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Research article

Correlation of Health Literacy With Self Care Management In Hypertension Patients in Level II Hospital Dustira Cimahi

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ABSTRACT

Background: Knowledge and self-care management are needed to control blood prreasure among hypertension population. This study aimed to identify correlation between health literacy and self-care management among patient with hypertension in the Dustira Hospital. Quantitative methods with cross-sectional approach was used in this study.
Methods: Totally 177 patients with hypertension participated in this study by complete a questionnaire. The European health literacy questionnaire (HLS-EU-Q16) was used to assess health literacy and the hypertension self-management behavior questionnaire (HSMBQ) to measure self-care management. Pearson product moment was used to analyse the correlation of two variables.
Results: The results showed that the average score of self care management = 69.80 and health lietaracy = 12.33. Health literacy was statisticaly significant correlate with self care management (p=0.000). The direct of correlation was positive, which it means higher the health literacy; it will improve the self-care management. The strength of the correlation is moderate criteria (r = 0.428)
Conclusion: These results could used as data for hospitals to develope training programs for improving health literacy and self care management.

I. Introduction

Hypertension is a major public health problem and the most common cause of death worldwide (Ministry of Health, 2019). Hypertension causes ischemic heart disease (45%) and stroke (51%) which are the main causes of death in the world (WHO, 2018). The prevalence of death due to hypertension in the world is estimated at 10.44 million people every year (Ministry of Health, 2019). Basic Health Research (Riskesdas, 2018) reports the number of hypertension in Indonesia is 63,309,620 people, with a death toll of 427,218.

The Bandung City Health Office reports that hypertension is the main cause of death (Dinkes, 2020). The Bandung City Health Office (Bandung City Health Office, 2020) reported the number of deaths due to hypertension of 111 cases or 12.40%.

Hypertension that is not handled properly will cause the risk of damage to the cardiovascular, brain, and kidneys, causing complications (Ihda 2016). Complications caused by hypertension such as stroke, heart failure, myocardial infarction, and kidney failure will increase the incidence of morbidity and mortality due to hypertension (Yuniar, 2019).

Complications of hypertension can be prevented by controlling or changing risky behavior. Behaviors that are at risk of causing hypertension include smoking, alcohol consumption, lack of physical activity, vegetables, fruit, sugar, and stress (Lubis, 2020). Control and risk of hypertension complications can be done by implementing self care management. (Sihotang et al., 2020). Akhter (2010). Self care management consists of self-integration, self-regulation, interaction with health workers, self-monitoring and adherence to treatment.

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The application of Self Care Management must be supported by appropriate information on health, in this case literacy skills are needed in accessing various information, especially in the field of health (Ishkawa & Yano, 2011). Hypertension control cannot be separated from the ability of individuals to access, understand health information and use health services to be able to make decisions which is known as health literacy. Health literacy also has a big role in efforts to improve one's health. Health literacy is influential in choosing a healthy lifestyle, preventing illness and seeking information about appropriate medical treatment and care (Berkman et al., 2010). health literacy consists of seeking health information, understanding health information,

Research conducted by Soemitro (2014) provides an overview of the literacy rate at the Malang Health Center which has a low literacy rate of 65.35%. The characteristics of a low literacy level are that individuals find it difficult to read drug labels and it is difficult to understand health education information (Shi et al., 2017). Health literacy refers to the ability of hypertensive patients to obtain, process and use health information and medical services (Yin et al., 2010).

Individuals who have reading skills will easily understand any information obtained, therefore health literacy for each individual is very important to know (Sabil, 2018). Low health literacy has a bad effect on blood pressure control (Du et al., 2018).

Based on the results of the preliminary study, data on the number of patients with hypertension in the last three months were 319 people from February to April 2022. Researchers have also conducted interviews with hypertensive patients who visited the outpatient hospital at RS. Level II Dustira Cimahi As for the information obtained, five out of three patients stated that they did not comply with taking medication, did not reduce salt consumption, rarely exercised and did not routinely monitor blood pressure. In addition, patients are also aware that there are information boards, banners and posters in every hallway related to health information but are rarely read.

Based on the description of the background, so that researchers are interested in conducting research on "The Correlation of Health Literacy with Self Care Management in Hypertensive Patients at Dustira Cimahi Hospital Level II".

II. METHODS

Research Location and Design

The research method used in this study is a quantitative method with a descriptive correlation research design. The population in this study were all hypertensive patients (primary data) at Dustira Hospital level II for the period February - March totaling 319 patients. The sample used in this study were hypertensive patients who came to the general polyclinic of the Dustira Level II Hospital. The sampling technique used in this study was nonprobability sampling and the researcher used accidental sampling to collect patient data at the outpatient clinic of the hospital. Level II Dustira. Accidental sampling technique is a sampling technique by chance meeting with researchers who are adjusted to the inclusion criteria (Sugiyono, 2019). Data collection in this study was done by filling out a questionnaire. The instrument used to measure self-care management is the Hypertension Self-management Behavior Questionnaire (HSMBQ). It has an r-count (Corrected Item-Total Correlation) > 0.361 so it is declared valid. Based on the results of the Hypertension Self-management Behavior Questionnaire test results, Cronbach's Alpha value is 0.945, which means that Cronbach's Alpha value is more than 0.6 so that this questionnaire is declared reliable. The validity test was carried out on 30 respondents, there were 8 invalid questions in this questionnaire, namely numbers 2,5,9,11,14,21,32 and 33 which had r-count >0.361. So this study only uses 25 question items. The instrument used to measure Health Literacy is HLS-EU-16Q-Indonesia.

Data Analysis and Presentation

Univariate data analysis used the minimum, maximum, mean and standard deviation for the variables of health literacy, self-care management, age, because it was in the form of an interval, while for gender, occupation, length of suffering from hypertension, education and living with family, the frequency distribution was used, because it was in the form of ordinal and nominal data. Bivariate analysis Researchers used Pearson product moment analysis, which had previously been tested for normality and linearity.

The data was processed computerized using the SPSS program with the Pearson product moment statistical test, with a normal value (α) of 0.05. If the value of $p < (0.05)$ means that the hypothesis is

accepted (there is a relationship between the independent variable and the dependent variable), whereas if the value of p > (0.05) means that the hypothesis is rejected

III. RESULT

Univariate Analysis

This analysis measures the results of each variable in the study, namely the characteristics and variables studied (Table 1).the results of the study showed that the average age of the respondents was 51.28 years with a standard deviation of 27.929, respondents had the last education level of high school (46.3%), female gender (50.8%), other occupations (31.6 %), respondents never smoked (53.7%), respondents live with family (89.8%), respondents have a history of hypertension 1-5 years (66.7%), respondents do not have complications (62.7%). , respondents have marital status already married (76.8%).

Characteristics	Frequency	Percentage (%)
Age	Mean:51,28	SD:27,929
Min:		
Max:		
Education		
Elementary School	14	7.9
Junior High School	23	13.0
Senior High School	82	46.3
College	58	32.8
Gender		
Man	87	49.2
Woman	90	50.8
Work		
Farmer	6	3.4
Private employees	34	19.2
civil servant	24	13.6
House wife	26	14.7
Self-employed	31	17.5
Etc	56	31.6
Smoking history		
never smoked	38	21.5
Still smoking	44	24.9
Never	95	53.7
Live with family		
Not	18	10.2
Yes	159	89.8
Long time suffering from hypertension		
1-5 years	118	66.7
6-10 years	46	26.0
➢ 10 years	13	7.3
Disease complications		
Yes	66	37.3
There isn't any	111	62.7
Marital status		
not married yet	19	10.7
Married	136	76.8
Divorced	3	1.7

Widow widower	17	9.6

a. Health literacy

Table 2 shows the results of the study that the average health literacy of hypertensive patients was 12.33 (SD = 3.278).

Table 2
Average Health Literacy Score of Hypertensive Patients at Tier II Hospital Dustira Cimahi

Variable	Minimum	maximum	mean	Standard deviation
Health literacy	2	16	12.33	3,278

b. Self-care management

Table 3 shows the results of the study that the average self-care management of hypertensive patients was 69.80 (SD 14.032).

Table 3
Average Self Care Management Score in Hypertensive Patients at Dustira Level II Hospital (N=177)

Variable	Minimum	maximum	mean	Standard deviation
Self-care management	26	100	69,80	14,032

Bivariate Analysis

Before conducting the bivariate analysis, the data was tested for normality. The results of the normality test showed that the data met the requirements, where the results showed that the data was normally distributed so that the researchers conducted a correlation test using Pearson's product moment. The correlation between health literacy and self-care management can be seen in table 4.

The results showed that health literacy was significantly correlated with self-care management (p value = 0.000) <0.05, meaning that there was a correlation between health literacy and self-care management in hypertensive patients. The value of r = 0.442 indicates the strength of the correlation is moderate but shows a positive direction, meaning that the higher the health literacy, the higher the self-care management.

Table 4
Health Literacy Correlation with Hypertension Patients

Variable	R	Signification	N
*Health literacy*with self-care management	0.428	0.000	177

IV. DISCUSSION

Self-care management

The results of this study reported that patients with hypertension had moderate self-care management (n=69.80%). Some respondents in this study reached the maximum value, this is because some respondents work as soldiers, doctors, and students so that they have a good understanding of self care management. The results in this study are the same as previous studies that self-care management of people with hypertension shows the moderate category (Tursina, 2022; Puswati, 2021, nabila 2022). The similarities of this research with the three studies are the average age and gender of the respondents. the average respondent in this study is 51 years, this shows that as a person ages, the level of self care management will decrease (Ardhika & Dian, 2020).

In this study, it was also found that the average length of time suffering from hypertension was 1-5 years in previous studies which stated that patients with a history of hypertension >5 years tended to be non-adherent to the treatment they were undergoing because of boredom (Puspita, 2017). The average gender in this study is female. Female hypertensive patients have a good response in dealing with problems,

have the willingness to check and control their health compared to men who tend to be less concerned about their health (Bisnu, 2017).
The average patient in this study lived with his family and was married, so the self-care management of patients in the medium category. This study supports previous research, namely social support also plays an important role in implementing self-care management (Mahfud, 2019). The existence of support from the closest people such as family can motivate and improve the ability of hypertensive patients in implementing self care management (Ardhika & Dian, 2020). Previous research on self care management in patients with hypertension has proven to be effective in lowering blood pressure, lifestyle changes such as physical activity, reducing salt consumption and being obedient to taking hypertension drugs are very effective for lowering blood pressure and preventing complications (Calisane, 2021).

Health Literacy
The results of this study report that patients with hypertension have health literacy in the problematic/interactive category. Some of the respondents in this study reached the maximum score of 16 because some of the respondents worked as soldiers, students and also doctors, so they had good health literacy awareness. The results of this study are the same as previous studies which reported that hypertensive patients have problematic/interactive health literacy (Soemitro, 2014; Sahroni, 2019). In this study, it was found that the last education level of most of the respondents was high school graduates. This research is the same as previous research on health literacy with the last education being high school (Sahroni, 2019; Fatmawati, 2021).
A high level of education tends to have a better level of understanding in receiving, applying information than someone who has a low level of education (Tambuwun et al., 2021). The third equation of this study is that the age of hypertensive patients ranges from 40-60 years, this study is in line with previous research where age and education level have an effect on health literacy (Sorensen et al., 2012).
Someone with an advanced age and low level of education means that the ability to read, understand, analyze and apply information is very lacking so it is very difficult for them to use the information obtained for their health (Sorensen et al., 2012). Health literacy refers to the ability of hypertensive patients to obtain, and process and use health information and medical services (Yin et al., 2010).

Correlation Between Health Literacy and Self Care Management in Hypertensive Patients.
The results showed that health literacy was significantly correlated with self-care management (pvalue=0.000) <0.05, meaning that there was a correlation between health literacy and self-care management in hypertensive patients. The value of r = 0.442 indicates the strength of the correlation is moderate but shows a positive direction, meaning that the higher the health literacy, the higher the self-care management. The positive direction is supported by the presence of several respondents who reached the maximum value. This study is in line with previous research (Mohammadpour et al., 2018). Someone with high health literacy has good knowledge so that it is possible to have good self-care as well (Andrus and Roth, 2002).
In this study, the longest history of hypertension was 1-5 years. Research conducted by Suciana (2020), data shows that patients diagnosed with hypertension in the last 1-5 years, despite having poor health literacy, still carry out self care management well because they have the motivation to recover.
The level of individual literacy greatly affects the individual's ability to read and understand the health information obtained (Shi et al., 2017). Individuals who have reading skills will easily understand any information obtained, therefore health literacy for each individual is very important to know (Sabil, 2018).
Health literacylow levels have a poor effect on blood pressure control (Du et al., 2018). Health literacy is influential in choosing a healthy lifestyle, preventing illness and seeking information about appropriate medical treatment and care (Berkman et al., 2010). The implementation of Self Care Management must also be supported by appropriate information on health, in this case literacy skills are needed in accessing various information, especially in the field of health (Ishkawa & Yano, 2011).

V. CONCLUSION

Based on the results of the research and discussion, the conclusions of the study entitled Correlation of Health Literacy with Self Care Management in Hypertensive Patients at Tier II Hospital Dustira Cimahi are as follows: The results showed that the average respondent with hypertension had self care management (69.80%) in the medium category and the standard deviation was 14.032. The results showed that the average respondent with hypertension had health literacy (12.33%) in the problematic category with a standard deviation (3.278). The results of the study obtained statistical data is the value of r = 0.428, which is a moderate correlation but shows a positive direction, meaning that the higher the health literacy, the higher the self-care management.

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