

#### Article

### The Effect of Health Counseling on Self-Management and Blood Pressure Stability in Hypertension Patients at the Klinik Ronaa Husada

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#### ABSTRACT

Hypertension is still one of the problems that exist in the world of health to this day. General public knows it as hypertension because of the increase in blood pressure exceeding the normal limit. According to 'Riskesdas' data in Southeast Asia in 2018, the number of hypertension patients in Indonesia increased by 34.1% annually. This study uses a correlational analytical design with a cross-sectional approach. Data was collected in July 2024 with a population of 35 respondents and a sample of 33 respondents who met the inclusion and exclusion criteria with purposive sampling techniques. Data processing included coding, editing, and tabulating, then analyzed with SPSS software for the Wilcoxon test with an  $\alpha$  of 0.05. The study results showed that before the counseling was carried out, as many as 13 respondents had poor selfmanagement, while 15 had good self-management after counseling. Meanwhile, the blood pressure results before counseling were 21 respondents with unstable systolic results and 23 respondents with stable diastolics, while after counseling there were 24 respondents with stable systolic results and 33 respondents with stable diastolic. After the Wilcoxon test showed a p-value of 0.003 in self-management, a p-value of 0.001 in systolic blood pressure, and a p-value of 0.002 in diastolic blood pressure, which was smaller than  $\boldsymbol{\alpha}$ (0.05). This shows the influence of health counseling on selfmanagement and blood pressure stability in hypertensive patients. This research shows that health counseling is essential to realize good self-management in hypertensive patients so that good blood pressure stability can be achieved.

#### I. INTRODUCTION

Hypertension is still one of the problems in the world of health today. The general public knows hypertension as "high blood pressure" because this disease indicates an increase in high blood pressure beyond normal limits (Marbun & Hutapea, 2022).

Hypertension is one of the important factors as a trigger for non-communicable diseases

(Non Communicable Illness) such as heart disease, where two-thirds are in developing countries that experience the cause of death worldwide die every year and it is estimated that around 1 billion people in the world suffer from hypertension. (Agus et al., 2021 in Syatriani, Silwanah, & Fadilah, 2022). According to Riskesdas data in Southeast Asia in 2018, the number of hypertension sufferers in Indonesia reached 36, an increase of 34.1% from year to year. Compared to the 2013 Riskesdas data, this incidence has increased quite high. Southeast Asia, including Indonesia, reported that 49.7% of deaths were caused by hypertension (Sartika et al., 2020 in Alkhusari, Anggita, & Satrio, 2023).

Based on the results of a preliminary study conducted at the Klinik Ronaa Husada, it can be seen that out of 10 (100%) respondents who had hypertension, 5 (50%) respondents had poor self-management and blood pressure stability, while 2 (20%) respondents had sufficient self-management and blood pressure stability. Meanwhile, 3 (30%) other respondents had good selfmanagement and blood pressure stability.

The most common symptom complained of by hypertension patients is a headache in the back of the head. Hypertension will cause pain caused by changes in the structure of blood vessels that can block blood vessels and vasoconstriction and impaired circulation to the brain, causing blood vessel obstruction and pain (Murtiono & Ngurah, 2020).

Health education about hypertension is needed as an effort to prevent hypertension. In addition to preventing hypertension, health education also provides material on the definition, symptoms, risk factors, and prevention of hypertension (Astreansyah, Yustandi, Mayandari, & Suwarni, 2021).

Education is one of the effective efforts to increase knowledge and information to prevent complications. Health education is one of the effective ways to obtain health knowledge information before and after education. Leaflets are visual media that can be used to attract public attention to listen to the material presented (Andriyani et al., 2021 in Marbun & Hutapea, 2022).

Based on the description above, the author is interested in conducting a study entitled "The Effect of Health Education on Self-Management and Blood Pressure Stability in Hypertension Patients".

#### **II. METHODS**

Research design is a research plan that is arranged in such a way that researchers can obtain answers to research questions. Research design refers to the type or kind of research chosen to achieve research objectives, and acts as a tool and guideline to achieve these objectives (Nursalam, 2013). The study uses a correlational analytical method, namely to determine how far the contribution of certain risk factors to the occurrence of a particular event (effect). While the approach uses cross-sectional which is used to study the dynamics of the correlation between risk factors and effects at the same time (Notoatmodjo, 2010).

#### III. RESULT

- 1. Research Result
- 1) Research Location Overview

Ronaa Husada Inpatient Clinic is a privately primary clinic located owned in Sarikemuning Village, Senduro District, Lumajang Regency. Ronaa Husada Inpatient Clinic located is in the administrative area of Lumajang Regency which is located between 8°07'02.6"S The location of Ronaa 113°07'35.1"E. Husada Inpatient Clinic is precisely on Jalan Raya Senduro - Sarikemuning - Senduro -Lumajang, and has a building area of 360 m2 and a land area of 4.000 m2. The boundaries of the Ronaa Husada Inpatient Clinic land are as follows:

- a. North side borders Senduro Highway
- b. East side borders village road
- c. South side borders rice field

d. West side borders resident's house (B. Ruki's house)

- 2. Data analysis
- 1) Univariate Analysis
- A. General Data

a. Respondent Characteristics Based on Age at Klinik Ronaa Husada July 2024

Tabel 1. Respondent Characteristics
Based on Age at Klinik Ronaa Husada
Luly 2024

July 2024						
NumberAgeFreqPercentage(%)						
1	40 - 50 y.o	8	24.2			
2	51 - 60 y.o	8	24.2			
3	> 60 y.o	17	51.5			
Amount 33 100.0						

Based on the table above, it shows that more than half of the respondents are aged > 60 years, namely 17 respondents with a percentage of 51.5%.  Respondent Characteristics Based on Occupation at Klinik Ronaa Husada July 2024

#### Tabel 2. Respondent Characteristics Based on Occupation at Klinik Ronaa Husada July 2024

Number	Occupation	Freq	Percentage(%)		
1	Not woeking	0	0		
2	Farmer	16	48.5		
3	Private employee	0	0		
4	Civil servant	0	0		
5	Housewife	9	27.3		
6	Self- employed	8	24.2		
	Amount	33	100.0		

Based on the respondent occupation table above, it can be seen that almost half of the respondents work as farmers with a total of 16 respondents with a percentage of 48.5%. c. Respondent Characteristics Based on Education at Klinik Ronaa Husada July 2024

Tabel 3. Respondent Characteristics Based on Education at Klinik Ronaa Husada July 2024

	Traduda d	ary 202	•
Num ber	Education	Freq	Percentag e(%)
1	Not School	6	18.0
2	Elementary school	22	66.7
3	JHS	5	15.2
4	SHS	0	0
5	Akademic/Coll ege	0	0
Amou	nt	33	100.0

From the data in the respondent education table above, it shows that the majority of respondents have an elementary school education, namely 22 respondents with a percentage of 66.7%.

d. Respondent Characteristics Based on Gender at Klinik Ronaa Husada 2024

## Tabel 4. Respondent CharacteristicsBased on Gender in Ronaa Husada July2024

2024					
Number	Gender	Freq	Percentage(%)		
1	Male	9	27.3		
2	Female	24	72.7		
Amount 33 100.0					

From the table above, it can be seen that the majority of respondents were female with a total of 24 respondents with a percentage of 72.7%.

B. Special Data

a. Self-Management of Hypertension Patients Before Being Given Health Counseling at the Klinik Ronaa Husada July 2024

#### Tabel 5. Self-Management of Hypertension Patients Before Being Given Health Counseling at the Klinik Ronaa Husada July 2024

Skor Freq Percentage(%						
Value						
Good	9	27.3				
Enough	11	33.3				
Less	13	39.4				
Amount	33	100.0				
	Skor Value Good Enough Less	SkorFreqValue9Good9Enough11Less13				

Based on the data in the table of selfmanagement of hypertension patients above, it can be seen that the majority of respondents have poor hypertension selfmanagement with a total of 13 respondents with a percentage of 39.4%.

b. Self-Management in Hypertension Patients After Being Given Counseling at the Klinik Ronaa Husada July 2024

#### Tabel 6 Self-Management of Hypertension Patients After Being Given Health Counseling at the Klinik Ronaa Husada July 2024

Number	Skor Value	Freq	Percentage(%)		
1	good	15	45.5		
2	Enough	13	39.4		
3	Less	5	15.2		
	Amount	33	100.0		

Based on the data from the table of selfmanagement of hypertension patients after being given the counseling above, it can be seen that the majority of respondents have good hypertension self-management, namely 15 respondents with a percentage of 45.5%. c. Blood Pressure of Hypertension Patients Before Being Given Health Counseling at Klinik Ronaa Husada July 2024

Tabel 7 Systolic Blood Pressure of Hypertensive Patients Before Being Given Health Counseling at the Klinik

Ronaa Husada July 2024					
Number	Skor	Freq Percentage(%			
	Value	-			
1	Stable	12	36.4		
	systolic				
2	Not stable	21	63.6		
	systolic				
	Amount	33	100.0		

Based on the table data above, it can be seen that most respondents had unstable systolic blood pressure results with a total of 21 respondents with a percentage of 63.6%.

Tabel 8 Diastolic Blood Pressure of Hypertensive Patients Before Being Given Health Counseling at the Klinik Ronaa Husada July 2024

	Ronaa Hus	sada J	uiy 2024
Number	Skor	Freq	Percentage(%)
	Value		
1	stable	23	69.7
	Diastolic		
2	not	10	30.3
	Stable		
	Diastolic		
	Amount	33	100.0

Based on the table data above, it can be seen that the majority of respondents had stable diastolic blood pressure results with a total of 23 respondents with a percentage of 69.7%.

d. Blood Pressure of Hypertension Patients After Being Given Health Counseling at Klinik Ronaa Husada July 2024

Tabel 9 Systolic Blood Pressure of Hypertension Patients After Being Given Health Counseling at the Klinik Ronaa Husada July 2024

Ronaa Husada July 2024					
Number	Skor	Freq	Percentage(%)		
	Value				
1	Stable	24	72.7		
	systolic				
2	Not stable	9	27.3		
	systolic				
	Amount	33	100.0		

Based on the table data above, it is known that the majority of respondents have

stable systolic blood pressure results, namely 24 respondents with a percentage of 72.7%.

#### Tabel 10 Diastolic Blood Pressure of Hypertension Patients After Being Given Health Counseling at Klinik Ronaa Husada July 2024

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Number	Skor	Freq	Percentage(%)
	Value		
1	Diastolic	33	100.0
	stable		
2	Diastolic nc	0	0
	Stable		
	Amount	33	100.0

Based on the table data above, it is known that all respondents had stable diastolic blood pressure results, namely 33 respondents with a percentage of 100%.

#### 2) Bivariate Analysis

1. The Effect of Health Counseling on Self-Management in Hypertension Patients at the Klinik Ronaa Husada July 2024

#### Tabel 11 The Effect of Health Counseling on Self-Management in Hypertension Patients at the Klinik Ronaa Husada July

2024				
Self-	Self-N	lanagemen	t After	Amount
Management	Being	Given Cour	nseling	
Before Being	Good	Enough	Less	
Given				
Counseling				
Good	8	1	0	9
Enough	4	7	0	11
Less	3	5	5	13
Amount	15	13	5	33
Uji <i>Wilcoxon=0.003</i>				

Based on the table above, it can be seen that before being given health counseling, 13 respondents had poor selfmanagement. After health counseling, it was found that 15 respondents had good self-management, 13 respondents had adequate self-management, and 5 respondents had poor self-management.

#### Tabel 2 Statistical Test Results of the Effect of Health Counseling on Self-Management in Hypertension Patients at the Klinik Ronaa Husada July 2024

Ranks				
		Ν	Mean Rank	Sum of Ranks
Postest Manaj Diri - Pretest Manaj Diri	Negative Ranks	12 <sup>a</sup>	7.13	85.50
	Positive Ranks	1 <sup>b</sup>	5.50	5.50
	Ties	20 <sup>c</sup>		
	Total	33		

Test Statistics <sup>a</sup>		
Postest		
	Manaj Diri -	
	Pretest	
	Manaj Diri	
Z	-2.952 <sup>b</sup>	
Asymp. Sig. (2- tailed)	.003	

The results of the Wilcoxon statistical test obtained a probability value or p value of 0.003, lower than the significant standard p value of 0.05 or ( $p < \alpha$ ), H1 was accepted, which means that there is an effect of health education on self-management in hypertension patients.

2. The Effect of Health Counseling on Blood Pressure Stability in Hypertension Patients at the Klinik Ronaa Husada July 2024

#### Tabel 13 Cross Tabulation of Systolic Blood Pressure in Hypertension Patients at Klinik Ronaa Husada July 2024

Blood	Blood F	ressure		
Pressure	After Hypertension			
Before	Patients Are Given			
Hypertension	Counseling		Amount	
Patients Are	Stable	Not		
Given	systolic	stable		
Counseling	Systolic	systolic		
Stable	11	1	12	
systolic		I		
Non stable	13	8	21	
systolic	15	0		
Amount	24	9	33	
Uji Wilcoxon=0.001				

Based on the table above, it can be seen that before being given counseling, 21 respondents had unstable systolic blood pressure results. Meanwhile, after being given counseling, it was known that 24 respondents had stable systolic blood pressure results and 9 respondents had unstable systolic blood pressure results.

#### Tabel 14 Statistical Test Results of the Effect of Health Counseling on Self-Management in Hypertension Patients at the Ronaa Husada Clinic July 2024

		Ν	Mea n Rank	Sum of Ranks
	Negative Ranks	13ª	7.50	97.50
Post Sistol - Pre Sistol	Positive Ranks	1 <sup>b</sup>	7.50	7.50
	Ties	19 <sup>c</sup>		
	Total	33		

Test Statistics <sup>a</sup>			
Post Sistol - Pre			
	Sistol		
Ζ	-3.207 <sup>b</sup>		
Asymp. Sig. (2- tailed)	.001		

The results of the Wilcoxon statistical test obtained a probability value or p value of 0.002, lower than the significant standard p value of 0.05 or ( $p < \alpha$ ), H1 was accepted, which means that there is an effect of health education on blood pressure stability in hypertensive patients.

#### Tabel 15 Cross Tabulation of Diastolic Blood Pressure in Hypertension Patients at Klinik Ronaa Husada July

	2	024		
Blood Pressure Before Hypertensi on Patients Are Given Counseling	Blood P aft Hypert Patien Giv Couns Stable diastoli c	er ension ts Are ven	Amount	
Stable diastolic	23	0	23	
Not stable diastolic	10	0	10	
Amount	33	0	33	
Uji <i>Wilcoxon=0.002</i>				

Based on the table above, it can be seen that before being given counseling, 10 respondents had unstable diastolic blood pressure results. While after being given counseling, 33 respondents had stable measurement results.

# Tabel 16 Statistical Test Results of theEffect of Health Counseling on Self-Management in Hypertension Patientsat the Klinik Ronaa Husada July 2024

	Ranks			
		N	Mea n Rank	Sum of Ranks
	Negative Ranks	10ª	5.50	55.00
Post Diastol - Pre Diastol	Positive Ranks	0 <sup>b</sup>	.00	.00
	Ties	23 <sup>c</sup>		
	Total	33		
Test	Statistics <sup>a</sup>		_	
	Post D	)iastol -		
Pre Diastol				
Z	-3.	162 <sup>b</sup>		
Asymp. Sig. (2-tailed) .002				

The results of the Wilcoxon statistical test obtained a probability value or p value of 0.002, lower than the significant standard p value of 0.05 or ( $p < \alpha$ ), H1 was accepted, which means that there is an effect of health education on blood pressure stability in hypertension patients.

#### **IV. DISCUSSION**

1 Interpretation and Discussion of Results

1) Self-Management and Blood Pressure Stability in Hypertension Patients Before Being Given Health Education

Based on table 6 on self-management in hypertensive patients before being given counseling, it is known that as many as 13 respondents with a percentage of 39.4% have poor self-management. Based on this, it is known that 10 respondents with poor self-management have unstable systolic blood pressure results and 6 respondents have unstable diastolic blood pressure results. According to Herpeni (2018) said that several factors that influence selfmanagement include age, gender, ethnicity, education, marital status, and occupation.

When viewed from the table of respondent characteristics based on age, it can be seen that as many as 17 respondents (51.5%) have an age range over 60 years. Age is one of the factors

that influences self-management. Lee et al (2010) found that older patients with hypertension have better self-care behaviors. However, in old age, cognitive abilities can decline and this can affect their self-management and their ability to make daily decisions (Lestari & Isnaini, 2018).

Where with increasing age or in the elderly, the heart will shrink slightly because the left ventricle cavity has decreased a lot due to decreasing activity. In addition, heart muscle cells also decrease, causing a decrease in heart muscle strength. As a person gets older, the maximum heart rate and other functions of the heart gradually decrease, in the elderly blood pressure will increase gradually so that it can cause hypertension in the elderly (Yanti et al, 2021). Based on the table of respondent characteristics based on occupation. it was found that 16 respondents with a percentage of 48.5% had jobs as farmers. According to Munif (2011) said that a person's job can affect the occurrence of hypertension, someone who has a job and quite heavy problems tends to experience pressure and stress that stimulates the heart to beat strongly, causing blood pressure to increase.

According to the author's assumption, low self-management in hypertensive patients can be caused by several factors, namely the respondent's occupation and age. In addition, poor self-management will also have an impact on the patient's blood pressure which tends to be high and unstable. Therefore, the fulfillment of good selfmanagement is very important to be done in order to achieve blood pressure stability in hypertensive patients.

2) Self-Management and Blood Pressure Stability After Being Given Health Counseling

Based on the table of self-management in hypertensive patients after being given counseling, it can be seen that as many as 15 respondents with a percentage of 45.5% have good self-management. Based on this, it is known that 11 respondents have stable systolic blood pressure results and 15 respondents have stable diastolic blood pressure results.

Based on the cross-tabulation of the effect of health counseling on selfmanagement, it was found that there were 5 respondents who still had poor self-management and 1 respondent had quite good self-management from the original dood self-management. Meanwhile, in the cross tabulation of systolic blood pressure, it was found that 8 respondents who still had unstable pressure svstolic blood and 1 respondent whose blood pressure was stable became unstable.

According to Septalia (2010) the success of health education is influenced by several factors, including education, socio-economic level, customs, community beliefs, availability of time in the community.

Judging from the table of respondent characteristics based on their education, it was found that 22 respondents (66.7%) had a final education of Elementary School (SD). According to Maulana, (2007) in (Hadi & Mulyani, 2015) the level of education affects the incidence of hypertension in a person because with minimal education а person does not know how hypertension is and how to prevent it and education also affects the level of anxiety and how a person controls themselves in carrying out activities, especially knowledge and experience gained from the outside environment.

According to Mulyati, Yetti, and Sukmarini (2013), patients with lower levels of education may have more difficulty in mastering the knowledge and skills needed to manage hypertension, so more time is needed to provide education to these patients and patients who have just been diagnosed with

hypertension will need more information, especially regarding the disease, principles of care, and principles of hypertension treatment.

Based on the table of respondent characteristics based on gender, it was found that most of the respondents were female with a total of 24 respondents with a percentage of 72.7%. It was found that female patients had better self-care behavior than male patients. Chung et al (2006) found that women have more knowledge about the disease than men, therefore they may be better able to adapt food to a sodium-restricted diet because they are responsible for preparing food.

Based on the table of respondent characteristics based on age, it is known that more than half of the respondents are over 60 years old. This is in line with the theory put forward by Fatma Ekasari (2021) which states that in a period of less than 30 years, people aged 65 years and over have increased. The increase in systolic blood occurs radically based on elderly people who have hypertension being the main cause of cardiovascular disease.

According to Herpeni (2018) said that self-management is an important factor, where increasing age is often associated with various limitations or damage to sensory functions. So that the need for self-management will increase with age.

According to the author's assumption, self-management is very important for patients with chronic diseases because patients are the only ones responsible for lifelong care related to their diseases. In addition, good self-management will affect the stability of blood pressure in patients. However, in its implementation there are several things that can affect respondents in carrying out selfincluding management, the age, education and gender of the respondent. 3) The Effect of Health Counseling on Self-Management and Blood Pressure Stability in Hypertension Patients

Based on the table data on the effect of health counseling on self-management in hypertension patients, the results of Wilcoxon statistical test were the obtained, namely a p value of 0.003, which is lower than the significant standard p value of 0.05 or (p < $\alpha$ ). H1 is accepted, which means that there is an effect of health counseling on selfmanagement in hypertension patients. Meanwhile, based on the table data, the effect of health education on blood pressure stability shows the results of the Wilcoxon statistical test with a p value of 0.001 lower than the significant standard p value of 0.05 or (p < $\alpha$ ), H1 is accepted, which means that there is an effect of health education on blood pressure stability in hypertensive patients.

This is also in line with Widyaningrum (2013) who said that information obtained by hypertensive patients can result in increased knowledge that will influence public attention to health which can change health behavior which will later improve health maintenance (Suryani, 2018).

Health education about maintaining stable blood pressure to prevent hypertension increases the knowledge of the target community, this happens because they can understand and accept the information provided well so that they can increase knowledge and information about maintaining blood pressure stability from various backgrounds (Yuliani, 2021).

Each patient has their own knowledge to do self-care and the self-care needs of each patient are different. This difference in self-care knowledge in patients is what causes differences in blood pressure in hypertensive patients. The knowledge possessed by patients will increase selfconfidence and foster patient belief in the effectiveness of hypertension treatment. Patients receive who information about a disease and how to treat the disease are more likely to

succeed in managing the disease (Sagala, 2016).

According to the author's assumption, health education or counseling provided to hypertension sufferers can increase motivation and knowledge their to maintain blood pressure stability because it can provide awareness to that individuals optimal physical condition and body resistance are very important to maintain. However, in addition to that, self-management and blood pressure stability are also influenced by several factors that can cause unstable blood pressure even though they have done good selfmanagement, namely age, gender, and it could also be because of the length of time the patient has suffered from hypertension.

#### 2 Research Limitations

In every study, limitations are certainly found, especially in the data collection process. The limitations experienced by the researcher are:

1) The limited number of respondents is certainly still lacking to describe in general because this study only focuses on hypertensive patients.

2) Limited time and energy resulted in very simple data collection so that errors are possible.

3) The data collection process in this study used a questionnaire measuring instrument, so that sometimes it did not show the respondents' actual opinions, this happened because sometimes the differences in thoughts, assumptions and understanding were different for each respondent, as well as other factors such as honesty factors in filling out the respondents' opinions in their questionnaires.

3. Implications for Services, Education and Health

Based on the results of the study, there are several implications that can be

made for improvements in the field of nursing, especially:

1) Nursing Services

It is hoped that the results of this study will have an impact on efforts to improve health services by medical personnel to further improve self-management, especially in hypertensive patients so that blood pressure stability in hypertensive patients can be achieved properly.

#### 2) Education and Health

It is hoped that the results of this study can be used as study material on improving self-management of hypertensive patients by carrying out routine activities under the auspices of health programs carried out by health services so that blood pressure stability is achieved in hypertensive patients.

#### V. CONCLUSION

1. Self-management before being given counseling showed that there were 13 respondents who had poor selfmanagement. While blood pressure in hypertensive patients before being given counseling was found that 21 respondents had unstable systolic blood pressure results and 23 respondents had stable diastolic blood pressure results.

2. Self-management after being given health counseling showed that there were 15 respondents who had good selfmanagement. Meanwhile, blood pressure after being given health counseling showed that as many as 24 respondents had stable systolic blood pressure results and as many as 33 respondents had stable diastolic blood pressure results.

3. There is a significant influence of health counseling on self-management and blood pressure stability in hypertensive patients

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