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The Relationship of Self-Management with the Level of Medication Compliance in Elderly with Hypertension in Public Health Center

¹ Nadhira Alya Putri, ² Syarifa Atika, ³ Neti Hartaty

^{1,2,3} Department of Family Nursing, Faculty of Nursing, Universitas Syiah Kuala, Indonesia

Corresponding Author: **Syarifa Atika**

Abstract

Hypertension continues to be a disease that often appears among the elderly. One of the factors that causes high levels of hypertension is because people's cultural habits are very familiar with various foods that contain high salt, and lack of good self-management can affect the level of treatment compliance in sufferers. The use of antihypertensive drugs is an alternative for controlling blood pressure. Good self-management can also prevent complications from hypertension. This research aims to see the relationship between self-management and the level of adherence to taking medication. The population in the community research in the Ulee Kareng Public Health Center area was 591 people, with a sample of 164 using purposive sampling.

The research results showed that 17 respondents (10.4%) were in the good self-management category, 135 respondents (82.3%) were in the adequate category, and 12 respondents (7.3%) were in the poor category. Respondents with medication adherence in the high category were 54 respondents (32.9%), and in the low category were 110 respondents (67.1%). Analysis test results using chi-square show a significant relationship between self-management and the level of compliance with taking medication in the elderly (p-value 0.268). The suggestion is to improve the quality of health services by conducting home visits and providing health education regarding hypertension, and medication adherence.

Keywords: Self-Management, Hypertension, Medication

Introduction

Hypertension is a non-communicable disease characterized by an increase in blood pressure exceeding 140/90 mmHg. Hypertension is also classified as a silent disease because people do not know they have hypertension until they are diagnosed with hypertension. The incidence of hypertension increases with age (Purnawinadi and Lintang, 2020) ^[13]. As we age, several changes occur in the structure and function of cells. This change is influenced by deterioration in physical health which influences disease susceptibility (Akbar, Nur, and Humerah, 2020) ^[2]. Uncontrolled high blood pressure can cause dangerous complications such as coronary artery disease, stroke, kidney problems, and vision problems.

One of the factors causing the high level of hypertension in Aceh is that the people's culture is very familiar with various dishes that are rich in salt (sodium), such as kuah belangong. In the province of Aceh, kuah belangong is a dish that is an integral part of the traditions of the Acehnese people in various activities and events (Murtaza, 2021). Basic Health Research 2018 shows that the prevalence of non-communicable diseases has increased. Based on the results of blood pressure measurements, hypertension increased from 25.8% to 34.1% (Mutmainnah, Kunoli, and Nurjanah, 2019) ^[10]. The prevalence of hypertension at ages 45-54 years is 45.3%, and at ages 55-64 years is 55.2%. There are several provinces with the highest prevalence of hypertension, namely South Kalimantan (44.1%), while the lowest is Papua at 22.2%. According to Risdas Aceh, Banda Aceh is the highest region with hypertension at 55.42%. Therapy for patients with hypertension aims to reduce blood pressure to normal limits or to the lowest value that can still be achieved and can improve quality of life and prevent other complications. Pharmacological therapy can be carried out using anti-hypertension drugs (Wirakhmi and Purnawan, 2021) ^[8].

Patient compliance in taking medication will greatly influence the success of treatment therapy. Adherence to therapy is the level of compliance with prescribed treatment recommendations. Treatment adherence has a good prognosis for quality of life. Compliance with taking medication is also very important for hypertension sufferers. Taking medication regularly can control blood pressure and can reduce the risk of damage to organs such as the heart, kidneys and brain (Indriana, Swandari, and

Pertiwi, 2021) [4]. In terms of compliance with taking hypertension medication, it can be influenced by various factors, including the length of time you suffer from hypertension, the amount of medication consumed, and the time taken to regain control. Apart from that, sufferers are also afraid of the side effects of frequently taking medication (Padaunan, Pitoy, and Wongkar, 2022) [11].

This often becomes a serious problem, because hypertension is a chronic disease that cannot be cured but can only be controlled by taking antihypertensive drugs (Ramadhanti and Zuriyati, 2020) [14]. Other factors that influence medication adherence in hypertension sufferers are age, living alone, personality, perception, attitude, stigma, family support, understanding of prescriptions, time to take medication, availability of medication, and the number of types of medication (Megawatie, Ligata, and Sukarni, 2021) [7].

The success of hypertension management strategies depends on the patient's self-care treatment or the patient's ability and willingness to change and maintain certain behaviors (Kurnia and Nataria, 2021) [5]. Self-management is a person's ability to understand the symptoms and consequences of chronic diseases such as treatment and care, physical activity, social activities, and lifestyle changes. Hypertension requires good self-management aimed at preventing morbidity, and mortality arising from hypertension (Ramadhanti and Zuriyati, 2020) [14].

Based on research conducted by Sri Wulandari (2021) entitled The Relationship between Knowledge and Self-Care Management and Compliance with Taking Medication in Hypertension Patients in the Indralaya Public Health Center Work Area, the results showed that there was no significant relationship between knowledge and compliance with taking medication in respondents and there was a significant relationship between self-care management and medication adherence among respondents. There was no significant relationship between knowledge and medication adherence among respondents, and there was a significant relationship between self-care management and respondents' medication adherence.

Research conducted by Kurnia and Nataria (2019) entitled Self Management (self-management) Healthy Behavior in Hypertension Patients shows that the respondents' habits of carrying out light and moderate activities every day because of work, as well as the education provided by public health center staff, play a very big role in exercise behavior and healthy diet that respondents carry out in their daily lives.

Method

This type of research is quantitative and uses a correlative descriptive method, a method used to see the relationship or situation between two variables. The self-management questionnaire was adapted from Agastiya, Nurhesti, and Manangkot (2020) [1] from Akhter (2010) [3]. The self-management questionnaire consists of 32 questions. Self-integration (1-9), self-regulation (10-16), interaction with other health workers (17-22), blood pressure monitoring (23-27), and adherence to recommended regimens (28-32). This questionnaire uses a Likert scale with four answer choices, namely 4 = always, 3 = often, 2 = sometimes, and 1 = never.

Morisky Eight Item Medication Adherence Scale (MMAS) 8, adopted from Harisdiana (2022) and back-translated from Morisky's (2008) [9]. The MMAS questionnaire

consists of 8 questions that function to assess compliance with medication use in hypertension sufferers. MMAS-8 consists of 8 closed questions in the form of "yes" and "no" answers. Each question will be given a respective scoring, namely seven dichotomous scale questions and one Likert scale question. Each answer "No" is given a value of 1 and the answer "Yes" is given a value of 0 except for question item number 5. For item number 8 there are several choices, "Never" has a score of 1, "Occasionally" has a score of 0.75, "Sometimes" has a score of 0.5, "Usually" has a score of 0.25, and "Always" has a score of 0. The Morisky Medication Adherence Scale-8 (MMAS-8) is categorized into two levels high adherence (score ≥ 6) and low adherence (score < 6). The Self Management Behavior Questionnaire (HSMBQ) questionnaire has been tested for reliability by Agastiya, Nurhesti, and Manangkot (2020) [1] and obtained a Cronbach's Alpha value of 0.945 and the Morisky Medication Adherence Scale-8 (MMAS-8) questionnaire is no longer tested because it is a standard instrument. The question items from the instrument are an appropriate instrument for measuring the level of adherence to taking hypertension medication, in general, the Cronbach's Alpha score is 0.83.

Result

Univariate Analysis

Based on the results, it is known that the majority of respondents were aged 60-69 years, namely 129 respondents (78.7%). Based on gender, the majority of respondents were female, 99 respondents (60.4%). Based on who they live with, 91 respondents (55.5%) live with their family, namely husband/wife. Most of the jobs, 101 respondents (61.6%) did not work. Based on blood pressure, most respondents were at level 2 hypertension, 96 respondents (58.5%). Based on the length of time they have suffered from hypertension, 112 respondents (68.3%) have suffered from hypertension for 2-5 years.

Table 1: Frequency Distribution of Respondent Demographic Data in the working area of Ulee Kareng Public Health Center in 2023 (N=164)

Data Demografi	Frequency	Percentage
Age		
60-69 Years	129	78,7
>70 Years	35	21,3
Gender		
Woman	99	
Man	65	39,6
Who Lives With		
Child	53	32,3
Husband and wife	91	55,5
Other Families	20	12,2
Occupation		
Doesn't work	101	61,6
Self-employed	16	9,8
Laborer	14	8,5
Farmer	15	9,1
Civil servants	2	1,2
Retired	16	9,8
Blood Pressure		
Normal	4	2,4
Pre Hypertension	11	6,7
Grade1 Hypertension	53	32,3
Grade 2 Hypertension	96	58,5
Long of Suffering		
<1 Year	10	6,1

2-5 Years	112	68,3
6-10 Years	40	24,4
>11 Years	2	1,2

Self-management of hypertension sufferers

Based on Table 2 below, it shows that the frequency distribution of respondents based on self-management of hypertension sufferers is in the sufficient category, namely 135 respondents (78.5%).

Table 2: Frequency distribution of self-management of hypertension in the working area of Ulee Kareng Public Health Center (N=164)

Self-Management	Frequency	Percentage
Good	17	10,4
Enough	135	82,3
Poor	12	7,3
Total	164	100

Medication Adherence

Based on Table 3 below, it shows that the frequency distribution of respondents based on adherence to taking medication is in the low category, namely 110 respondents (67.1%).

Table 3: Frequency distribution of levels of adherence to taking hypertension medication in the working area of Ulee Kareng Public Health Center

Medication Adherence	Frequency	Percentage
High	54	32,9
Low	110	67,1
Total	164	100

Bivariate analysis

Based on Table 4, it shows that respondents who were compliant with treatment were in the low category, most of the respondents had sufficient self-management, namely 135 respondents (82.3%). The relationship between self-management and the level of compliance with taking medication was obtained by a p value of .268 (<0.05), so it can be concluded that there is a relationship between self-management and the level of compliance with taking medication in elderly people with hypertension in the working area of Ulee Kareng Public Health Center.

Table 4: The relationship between self-management and the level of adherence to taking medication in elderly people with hypertension in the working area of Ulee Kareng Public Health Center (N=164)

Self-Management	Medication Adherence				p- value	
	High		Low		Total	
	f	%	f	%	f	%
Good	11	20,4	6	5,5	17	10,4
Enough	43	79,6	92	83,6	135	82,3
Not enough	0	0,0	12	10,9	12	7,3
Total	54	100	110	100	164	100

Discussion

Based on the research results, it was found that 164 self-management respondents for hypertension sufferers in the working area of Ulee Kareng Public Health Center, the majority were in enough category, namely 135 respondents (82.3%), 17 respondents (10.4%) were in a good category and only 12 respondents (7.3%) were in the poor category. Based on the research results, it was also found that the

majority of female respondents had better self-management than male respondents because women were more compliant with treatment and better at maintaining communication with health workers. It is in line with the results of research by Agastiya, Nurhesti, and Manangkot (2020) [1] which states that women have better self-management than men.

Another factor that can influence self-management is the length of time you suffer from hypertension. The majority of respondents were in the 2-5 year range, as many as 112 respondents (68.3%). It is in line with research by Nurfitasari, Handayani, and Asih (2023) states that someone who has suffered from hypertension for three years will know how to control hypertension when it recurs. The elderly will also stay away from things that can cause a recurrence of hypertension. These results are also in line with research by Agastiya, Nurhesti, and Manangkot (2020) [1], which found that most self-management was in the moderate or sufficient category, namely 34 respondents (55.5%). The results of this study are in line with research by Widayanti and Soleman (2023), which found that self-management among hypertension sufferers was in the sufficient category of as many as 39 respondents (41.9%). Based on the research results, 110 respondents (67.1%) were in the low category, and 54 respondents (32.9%) were in the high category. It shows that medication adherence for hypertension sufferers in the Ulee Kareng Community Health Center working area is in the low category. One of the factors that triggers low levels of medication adherence is stopping taking medication when you feel better. Based on the research results, it was found that the majority of elderly people chose to stop taking medication when they felt better, 66 respondents (40.2%). It is in line with research by Wahyuni, Kurniawan, and Hasanah (2023) state that the low level of medication adherence is influenced by the emergence of boredom from having to take medication every day and also that sufferers believe that when conditions improve they will no longer need to take medication.

Based on the results of the questionnaire, it was found that the lack of physical activity was 32.9% and the majority of respondents did not work at 61.6%. According to Nugroho *et al.* (2019), the majority of respondents with hypertension who do not work results in respondents rarely do activities and spend more time at home. Habits like this can be a trigger for hypertension.

It is also in line with research by Purnawinadi and Lintang (2020) [13] that compliance with taking hypertension medication is in a low category at 65.4%. It is also in line with research by Wahyudi, Ratnawati, and Made (2019) state that there is 35.8% adherence in the low category. It is also in line with research by Prasmana, Dianingati, and Saputri (2019) [12] which stated that 63.41% were in the low adherence category.

Based on the results of statistical tests, it was found that the p-value was 0.268. It shows that there is a relationship between self-management and the level of compliance with taking medication among the elderly in the Ulee Kareng Health Center working area. Based on Table 4, shows that 135 (82.3%) respondents have sufficient self-management. These results are also in line with research by Wulandari, Herliawati, and Rahmawati (2021), a significant relationship between self-care management and medication adherence at 44.1% because self-management is a cognitive strategy that aims to help sufferers change their behavior, bad behavior

and can foster better behavior. It is also in line with research by Rahmadhanti and Zuriyati (2020) ^[14] which showed results of 80.6% stating that self-management was related to medication adherence in hypertension sufferers.

Researchers think that the implementation of good self-management will have a positive impact on the level of compliance of hypertension sufferers with treatment according to medical recommendations. By actively involving themselves in self-care efforts, it is hoped that sufferers will not only be more compliant with the treatment plan but will also be able to develop appropriate skills necessary to control their blood pressure, maintain its stability, and effectively manage their overall health condition. Based on the medication adherence questionnaire, the majority of respondents said they often forgot to take medication, and this was by the finding that the elderly would stop taking medication if they felt better.

Conclusion

Research shows that self-management in the majority of hypertension sufferers is in the sufficient category at 78.5%, compliance with taking medication is in the low category at 67.1%, and there is a relationship between self-management and the level of compliance with taking medication in the elderly with hypertension in the work area of Banda Aceh Public Health Center.

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