# Relationship between Knowledge Level and Efforts to Control Blood Pressure in Hypertension Patients in the Work Area of Karangmulya Health Center, Karangpawitan District, Garut Regency 

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ARTICLEINFO
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Keywords:
Blood Pressure, Controlling Hypertension, Knowledge.

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ABSTRACT
Hypertension is one of the common health problems. People with hypertension must be able to control their blood pressure to avoid serious diseases such as stroke, heart failure, kidney failure and other chronic diseases. To avoid seious status, good knowledge is needed. Controlling blood pressure is the key to success for all people with hypertension to prevent severe increases in blood pressure. This research uses descriptive correlation method. This research was conducted in the district Karangmulya Garut. Population is all people hypertension in the Karangmulya working area of the district. The sample was determined by the Non Probability Sampling technique, quota sampling. The sample of the study was 57 respondents. The results showed that more than half of the respondent had a good level of knowledge which was as much as $70.2 \%$. More than half of the sufferers in the Karangmulya Community Health Center work to prevent recurrence of hypertension that has remained as much as $57.9 \%$. From the results of statistical tests obtained $p$ value $0.00(<0.05)$, with a correlation coefficient ( $r$ ) of 0.609 which means that there is a significant relationship between the level of knowledge about hypertension and prevention of recurrence in patients with hypertension. Given that there are several findings in the study and limitations in this study, it is expected that in the future various parties can examine other factors related to the level of knowledge about hypertension and efforts to prevent recurrence in patients with hypertension, excluding the factors discussed in this study ..

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## 1. Introduction

Hypertension or the general public knows that high blood pressure is a disease with an increasing number of events every year. Based on data basic health research the incidence of hypertension in 2013 was $25.8 \%$ and in 2018 the incidence of hypertension was $34.1 \%$ (Agency, 2013,2018 ). Seeing these data, it is really feared that in the long run hypertension will be higher, the high incidence of hypertension will also affect the high rates of other chronic diseases as hypertension complications such as: repeated stroke, heart failure, kidney failure and other serious illnesses which also have an impact on high mortality and pain(Botdorf, Chaudhary, \& WhaleyConnell, 2011; Wang et al., 2013;Pranandari \& Supadmi, 2015; Nugraha, Patimah, \& Suharta, 2019). Patients with hypertension as early as possible should be aware of their condition so that complications can be avoided by means of good hypertension management. But the reality is 30$50 \%$ of hypertensive patients are not aware of their illnesses so that regular blood pressure checks and information notices are required so that sufferers of hypertension comply with therapeutic guidelines to avoid various kinds of complications that can appear suddenly (Guillen, 2018). Blood pressure control is the key to the success of the management of hypertension. As a disease known asa silent killer (silent killer) blood pressure control is the key to the successful management of long-term hypertension. Blood pressure control includes lifestyle modifications such as weight control, increasing physical activity and reducing sodium and potassium intake(World Health Organization, 2005; Alsaigh, Alanazi \& Alkahtani, 2018). Patients who suffer from hypertension should know well how to control blood pressure techniques so that they are integrated with everyday lifestyle. Good knowledge is the initial capital that must be possessed by patients with hypertension so that patients understand the therapeutic program which will then be provided. The key to successful blood pressure control is what health workers are accustomed to convey as general management of various diseases. But unfortunately not all people with hypertension know this well. According to the statements of several patients or respondents who were strengthened by the results of the interview on December 22, 2017,

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## 2. Method

The research design used in this study is descriptive correlation using a cross sectional approach. The independent variable in this study is the knowledge of hypertension sufferers about hypertension and the dependent variable in this study is the effort to control blood pressure in patients with hypertension. The population in this study were all patients suffering from hypertension in the Karangmulya Health Center Work Area. The sampling technique in this study was to use purposive sampling involving a sample of 57 people. Research tools in the form of a questionnaire of 2 questionnaires related to knowledge about hypertension and blood pressure control efforts. The data analyzed using univariate analysis is the level of knowledge of hypertension sufferers about hypertension and prevention of hypertension recurrence. Then the data is tabulated, interpreted and then processed statistically using the formula: then the data analysis uses a nonparametric statistical test, the correlation of "Rank Spearman" to see the relationship between variables.

## 3. Research and Analysis Results

Table 1
Frequency Distribution of Patients with hypertension in the working area of Karangmulya Health Center, Karangpawitan District, Garut Regency

| Characteristics | Amount (n = 57) | Percent (\%) |
| :--- | :--- | :--- |
|  |  |  |
| Gender | 25 | 43.9 |
| Male | 32 | 56.1 |
| Girl | 57 | 100 |
| amount |  |  |
| Age (years) | 21 | 36.8 |
| $50-60$ | 30 | 52,6 |
| $61-70$ | 5 | 8.8 |
| $71-80$ | 1 | 1.8 |
| $>80$ | 57 | 100 |
| amount |  |  |
| Profession | 7 | 12.3 |
| Retired | 11 | 19.3 |
| Traders / Entrepreneurs | 9 | 15.8 |
| Farmers | 1 | 1.8 |
| Private employees | 5 | 8.8 |
| Labor | 24 | 42.1 |
| Not Working / IRT | 57 | 100 |
| amount |  |  |
| Income | 11 | 19.3 |
| <Rp. 800,000 | 27 | 47.4 |
| Rp. 800,000 to 1,000,000 | 19 | 33.3 |
| $>$ Rp. 1,000,000 | 57 | 100 |
| amount |  |  |
| Education | 13 | 22.8 |
| Elementary school | 20 | 35.1 |
| Middle School / equivalent | 11 | 19.3 |
| SMA / equivalent | 9 | 15.8 |
| College | 4 | 7.0 |
| No school | 57 | 100 |
| amount |  |  |
|  |  |  |

Based on table 1 above it can be seen that the characteristics of the study respondents were mostly female (56\%), aged 61-70 years as many as 30 people with hypertension (52.6\%). Almost all hypertension sufferers do not work as many as 24 hypertension sufferers (42.1\%). Nearly most people with hypertension have an income of between Rp. 800,000 up to Rp. 1,000,000, namely 27 patients with hypertension (47.4\%). And almost most people with hypertension have an education level of junior high school / equivalent, as many as 20 people with hypertension (35.1\%).

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Table 2
Relationship between the level of knowledge about hypertension and blood pressure control efforts in patients with hypertension in the working area of Karangmulya Health Center, Karangpawitan District, Garut Regency

| Level <br> Knowledge$\quad$ ofPatientshypertension with | Blood pressure control efforts |  |  |  | Total |  | p-value | $\alpha$ | $r$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Not controlling |  | control |  |  |  |  |  |  |
|  | F | \% | F | \% | F | \% | 0,000 | 0.05 | 0.609 |
| Less | 15 | 26.3 | 2 | 3.5 | 17 | 29.8 |  |  |  |
| Good | 9 | 15.8 | 31 | 54.4 | 40 | 70.2 |  |  |  |
| Total | 24 | 42.1 | 33 | 57.9 | 57 | 100 |  |  |  |

From table 2 above, it can be explained that hypertension sufferers who have less knowledge level tend not to make recurrence prevention efforts as many as 15 respondents or $26.3 \%$, and respondents who have good knowledge make more efforts to prevent relapse as many as 31 people with hypertension or $54.4 \%$. From the statistical test results obtained p value 0.00 ( $<0.05$ ) which means the null hypothesis is rejected, with a correlation coefficient (r) 0.609 meaning that there is a significant relationship between the level of knowledge about hypertension with blood pressure control efforts in hypertensive patients in the Work Area Karangmulya Health Center, Karangpawitan District, Garut Regency.

From the results of research on hypertension sufferers who have less knowledge of the level of effort to control blood pressure less than hypertension sufferers who have good knowledge where sufferers with good knowledge attempt to control blood pressure more. Knowledge is one of the factors that influences a person's compliance. In annisa research results (2013) it is known that knowledge influences the health of patients with hypertension in undergoing treatment,(Annisa \& Ansar, 2013). Based on the results of the study we can know that the level of knowledge of hypertension sufferers in the Karangmulya Community Health Center in Karangpawitan District Garut Regency is more than most at a good level of 40 hypertension sufferers ( $70.2 \%$ ). This shows that the majority of people with hypertension have a good level of knowledge about hypertension.

Knowledge is a product of information. When information is analyzed, processed and placed according to its place, it is called knowledge(Khan, 2014). Knowledge related to hypertension is a collection of information designed related to hypertension itself including hypertension and its management. According to Mubarak, there are several factors that can influence knowledge including: Level of education, occupation, age, interests, experience, culture and information(Wardani, Sarwani, \& Masfiah, 2014). Hypertension is influenced by various factors including factors that can not be modified such as: heredity, genetic or modifiable factors such as body weight, physical activity, alcohol consumption and smoking(Guillen, 2018).

One factor that influences a person's knowledge is the age factor. The more elderly someonethe ability to absorb information will decrease. This is because the condition of someone who is elderly tends to experience a decrease in memory and it will affect the response or answers given related to hypertension. In addition, viewed from the psychological aspects of decreased memory will cause brain degeneration and decreased orientation(Prasetiyo Tri Utomo, 2013). Besides the age factor of educational background will affect one's knowledge. The higher the level of education, the higher the level of knowledge this is in line with several studies including: the level of education in women related to knowledge of breast cancer risk factors(Sari, 2010); in women related to BSE knowledge (check your own breasts)(Hanifah et al., 2010); to the public about knowledge of healthy hygiene behavior(Daughter, 2017) ;

From the results of this study it is known from 57 respondents, 40 respondents have good knowledge. But among 40 respondents who have good knowledge there are 9 people who concluded that the effort to control pressure in the category is not good. Good knowledge should be expected to have good control too. However, some respondents in this study were not like that. A good level of knowledge should also be accompanied by a good understanding, because not all hypertensive patients who have good knowledge have good understanding. (Oliveria, Chen, Mccarthy, Davis, \& Hill, 2003)Therefore, health education is needed to be able to increase patient understanding related to the program provided can improve patient discipline in maintaining their health, especially from hypertension. Nurses as an integral part of health services contribute to increasing knowledge, by sharing directly with the public about the information needed for

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hypertension sufferers(Patimah, Megawati, \& Suryawantie, 2018). The ease of obtaining information can speed someone to gain new knowledge. Information received as a whole can improve both in terms of knowledge and behavior of patients with hypertension in the management of this disease independently. The information provided should be followed by regular evaluation and follow-up to see the patient's understanding so that blood pressure control is as expected(Patimah, Megawati, et al., 2018; Patimah, Nugraha, et al., 2018)

## 4. Conclusion

More than some of the respondents in the study l had a good level of knowledge and More than some of the respondents attempted to prevent a relapse of hypertension suffered. relationship which is quite significant Among the level of knowledge about hypertension with efforts to prevent recurrence in patients with hypertension in the Karangmulya Health Center Work Area Karangpawitan District Garut Regency. From the results of this study it is expected that health workers can provide better knowledge by using a variety of appropriate media.

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