Self-Efficacy in Patients with Hypertension

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ABSTRACT

Hypertension is a chronic disease and a serious health problem in various countries that require selfcare management. Dealing with hypertensive patients requires compliance with their self-care to improve health status. Research aimed to determine the relationship of self-efficacy and blood pressure in patients with hypertension at Makassar Regional General Hospital. It used cross sectional study design. The technique of determining the sample by using a purposivel sampling technique with a sample size of 53 people. The relationship test was carried out using Chi-square test with significance level α <0.05. The results of this study showed that there were 17 patients with good self-efficacy, of which 10 (58.8%) pre-hypertension and 7 (41.2%) had high blood pressure. Whereas there were 36 patients whose self-efficacy was lacking, of which 6 (16.7%) had pre-hypertension and 30 (83.3%) had high blood pressure. The results showed that there was a relationship between self-efficacy and blood pressure. In patients with hypertension at Makassar Regional General Hospital with a value of p=0.005. The conclusion in this study is that there is relationship between self-efficacy and blood pressure in patients with hypertension at Makassar Regional General Hospital. For this reason, it is hoped that hypertension sufferers will be more positive thinking so that they are able to think that all diseases are not a burden but an encouragement to believe in themselves so that they can undergo good treatment.

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INTRODUCTION

Hypertension is a chronic disease and serious health problem in many countries. Nearly one billion adults worldwide suffer from hypertension (Osamor & Owumi, 2011). Every year there are 8 million of the adult population worldwide aged 40-49 years suffering from hypertension (Bhandari, dkk., 2012)In the United States, the prevalence of hypertension in adults aged 18 years and over reached 29.1% in 2011-2012 ((Nwankwo, dkk., 2013)

Hypertension is a cause of cardiovascular problems in both developed and developing countries. Cardiovascular disease is a disease that causes death in the world every year. According to Riskesdas 2013 data, most people with hypertension are not aware that they suffer from hypertension or receive hypertension treatment. The prevalence of hypertension in Indonesia is 25.8%. However, from this data, there are still 2/3 who are not diagnosed with hypertension and only 1/3 are diagnosed (Kemenkes RI, 2018). WHO 2015 data shows that around 1.13 billion people in the world suffer from hypertension. The number of people with hypertension in the world continues to increase every year, it is estimated that in 2025 there will be 1.5 billion people affected by hypertension. It is also estimated that every year 9.4 million people die from hypertension and complications (Osamor&Owumi, 2011).

According to data from the health profile of the city of Makassar, the number of hypertension sufferers in South Sulawesi Province to date is 71,032. souls scattered in various districts and cities in the province of South Sulawesi. Data from the Makassar City Health Office also states that the number of cases of hypertension in the last three years, starting in 2010, was 13,802 patients, then in 2011 the number of hypertension cases increased to 25,332, but in 2012 it decreased to 12,298 cases (Irwansayah, 2015).

Hypertension is a chronic disease that requires self-care management. Dealing with hypertensive patients requires adherence to their self-care to improve their health status. Hypertension self-care includes a low salt diet, reducing alcohol consumption, not smoking, exercising or physical exercise, and taking hypertension drugs. One component that affects self-care for hypertensive patients is self-efficacy. Hypertension sufferers who have good self-efficacy can produce benefits in handling hypertension, for example...
adherence to taking anti-hypertensive drugs (Findlow, dkk., 2012).

From a theoretical perspective, it is assessed that self-efficacy is associated with chronic self-management disease, thus indicating that the disease context is important to measure. One of the causes of the lack of adequate care for hypertensive sufferers is the individual's behavior. In a study conducted by Findlow, dkk., (2012) it was shown that encouraging patients to have high self-efficacy in their ability to treat their high blood pressure can produce several benefits in terms of their self-care adherence including adherence to taking anti-hypertensive drugs. (Seymour & Huber, 2012).

According to Bandura, self-efficacy is one of the most important psychological factors that impact adherence to treatment (Bandura, 1982 dalam Saffari, dkk., 2015). Another theory states that self-efficacy is a person's perceptual ability to complete goals, or challenges Bandura, 1982 dalam Saffari, dkk., (2015). Self-efficacy has been considered the most prominent predictor of changes in health behavior such as adherence to treatment in patients with chronic diseases (Ogedegbege, 2003 in Saffari, dkk., 2015).

Based on research conducted by Manik (2011) regarding the analysis of factors that affect self-management behavior, it was found that one of the variables studied was self-efficacy. This study measures self-efficacy by using a self-efficacy scale instrument for chronic disease in general. This instrument does not use a self-efficacy scale instrument specifically for hypertension sufferers.

The results of Irwansyah's (2015) study found that there were more elderly people who had less good self-efficacy than those who had good self-efficacy in the work area of Puskesmas Jumandang Baru. It is recommended that the health service team pay attention to the self-efficacy of elderly people with hypertension and make the initial data a consideration to formulate appropriate interventions/actions for elderly people with hypertension to increase their self-efficacy.

Based on the above background, the research is interested in examining the effect of self-efficacy on blood pressure in hypertensive patients at the Makassar City Regional General Hospital.

METHOD
Research participants

The population in this study were all hypertension patients who were treated in the inpatient room of Makassar City Hospital. The sample in this study were all hypertension patients in the inpatient room of Makassar City Hospital. To determine the population is to have certain characteristics up to the desired number with inclusion criteria, willing to be a sample, adult patients aged 40 years, the patient is conscious and able to communicate, does not differentiate sex. This research was conducted in the Inpatient Room of the Makassar City Hospital in December 2018 - January 2019, with a total sample of 53 patients.

Research procedure

The design in this study was a quantitative study with an analytic approach with a cross sectional study design. This questionnaire is then given to patients with hypertension by asking the patient to read and then answer according to the perceived situation. For patients who do not have the ability to read, the questionnaire will be read by the researcher in language that is easy to understand.

Instrument

The instrument used in this study was a questionnaire consisting of 5 questionnaires, namely a questionnaire on demographic characteristics of respondents and a questionnaire on self-efficacy. The self-efficacy questionnaire was adopted from The Diabetes Management Self-Efficacy Scale (DMSES) consisting of 20 questions, but in this study only 15 questions: Analysis data with Chi Square test.

Data analysis

Data analysis with Chi Square test

RESULTS AND DISCUSSION

Table 1
Respondents Frequency Distribution (N=53)

<table>
<thead>
<tr>
<th>Characteristics of Respondents</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36-45 years</td>
<td>10</td>
<td>18.9</td>
</tr>
<tr>
<td>46-55 years</td>
<td>18</td>
<td>34.0</td>
</tr>
<tr>
<td>56-65 years</td>
<td>18</td>
<td>34.0</td>
</tr>
<tr>
<td>&gt; 65 years</td>
<td>7</td>
<td>13.1</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>30</td>
<td>56.6</td>
</tr>
<tr>
<td>Women</td>
<td>23</td>
<td>43.4</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>13</td>
<td>24.5</td>
</tr>
<tr>
<td>Junior High</td>
<td>12</td>
<td>22.6</td>
</tr>
<tr>
<td>High school</td>
<td>19</td>
<td>35.8</td>
</tr>
<tr>
<td>S1</td>
<td>9</td>
<td>17.1</td>
</tr>
</tbody>
</table>

Based on table 1, it shows that of the 53 patients, the most age characteristics of the patients were aged 46-55 years and 46-55 years old (34.0%) and the least vulnerable aged > 65 years were 7 patients (13.1%). Most patient gender characteristics were males as many as 30 patients (56.6%). The educational characteristics of the most patients were SMA as many as 19 patients (35.8%) and the lowest was S1 as many as 7 patients (17.1%).

Table 2
Frequency Distribution Based on Self-Efficacy (N=53)

<table>
<thead>
<tr>
<th>Self Efficacy</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>17</td>
<td>32.1</td>
</tr>
<tr>
<td>Less</td>
<td>36</td>
<td>67.9</td>
</tr>
</tbody>
</table>

Based on table 2 shows that out of 53 patients, 17 patients (32.1%) had good self-efficacy and 36 patients (67.9%) had less self-efficacy.

Based on the results of research that has been carried out in the Inpatient Room of the Makassar City Hospital, 17 patients (32.1%) had good self-efficacy. This is because sufferers are able to check their own blood pressure, are able to make eating adjustments when sick, are able to adjust their meal plans when exercising, and are able to follow...
meal plan adjustments when I am stressed (depressed) or excited. In this study also found 36 patients (67.9%) who lacked self-efficacy. This is because sufferers are less able to correct their own blood pressure when the blood pressure results are too low, are less able to choose the right food, are less able to maintain an appropriate weight, are less able to control the doctor and are less able to follow a healthy diet when attending a party.

The results of Okatirani’s research, ddk., (2017) show that some respondents have high self-efficacy for elderly hypertension. The high level of self efficacy in individuals cannot be separated from the factors that influence it. The level of Self Efficacy varies from person to person. This is because there are several factors that influence the perception of abilities in individuals. The factors that influence self-efficacy are age, gender, education and experience.

Efficacy is self-assessment, whether it can do good or bad actions, right or wrong, can or cannot do what is required. This efficacy is different from aspirations (ideals), because ideals describe something that is ideal that should be (can be achieved), while efficacy describes the self-assessment of a surgeon, must have high efficacy expectations in accordance with professional standards (Priyoto, 2014).

According to researchers, most of the patients had less self-efficacy; this was influenced by the age factor, most of whom had entered their elderly age. Self-efficacy in the elderly is related to acceptance and rejection of the abilities they have along with the physical deterioration they experience. In addition, the individual’s experience with the treatment of the disease is related to the length of time the individual experiences the disease. Therefore, self-efficacy is very important in patients with hypertension because with good self-efficacy in patients it will influence patients to behave and commit, so that with self-efficacy the goals of the desired behavior change can be achieved. Individuals with good self-efficacy have high hopes for the success of achieving goals, while individuals with less self-efficacy have doubts in achieving their goals.

### Table 3
**Frequency Distribution Based on Blood Pressure (N=53)**

<table>
<thead>
<tr>
<th>Blood pressure</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>16</td>
<td>30.2</td>
</tr>
<tr>
<td>High</td>
<td>37</td>
<td>69.8</td>
</tr>
</tbody>
</table>

Based on the results of research that has been carried out in the Inpatient Room of the Makassar City Hospital, 16 patients (32.1%) had normal blood pressure and 37 patients (69.8%) had high blood pressure. This is influenced by the age factor which greatly influences hypertension because with increasing age, the higher the risk of hypertension. Gender is also very closely related to the occurrence of hypertension, where in youth and middle age hypertension is higher in men than in women, which is higher after the age of 55 years, when a woman experiences menopause (Triyanto, 2014).

The results of research conducted by Wahyudi (2014) suggest that the minimum systolic pressure is 100 mmHg, while the minimum diastolic pressure is 70 mmHg. Then for the average systolic pressure is 134.91 mmHg, while the average diastolic pressure is 89.81 mmHg. Then for the maximum systolic pressure is 180 mmHg, and the maximum diastolic pressure is 140 mmHg.

High blood pressure or hypertension is a medical condition when a person has an increase in blood pressure above normal or chronic (for a long time). In general, a person is said to have hypertension if his systolic / diastolic blood pressure exceeds 140/90 mmHg (normally 120/80 mmHg) (Sudarmoko, 2015).

According to the investigators, most of the patients had high systolic and diastolic blood pressures (> 140/90 mmHg). It is recognized that there are more people with hypertension than men, but women are more resistant than men without damage to the heart and blood vessels. Men are more likely to suffer from hypertension than women. In men, hypertension is mostly caused by work, such as feeling less comfortable with work. Until the age of 55 years, men are at higher risk of developing hypertension than women.

### Table 4
**The Effect of Self-Efficacy on Blood Pressure in Patients with Hypertension (N=53)**

<table>
<thead>
<tr>
<th>Self Efficacy</th>
<th>Blood pressure</th>
<th>Total</th>
<th>( \rho )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>High</td>
<td>Tinggi</td>
</tr>
<tr>
<td>Good</td>
<td>10</td>
<td>58.8</td>
<td>7</td>
</tr>
<tr>
<td>Less</td>
<td>6</td>
<td>16.7</td>
<td>30</td>
</tr>
</tbody>
</table>

Based on table 4, it shows that out of 53 patients, 16 patients (32.1%) had normal blood pressure and 37 patients (69.8%) had high blood pressure.

Based on the results of research that has been carried out in the Inpatient Room of the Makassar City Hospital, it shows that there is an effect of self-efficacy on blood pressure in patients with hypertension at the Makassar City Regional General Hospital, because patients who have self-efficacy are more or less likely to have high systolic and diastolic blood pressure (> 140/90 mmHg).

The results of this study are in line with research conducted by Lee (2010) which states that there is a strong relationship between high Self Efficacy and a decrease in blood pressure in hypertensive patients compared to patients with low Self Efficacy.

The research results of Lestari & Smaini (2018) suggest that there is a very significant positive effect between self-management and blood pressure (systolic and diastolic). The higher the self-management, the lower the blood pressure of the elderly with hypertension, conversely, the lower the self-management, the higher the blood pressure of the elderly with hypertension.

According to Bandura, self-efficacy refers to feelings of adequacy, efficiency, and competence while living life. People with high self-efficacy believe they can deal with events and situations effectively. Because they hope to successfully overcome obstacles, they strive to complete assignments and often display high levels of performance. These people are more confident in their own abilities than people with low self-efficacy, and they have little doubts about themselves. They view adversity as a challenge rather
than a threat and actively seek out new situations. High self-efficacy reduces fear of failure, increases aspirations, and improves problem-solving and analytical thinking skills (Schultz & Schultz, 2016).

Self-efficacy is an important factor in self-care by building sufferers' confidence in their ability (self-efficacy) in influencing the results they want to achieve. It seems like a positive path that can encourage someone to do successful and successful self-care in patients with one other chronic disease. (Hendiatro&Hamidah, 2014). Not only self-efficacy can affect blood pressure in hypertensive sufferers, but it can also be influenced by several factors that play a role in hypertension cases according to Situmorang (2015), namely heredity, obesity, stress, diet and smoking.

According to researchers, there is an effect of self-efficacy on blood pressure in people with hypertension. So the better the self-efficacy, the lower the blood pressure in patients with hypertension, and vice versa, the less self-efficacy of the patient, the higher the blood pressure of hypertensive sufferers. Self-efficacy is very important in reducing the patient’s blood pressure, because with the good self-efficacy possessed by the patient, it will form a positive behavior so that it can motivate the patient to believe in himself, so as to reduce the risk of increasing blood pressure in hypertensive sufferers.

**Limitation of The Study**

Research conducted by researchers has limitations in its implementation, so that it may affect the results of this study. The limitations passed by the researchers were communication limitations, because most of the patients used regional languages so that the researchers found it difficult to communicate intensively with patients.

**CONCLUSIONS AND RECOMMENDATION**

**Conclusions**

Based on the results of research on the effect of self-efficacy on blood pressure in hypertensive patients at the Makassar City Regional General Hospital, the following conclusions namely most of the hypertension sufferers at the Makassar City Regional General Hospital had less self-efficacy of 67.9%, most of the hypertensive patients at the Makassar City Regional General Hospital had high blood pressure of 69.8%, and there is a relationship between self-efficacy with blood pressure in hypertensive patients at the Makassar City Regional General Hospital with p value = 0.005.

**Recommendation**

It is hoped that hypertension sufferers will think more positively so that they are able to think that all diseases are not a burden but an encouragement to believe in themselves so that they can undergo good treatment. For health worker hoped that this research can be used as a basis for developing nursing interventions, especially in establishing self-efficacy to reduce blood pressure in patients with hypertension.

**Conflict of Interest Statement**

There is no conflict of interest in this research.

**REFERENCES**


