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# ANALYSIS OF DEMOGRAPHIC CHARACTERISTICS WITH SELF MANAGEMENT HYPERTENSION IN THE ELDERLY

**Ferdi Riansyah[1], Fitria[2], Nizan Mauyah[3], Mela Hayani[4]**

[1]Keperawatan, Fakultas Sains, Teknologi dan Ilmu Kesehatan, Universitas Bina Bangsa Getsempena, Indonesia
[2] Kebidanan, Fakultas Sains, Teknologi dan Ilmu Kesehatan, Universitas Bina Bangsa Getsempena, Indonesia
[3]Kebidanan, Poltekkes Kemenkes Aceh
[4]Keperawatan, Fakultas Sains, Teknologi dan Ilmu Kesehatan, Universitas Bina Bangsa Getsempena, Indonesia
Corresponding Author: ferdi@bbg.ac.id

## ABSTRACT

Treatment and care of hypertension is a long process that requires strategies to manage the disease, one of which is self-management. Based on the results of a field survey conducted by researchers, it was found from 13 samples that were observed through unstructured interviews that 11 of them entered the pre-elderly age period who had long experienced hypertension and regularly took hypertension drugs. This study aims to determine the relationship between demographic characteristics and hypertension self-management in the elderly in U Baroh Village, Cot Girek District, North Aceh. The population in this study were 229 elderly people in U Baroh Village, Cot Girek District, North Aceh District. The sampling technique used simple random sampling technique as many as 69 respondents. Data analysis was performed univariately and bivariately using the Chi Square test. Based on the results of the study, it showed that there was a relationship between work and management cells with a p value of 0.002 <0.05, which meant that there was a significant relationship between work and self-management in the elderly in U Baroh Village, Cot Girek District, North Aceh. The ability to manage hypertension tends to decrease with age. Therefore, it is important to provide early and continuous education to enhance knowledge inmanaging hypertension.

Keywords: knowledge, self-management, hypertension



## INTRODUCTION

According to WHO (World Health Organisation) hypertension is a systolic blood pressure equal to or above 140 mmHg and or diastolic blood pressure equal to or above 90 mmHg. Until now, hypertension is still a global problem and the leading cause of premature death worldwide. The number of adults with hypertension increased from 594 million in 1975 to 1.13 billion in 2015. The disease is growing rapidly in low- and middle-income countries. This increase is mainly due to the increase in risk factors for hypertension in these populations. The highest prevalence of hypertension in Africa reached (27%) while the lowest prevalence of hypertension in the Americas was (18%). (WHO, 2019)

Hypertension is one of the most prevalent diseases in developing countries. It contributes to the high burden of heart disease, stroke, kidney failure, disability and premature death (WHO, 2013). It is estimated that nearly 10% of all deaths are from hypertension (Patel et al., 2011). The World Health Organization (WHO) in 2018 also noted that one billion people in the world suffer from hypertension and it is estimated that by 2025 there will be an increase in hypertension sufferers from 972 million (26.4%) people to 29.2% and 30% of these sufferers are in developing countries. Three quarters of hypertensive patients (639 million) live in developing countries with limited resources, have little knowledge about hypertension and poor control of the condition. In Indonesia, the prevalence of hypertension has increased from

25.8% (Riskesdas, 2013) to 34.1% (Kemenkes RI, 2018).

Hypertension is one of the chronic diseases that requires self-care management by managing and controlling the disease and preventing complications. Self-care management is a person's ability to be effective by living a healthy lifestyle in controlling and reducing pain in the future. (Khoiriyah & Mustajab, 2023)

There are several factors that influence self-management in patients with hypertension including knowledge, education level, social support, self-efficacy and duration of hypertension. Knowledge possessed by patients will increase self-confidence and foster patient confidence in the effectiveness of hypertension treatment. Therefore, understanding of the disease must be done thoroughly, both the risk factors, diagnosis, treatment and complications. Self-management in hypertension patients that is carried out effectively is beneficial for increasing patient satisfaction in living life, reducing treatment costs, increasing patient confidence and independence, and improving patient quality of life (Mulyati L, et al, 2013).

Self-management behaviour is influenced by several factors, such as education, knowledge, increasing age, perception of disease and length of illness (Romadhon, Aridamayanti, Syanif & Sari, 2020). The results of research by Puspita, Oktaviarini & Santik (2017), patients who have hypertension ≥ 5 years tend to be non-compliant with treatment. The longer a person suffers from hypertension, the lower the level of compliance caused by saturation with treatment. According to research by Wahyudi, Ratnawati & Made (2017), in patients whose age range is 56-65 years the majority have self-management will decrease. This shows that as a person gets older, the level of self-management will decrease.

The elderly tend to experience hypertension due to arterosclerosis and stiffening, decreased cardiac contractility, reduced vascular elasticity, and lack of effectiveness of peripheral blood vessels for oxygenation. This causes an increase in vascular resistance so that the elderly tend to be more prone to hypertension (Setiawan, Wungouw & Pangemanan, 2013). Hypertension has common symptoms that will arise such as headaches, heaviness in the neck, easy fatigue, blurred vision and difficulty sleeping (Manuntung, 2018).

Uncontrolled blood pressure can lead to the risk of hypertension complications, one of the efforts in preventing hypertension complications needs to be increased and prevented. Prevention of hypertension can be done by pharmacological treatment using anti-hypertensive drugs to lower blood pressure and non-pharmacological treatment using herbal therapy or complementary therapy. Lifestyle changes such as weight control, modifying diet, quitting smoking, regular pressure checks. (Alkautsar & Kartinah, 2023)

Based on the results of a field survey conducted by researchers, it was found that of the 13 samples observed through unstructured interviews, 11 of them were in the pre-elderly age period who had experienced hypertension for a long time and routinely took hypertension drugs.

Hypertension self-management can be done with 5 components, namely self-integration, self-regulation, interaction with health workers, self-monitoring, and compliance with recommended rules. And shows that there is a very significant positive influence between Self-Management. The higher the Self-Management, the lower the blood pressure of the elderly who experience hypertension. The purpose of this study was to analyse demographic characteristics with hypertension self-management in the elderly in U Baroh Village, Cot Girek District, North Aceh Regency.

## METHOD

This research design uses a type of correlation design in which research is carried out at the same time which aims to find relationships between variables and to obtain more complete data. This research was conducted in U Baroh Village, Cot Girek District, North Aceh Regency. The population in this study was 229 elderly people in U Baroh Village, Cot Girek District, North Aceh Regency. The sampling technique used simple random sampling technique as many as 69 respondents.

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## RESULTS

**Table 1 Distribution of Respondent Characteristics**

| No | Characteristics | f | % |
|---|---|---|---|
| 1 | Age | | |
| | middle 45-59 | 41 | 58.6 |
| | elderly 60-74 | 26 | 37.1 |
| | very old 75-90 | 3 | 4.3 |
| 2 | Gender | | |
| | male | 36 | 51.4 |
| | female | 34 | 48.6 |
| 3 | Occupation | | |
| | not working | 31 | 44.3 |
| | private employee | 15 | 21.4 |
| | self-employed | 5 | 7.1 |
| | Civil Servant | 4 | 5.7 |
| | farmer | 15 | 21.4 |
| 4 | Education | | |
| | low | 36 | 51.4 |
| | medium | 24 | 34.3 |
| | high | 10 | 14,28 |
| 5 | Status | | |
| | unmarried | 5 | 7.1 |
| | married | 60 | 85.7 |
| | divorced | 5 | 7.1 |
| | Total | 70 | 100 |

The table above explains the frequency distribution of the age of the majority of respondents in the middle age of 45-59 years (58.6%) 41 respondents, the frequency distribution of the gender of the majority of respondents is in the male category (51.4%) 36, the frequency distribution of the occupation of the majority of respondents is in the category of not working (44.3%) 31 respondents. The frequency distribution of respondent education was mostly in the low category (51.4%) 6 respondents and the frequency distribution of respondent status was mostly in the married category (87.5%) 60 respondents.

**Tabel 2 Frequency Distribution of Self-management**

| No | Self-manajemen | f | % |
|---|---|---|---|
| 1 | Good | 48 | 68.6 |
| 2 | Less | 22 | 31.4 |
| | Total | 36 | 100 |

The table above explains the frequency distribution of self-management of respondents, the majority of which are in the good category (68.6%) 48 respondents and the minority are in the less category (31.4%) 22 respondents.

**Tabel 3 Relationship between age and self-management**

| No | Age | Self-manajemen | | | | Total | | P value |
|---|---|---|---|---|---|---|---|---|
| | | good | | less | | | | |
| | | f | % | f | % | f | % | |
| 1 | 45-59 | 32 | 78 | 9 | 22 | 41 | 100 | 0,027 |
| 2 | 60-74 | 13 | 50 | 13 | 50 | 26 | 100 | |
| 3 | 75-90 | 0 | 100 | 0 | 0 | 3 | 100 | |
| Total | | 48 | 68,6 | 22 | 31,4 | 70 | 100 | |

The results showed there was a relationship between age and cell management with a p value of 0.027 <0.05, which means there is a significant relationship between age and self-management.

**Tabel 4 Relationship between gender and self-management**

| No | Gender | Self-manajemen | | | | Total | | P value |
|---|---|---|---|---|---|---|---|---|
| | | Good | | Less | | | | |
| | | f | % | f | % | f | % | |
| 1 | Male | 30 | 83,3 | 6 | 16,7 | 36 | 100 | 0,006 |
| 2 | Female | 18 | 52,9 | 16 | 47,1 | 34 | 100 | |
| Total | | 48 | 68,6 | 22 | 31,4 | 70 | 100 | |

The results showed that there was a relationship between gender and cell management with a p value of 0.006 <0.05, which means that there is a significant relationship between gender and self-management.

**Tabel 5 Relationship of work with self-management**

| No | occupation | Self-manajemen | | | | Total | | P value |
|---|---|---|---|---|---|---|---|---|
| | | Good | | Less | | | | |
| | | f | % | f | % | f | % | |
| 1 | Not working | 26 | 89,9 | 5 | 16,1 | 31 | 100 | |
| 2 | Private employee | 6 | 40 | 9 | 60 | 15 | 100 | 0,041 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | self-employed | 4 | 80 | 1 | 20 | 5 | 100 |
| 4 | Civil Servant | 3 | 75 | 1 | 25 | 4 | 100 |
| 5 | Farmer | 9 | 60 | 6 | 40 | 15 | 100 |
| Total | | 48 | 68,6 | 22 | 31,4 | 70 | 100 |

The results showed that there was a relationship between work and cell management with a p value of 0.002 <0.05, which means that there is a significant relationship between work and self-management.

**Tabel 6 The relationship between education and self-management**

| No | Education | Self-manajemen | | | | Total | | P value |
|---|---|---|---|---|---|---|---|---|
| | | Good | | Less | | | | |
| | | f | % | f | % | f | % | |
| 1 | Rendah | 30 | 83,3 | 6 | 16,7 | 36 | 100 | 0,002 |
| 2 | sedang | 10 | 41,7 | 14 | 58,3 | 34 | 100 | |
| 3 | Tinggi | 8 | 80 | 2 | 20 | 10 | 100 | |
| Jumlah | | 48 | 68,6 | 22 | 31,4 | 70 | 100 | |

The results showed that there is a relationship between education and self-management with a p value of 0.002 <0.05, which means that there is a significant relationship between education and self-management.

## DISCUSSION

### Age with hypertension self-management

Based on the results of the study, it can be seen that from the results of the study showed that there was a relationship between age and self-management with a p value of 0.027 <0.05, which means that there is a significant relationship between age and self-management. The results of this study are supported by Tursina, Sya'id (2022), showing factors that are significantly related to the self-management ability of hypertensive patients are the duration of illness and age (p>0.05).

The results of this study are not in line with research by Novitaningtyas (2014), showing that the tendency of subjects who experience hypertension between the age categories of elderly and old is almost the same. The age category of old people who experience hypertension is 42.9%, while the elderly category is 42.4% of subjects. The results of statistical tests using the Spearman Rank test obtained a p value of 0, (p>0.05), so H0 is accepted so that there is no relationship between the age of the elderly and blood pressure.

Age is the age of the individual starting from birth until repeated years. the more age, the level of maturity, and the strength of a person will be more mature in thinking and working. In terms of community trust, a more mature person is trusted than someone who is not yet high in maturity. This is as experience and mental maturity (Lasut, et al., 2017).

The increase in hypertension cases in late adulthood and the elderly in the community shows the high or low ability of the community in hypertension disease management. Increasing age affects independence from various aspects of life, especially in fulfilling the needs of daily life, especially poor self-management of hypertension in the elderly (Sakinah, 2020)

In this study, it was explained that the younger the age of a person, the easier it is to accept the information provided so that the management of the disease is also better.

### Gender with hypertension self-management

Based on the results of the study, it can be seen that from the results of the study showed that there was a relationship between gender and cell management with a p value of 0.006 <0.05, which means that there is a significant relationship between gender and self-management.

The results of this study are not in line with the research of Herwanti and Lalang (2022), the results of this study indicate that gender demographic characteristics do not have a significant relationship to self care. This is evidenced by the p-value obtained for gender with self care is 0.495 and greater than 0.05. These results state that there is no difference in self-care for respondents who are male and female.

The definition of sex is the classification or division of two specific sexes. Sex differentiation is a provision that cannot change and is often said to be a nature from God. The concept of gender is a trait attached to men and women that is socially and culturally constructed. For example, women are

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known to be gentle, beautiful, emotional, or motherly, while men are considered strong, rational, virile, and mighty. The traits attached to men and women based on gender are interchangeable. We may find men to be gentle and women to be strong (Ariyanti, 2020).

Self-management is an activity or step to organise and manage oneself as well as possible so that it can lead to the achievement of life goals that have been set by individuals (Rujiwatthanakorn et al., 2011). In patients with chronic diseases, self-management is defined as the patient's ability to manage symptoms, treatment, physical and psychosocial consequences and lifestyle inherent in daily life with chronic conditions (Bengtsson, 2015).

Hypertension self-management is a series of techniques provided by health care personnel to assist patients in changing their behaviour, thoughts and feelings so as to reduce or maintain stable blood pressure (Inda Galuh Lestari & Isnaini, 2018).

According to the researcher's assumption, the patient's gender is very influential on self-management in hypertensive patients, because male respondents have a negative lifestyle.

**Employment with hypertension self-management**

Based on the results of the study, it can be seen that from the results of the study, it shows that there is a relationship between work and cell management with a p value of 0.002 <0.05, which means that there is a significant relationship between work and self-management.

The results of this study are not in line with the research of Herwanti and Lalang (2022), the results of the study found that occupational demographic characteristics do not have a significant relationship to self care. This is evidenced by the p-value obtained for gender with self care is 0.406 and greater than 0.05.

Occupation is any person who works by receiving wages and rewards in other forms. This definition is different from the definition of labour in other forms, as stated in Law No. 13/2003 on Manpower, which states that labour is every person who is able to do work in order to produce goods and/or services to meet their own and the needs of the community.

Work that a person undertakes over a long period of time is referred to as a career. A person may work for different companies during his/her career but still in the same job. The most desired vacancies for Indonesians are civil servants, and state-owned enterprises employees. Their assumption may be that because they are civil servants or SOE employees, the salary is stable and guaranteed.

Self-management is an activity or step to organise and manage oneself as well as possible so that it can lead to the achievement of life goals that have been set by individuals (Rujiwatthanakorn et al., 2011). In patients with chronic diseases, self-management is defined as the patient's ability to manage symptoms, treatment, physical and psychosocial consequences and lifestyle inherent in daily life with chronic conditions (Bengtsson, 2015).

According to the researcher's assumption, the respondent's job is very influential on self-management. The better the respondent's job, the better the self-management.

**Education with hypertension self-management**

Based on the results of the study, it can be seen that from the results of the study, it shows that there is a relationship between education and self-management with a p value of 0.002 <0.05, which means that there is a significant relationship between education and self-management. This research is in line with research conducted by Sakinah, Ratu and Weraman (2020), the results showed that there is a significant relationship between education and self-management with a p value of 0.000.

The results of this study are not in line with the research of Herwanti and Lalang (2022), the results of the study did not have a significant relationship with self care. This is evidenced by the p-value obtained for education with self care is 0.614 and greater than 0.05.

Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character and skills needed by themselves and society (Law of the Republic of Indonesia Number 20 of 2003).

The level of education according to Lestari in Wirawan (2016) is an activity of a person in developing his abilities, attitudes, and forms of behaviour, both for future life where through certain organisations or unorganised. Self-management is an activity or step to organise and manage oneself as well as possible so that it can lead to the achievement of life goals that have been set by individuals (Rujiwatthanakorn et al., 2011).

One's level of education can affect one's knowledge as well. Knowledge is different in performing self-care and self-care needs are also different. This difference in knowledge causes differences in patient beliefs about the effectiveness of hypertension treatment.

Self-management of hypertension is a series of techniques provided by health care workers to assist patients in changing their behaviour, thoughts and feelings so that they can reduce or maintain stable blood pressure (Inda Galuh Lestari & Isnaini, 2018). According to the researcher's assumption, the higher the respondent's education, the easier it is to receive information about self-management.

In connection with the results of the study, the implication of the study is the need for early education to increase knowledge and management of hypertension self management in the elderly. Health workers have an important role in improving the quality and well-being of life in the elderly. (Andayani, 2023)

## CONCLUSION

Demographic characteristics with hypertension self management in the elderly showed a significant relationship between age, gender, occupation, and education with self management in the elderly in U Baroh Village. Increased knowledge in the management of hypertension through early and continuous education will increase one's compliance in hypertension self management.

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