

## Family Emotional Support With Elderly Compliance In Hypertension Management

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**Abstract.** Hypertension, often called the "silent killer," is a leading non-communicable disease contributing to high mortality and morbidity, particularly in the elderly. As individuals age, peripheral blood vessel elasticity decreases, increasing vascular resistance and leading to systolic hypertension, commonly seen in older adults. Hypertension requires long-term treatment, which can result in non-compliance among elderly patients. Family support plays a crucial role in assisting and encouraging adherence to treatment regimens. This quantitative correlation study, with a cross-sectional approach, aimed to examine the relationship between emotional family support and treatment compliance in elderly hypertensive patients. The study was conducted at the Sei Agul Health Center, with a sample size of 65 elderly individuals selected using the Slovin formula and purposive sampling technique in October 2023. The Morisky Medication Adherence Scale (MMAS-8) was used to measure treatment compliance, while the emotional support instrument was developed by the researcher. Data were analyzed using the chi-square test, showing a significant relationship between emotional family support and treatment compliance ( $p\text{-value} < 0.05$ ). The findings conclude that emotional support from family positively influences the compliance of elderly patients undergoing hypertension treatment at the Sei Agul Health Center. Health workers are encouraged to involve families in supporting hypertensive patients to enhance treatment outcomes.

**Keywords:** Hypertension, elderly, treatment compliance, family emotional support, non-communicable diseases

### 1. INTRODUCTION

Hypertension is one of the common diseases in the elderly which is often called a silent killer is one of the non-communicable diseases that causes mortality and morbidity. Uncontrolled hypertension can cause a 7 times greater chance of having a stroke, 6 times greater chance of having congestive heart disease, and 3 times greater chance of having a heart attack(Imelda et al., 2020). Hypertension is an important risk factor for neurological disease which is a major risk factor for chronic disease and death.(Suprayitno & Huzaimah, 2020).

High blood pressure (hypertension) occurs when the pressure in the blood vessels is too high (140/90 mmHg or higher). While in the elderly, hypertension is defined as systolic pressure above 160 mmHg and diastolic pressure above 90 mmHg. People with high blood pressure may not feel any symptoms. The only way to find out is with a physical examination. Some things that increase the risk of developing high blood pressure are older age, genetics, being overweight or obese, being physically inactive, a high-salt diet, drinking too much alcohol(Adam, 2019).

Elevated arterial blood pressure is considered a major vascular risk factor causing silent damage to cerebral vessels. This vascular brain injury may be a common core that causes cognitive (cognitive impairment, dementia, and Alzheimer's) and behavioral (late-life

depression) symptoms of hypertension-mediated target organ damage.(Vicario A & Cerezo GH, 2020)Increased systolic blood pressure (BP) is a very significant event in the elderly population, where it is estimated that more than 68% of the population suffers from hypertension.(C Sierra, 2017).

Hypertension cases increase with age. At the age of 25 to 44 years, the incidence of hypertension reaches 29%, at the age of 45 to 64 years it reaches 51%, and at the age of over 65 years it reaches 65%. The increasing incidence of high blood pressure results in the number of deaths and the risk of complications will increase every year. The cause of this condition is because hypertension is still very high in low-income areas and occurs in the elderly.(Pure & Rahutami, 2024).

The elderly are a vulnerable group and non-communicable diseases (NCDs) are clearly the main diseases in this age group. The type of hypertension that commonly attacks the elderly is Isolated Systolic Hypertension (ISH), where only the systolic pressure is high (above 140 mmHg), but the diastolic pressure remains normal (below 90 mmHg). The elderly often suffer from hypertension due to stiffness in the arteries so that blood pressure tends to increase.

Increasing age in the elderly causes a decrease in the elasticity of peripheral blood vessels which will increase peripheral blood vessel resistance which will ultimately increase the occurrence of systolic hypertension. Various physiological changes that occur in various organs of the body, especially the circulatory system, one of which is stiffness in the arteries so that blood pressure tends to increase, in addition, mental health such as the ability to think, for example remembering, begins to decline and affects the compliance of taking medication in the elderly compared to young people(Massa & Manafe, 2022).

Hypertension often does not cause symptoms, without realizing it, blood pressure continues to increase over a long period of time, causing complications. Therefore, hypertension needs to be detected early through regular blood pressure checks. Family support is very much needed by sufferers as someone who is sick really needs attention from the family(Haryadi, 2019). Family support plays a very important role, especially among the elderly, because the family is a support system that really needs the presence of family who can help them in their daily activities, for example in terms of reminding them to take their medication regularly and so on.(Nade & Rantung, 2020).

This disease is a chronic disease that requires long-term treatment or even lifelong. Hypertension treatment and the duration of complex treatment require high treatment costs. Long-term suffering, lack of knowledge about hypertension, levels of saturation and boredom

with ongoing therapy sometimes not infrequently elderly people become non-compliant in treatment(Prabasari, 2021).

Family support is a trait that supports and always provides help and assistance if needed by one of the family members. Family support affects compliance with taking medication for hypertension sufferers. Incomplete patient treatment is caused by the role of family members who do not fully accompany the sufferer, resulting in the hypertension disease recurrence. Compliance with treatment will increase when the sufferer gets help from the family(Widyaningrum et al., 2019).

Based on data obtained from the Sei Agul Health Center UPT, Medan City, North Sumatra, there were 214 out of 1,338 people suffering from hypertension in 2024. Interviews with 10 elderly people with hypertension had a history of eating habits that contained a lot of salt, less consumption of vegetables, and quite high meat consumption before suffering from hypertension, where patients and families considered that this was not detrimental to health, the above was the background to this study.

## **2. METHOD**

The type of quantitative correlation research with a cross-sectional approach. The purpose of this study was to describe the relationship between family emotional support and the compliance of the elderly undergoing hypertension treatment. The population in this study were all elderly patients with hypertension at the Sei Agul Health Center. By using the Slovin formula with a 5% error rate, 65 people were obtained to be the sample in this study. This study was conducted at the Sei Agul Health Center in October 2023. The sampling technique for researchers was a non-probability sampling technique, namely Purposive Sampling with inclusion criteria, namely elderly people who had been diagnosed with hypertension for at least 1 year or more; Elderly who live and settle with their families. The patient compliance instrument was taken from MMAS-8 (1986), regarding MMAS-8 Patient Compliance as many as 24 structured questions. While the emotional support instrument with a Likert scale consists of 15 statements developed by the researcher. The validity of the instrument was obtained *content validity index (CVI)* for the family support questionnaire, the value obtained was  $> r$  table ( $r$  count between 0.365 to 0.785) with a cronbach alpha value of 0.752 and compliance obtained a value  $> r$  table ( $r$  count between 0.483 to 0.866) with a cronbach alpha value of 0.761. The selected samples signed an agreement to become research subjects before data collection. This study has been approved by the Health Research Ethics Committee of

the University of North Sumatra. Data processing was carried out using SPSS software then statistical analysis with chi-square test.

### 3. RESULTS

**Table 1. Demographic Distribution of Respondents at Sei Agul Health Center UPT (n = 140)**

<b>Respondent Characteristics</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Age</b>		
60-74 Years	47	72.3
75-90 Years	18	27.7
<b>Gender</b>		
Man	36	55.4
Woman	29	44.6
<b>Level of education</b>		
No Formal Education	5	7.7
SD	10	15.4
JUNIOR HIGH SCHOOL	25	38.4
SENIOR HIGH SCHOOL	20	30.8
College	5	7.7
<b>Marital status</b>		
Marry	20	30.8
Widow/Widower	38	58.5
Divorce	7	10.8
<b>Family Type</b>		
Nuclear Family	29	44.6
Big family	36	55.4

In table 1 it can be seen that respondents with hypertension are mostly aged 60-74 years as many as 47 respondents (72.3%), male gender as many as 36 respondents (55.4%). Junior High School Education as many as 25 respondents (38.4%). Marital status is mostly widow/widower as many as 38 (58.5%) and family type is extended family as many as 36 respondents (55.4%).

**Table 2. Frequency Distribution of Emotional Support of Toba Batak Families at Sei Agul Health Center UPT (n = 140)**

<b>Family Emotional Support</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
Not enough	20	30.8
Enough	7	10.8
Good	38	58.5

In table 2 it can be seen from 65 respondents who suffer from hypertension that the family support given by the family to the elderly is mostly good emotional support as many as 38 respondents (58.5%).

**Table 3 Frequency distribution of Family Emotional Support with Treatment Compliance at Sei Agul Health Center UPT (n = 140)**

Emotional Support	Medication Compliance Categories						P Value
	Not obey		Obedient		Total	%	
	F	%	f	%			
Not enough	14	21.6	6	9.2	20	30.8	0.012
Enough	4	6.2	3	4.6	7	10.8	
Good	5	7.6	33	50.8	38	58.5	
Total	23	35.4	42	64.6	65	100.0	

In table 3 it can be seen the relationship between emotional family support and treatment compliance at the Sei Agul Health Center UPT, it was found that emotional support was good with those who were compliant with the treatment program as many as 33 respondents (50.8%) and those who were not compliant with less emotional support as many as 14 respondents (21.6%). The results of the Chi-Square statistical test obtained a p value  $<0.05$ ), then this shows that there is a relationship between emotional family support and treatment compliance in the elderly at the Sei Agul Health Center UPT.

#### 4. DISCUSSION

The results of the study showed that emotional support is good with those who comply with the treatment program as many as 33 respondents (50.8%) and those who do not comply with less emotional support as many as 14 respondents (21.6%). The results of the Chi-Square statistical test obtained a p value  $<0.05$ ), then this shows that there is a relationship between emotional family support and treatment compliance in the elderly at the Sei Agul Health Center UPT.

The results of this study are in line with the descriptive correlation study by Latipah et al. (2020) which aims to determine the relationship between family emotional support and adherence to hypertension treatment in the elderly at the Cipondoh Health Center, Tangerang City. The sampling technique used the purposive sampling method. 105 samples were determined and the data were analyzed using the chi square test. The results of this study indicate that there is a significant relationship between family emotional support and adherence to treatment with a p value =  $<0.05$ .

In line with the cross sectional study conducted by (Fitriyanti et al., 2022). The sampling technique used purposive sampling technique and obtained a sample of 61 hypertensive patients in the Internal Medicine polyclinic of a Private Hospital in Demak Regency. The data were analyzed using Spearman-Rank and obtained a p-value =  $<0.005$ ,

indicating a significant relationship between emotional support and blood pressure in hypertensive patients.

Family is a group of two or more people who live together with rules and emotional ties, each of whom has a role in it. Support from the family is the most important element in helping individuals solve problems, self-confidence will increase and motivation to face problems that occur will increase. Emotional support is the support that has the greatest influence on a person's compliance in an effort to improve their health.(Latipah et al., 2022).

Compliance comes from the root word obey, which means discipline and obedience. Sacket (in Niven, 2015), defines patient compliance as the extent to which patient behavior is in accordance with the provisions given by health workers. Factors that influence the level of compliance are age, gender, education, socioeconomic status. Factors that support patient compliance are education, accommodation, modification of environmental and social factors, changes in therapy models, increasing professional interaction between health workers and patients.

The family plays an important role in encouraging and strengthening patient behavior. Emotional support given by the family to patients with hypertension, such as the family asking how the patient feels when receiving treatment, the family caring about the patient's condition and the family always motivating the patient to always receive treatment regularly or check their blood pressure. Family support also has a role along with self-management in controlling chronic diseases.(Pamungkas et al., 2020). The type of emotional support involves the expression of empathy, caring for someone so as to provide a feeling of comfort, making the individual feel better. In this case, people who feel they have received this type of social support will feel relieved because they are cared for, receive advice or a pleasant impression on themselves.(Warjiman et al., 2022).

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