure in women is attributed to menopause-related factors such as estrogen withdrawal, over production of pituitary hormones, and weight gain. According to Grossman & Porth (2014), aging is natural process of human life. Because of aging process, elderly will experience both physical and psychological changes. The change in physical function of the body may be the easiest thing to be indicated, particularly

change in the cardiovascular system. Decreasing in the myocardic contractility result in decreasing cardiac output and increasing blood pressure leading to hypertension. This explanation support the finding of this study that most respondent are in age ≥ 60 . Furthermore, in term of education most respondent are graduated from senior high school (59.2%). Tedesco et al., (2001) explain that hypertension and its risk factors are relatively unknown by people with low level of education. Symptomless patients, especially the uneducated, are often unwilling to change their lifestyle, take medication or periodically reach a medical centre to forestall some far-off, poorly perceived danger. Education may influence health in several ways, such as different access to, use of, and nature of medical care. Skills that accompany higher educational achievement include positive attitudes about health, access to health care services, membership in peer groups that promote positive health behaviour, and higher self-esteem and self-efficacy.

The findings of self-care behaviors hypertensive adult respondents in all terms were good. Adult with hypertensive adherence was taking medication with recommended number. They were afraid about the complication that might happend if they are not taking properly. Most of them believed that doctor had given the right number of medications according to their health condition. But when they feel they have a better health condition or controlled blood pressure, then they try not to take it anymore and hope that would be the start point to stop to consume blood pressure medication. In this current study, the awareness of hypertensive adults for avoiding add salt to their food in the table was a good starting point toward greater improvement. On the other hand, hypertensive adults seem to have difficulty avoiding sweet food. It could be affected by the culture of people who lives in Yogyakarta. Most of the people like to consume sweet food rather than other tasty food. Motlagh et al., (2016) conducted a study to assess the attempts at

eating a healthy (low-fat and low-salt) diet, avoiding salt while cooking and eating, and avoiding foods high in salt content along with eating the recommended number of servings of fruits and vegetables. The result of the study shown that only 12% avoided salt both while cooking and eating. The consumption of foods containing high fat and salt, along with the insufficient consumption of fruits and vegetables are influential factors that lead to high blood pressure and ineffective management. This study also pointed out a need for guidelines to be set by health service providers to encourage people to improve their diets. Most hypertensive adults choose walking as their regular physical activity because they did not need to spend money on it. While walking they also can consume clean air, especially in the morning and also enjoy the beautiful view around them. It could be a way of reducing their stress related to their health condition. Some hypertensive adults mentioned they never forget to do exercise, so there is no need to ask family members to remind them. Some of them also join the sports club to more serious about doing exercise regularly. Exercise is a cornerstone of prevention, treatment, and control of blood pressure. Regular physical activity (e.g. brisk walking) at least 30 minutes/day, 3 to 4 times a week, could be reducing systolic blood pressure withing the range 4-9 mmHg. In addition, some studies have reported a 35% reduction in the risk of developing hypertension among individuals who engage in regular physical activity compared to sedentary people (Ghezelbash & Ghorbani, 2012).

Similar to the self-care behavior, the self-efficacy of hypertensive adult respondents in all terms is also good. The most effective way of creating a strong sense of efficacy is through mastery experiences. Successes build a robust belief in one's efficacy. Failures undermine it, especially if failures occur before a sense of efficacy is firmly established (Bandura, 1994). The overall mean score shows that hypertensive adults in a public health care facility in Indonesia have well

perceived self-belief. They believed their ability to maintain their health condition in general and that their hypertension will not give some on their daily activities and job. A study conducted by Flynn et al., (2013), the result concluded the discussion with doctors and other health care team members could motivate hypertensive adults to be more active in joining with activity to normalize blood pressure. Many information can be delivered through community resources like reading articles, books, and pamphlets. Self-efficacy is a component of implementing lifestyle changes that can promote improvement in chronic disease, including hypertension. People with high self-efficacy believe they can make specific changes to encourage an improvement in their health. In contrast, those with low self-efficacy have a low belief they can make changes in their health behaviors (Albert Bandura, 2004). In other words, according to Raymond et al., (2011) argued that self-efficacy proposes that a person's belief or confidence in the ability to undertake a task is a precursor for initiating behavioral change, in this study through medication adherence, healthy dietary and physical activity. The result of a study conducted by Hu et al., (2014) shown that self-efficacy was positively associated with performing self behavior, especially physical activity.

The data analysis from table 2 shows that there was low positive correlation between selfcare behavior and self-efficacy of hypertensive adults, which means when there is increased self-efficacy, the self care behavior of hypertensive adults will be improved. Those who have high self-efficacy also have high motivation to take their medication and fall into daily life style change to maintain their health condition and continue to the behavior changes. In line with this current study, Yang et al., (2013) also noted the self-efficacy as a significant factor that can affect self-care behavior. They stressed the need for interventions that focus on improving an individual's self-efficacy to enhance hypertension self-care. Khosravizade

et al., (2015) suggested using self-efficacy based education to promote self-care behavior for hypertensive women. The result of their study showed that this method positively influence self-care behaviors. Since hypertension is not treatable and needs to be controlled, the hypertensive adults should look after themselves throughout their lives. They may be tired over time and shrug off self-care behaviour. The increasing self-efficacy in confronting the challenges and adopting self-care behaviour will help them.

CONCLUSIONS

The hypertensive adult respondents assessment of their self-care behavior in terms of medication adherence, healthy dietary and physical activity is good. The Hypertensive adult patient respondent's assessment of their self-efficacy in terms of perceived self-belief, vicarious experiences, social persuasion and perceived stress is good. There is a significant relationship between self-efficacy and hypertension self-care behavior of adults.

Based from the findings of the study, the researcher suggest that nursing service providers should establish a health program related with hypertension regularly every one month especially for increase the self-efficacy of the hypertensive adults, such as sharing from an expert about how to maintain health condition and if any share personal experience related hypertension among people with hypertension.

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