

INFLUENCE OF FAMILY SUPPORT ON THE IMPLEMENTATION OF HYPERTENSION MONITORING IN BANJARMASIN

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Abstract

Background: Hypertension is a preventable condition through appropriate management and monitoring of modifiable risk factors, including smoking habits, excessive salt consumption, alcohol intake, obesity, physical inactivity, and psychological stress. Effective hypertension control also requires active family involvement to support regular monitoring and adherence to recommended health behaviors. **Purpose:** This study aims to determine the relationship between family support and the process of monitoring hypertension in Banjarmasin in 2023. **Methods:** This study is a quantitative research with a cross-sectional design using a questionnaire for family support and an observation sheet to assess hypertension monitoring. The research period was from May 2023 to June 2023. There are 199 respondent that selected by purposive sampling. Data analysis was performed using the chi-square test at $\alpha = 0.05$. **Result:** The results of the Chi-square analysis test obtained the P value is 0.460, more significant than the value of 0.05, which means that that H_a is rejected and H_0 is accepted, where there is no relationship of family support for monitoring hypertension treatment. **Conclusion:** Although family involvement is frequently regarded as a supportive factor in hypertension management, the present study found no statistically significant association between family support and effective blood pressure control. This finding suggests that individual-level determinants such as health awareness, medication adherence, and lifestyle modification may play a more pivotal role in achieving optimal hypertension outcomes.

Keywords: Blood Pressure, Family Support, Hypertension

1. INTRODUCTION

Hypertension is one of the non-communicable diseases that often found in primary health services in South Kalimantan in 2023. Hypertension is a dangerous disease because it will burden the work of the heart causing arterioclerosis (shift in the artery wall). Hypertension is an increase in systolic blood pressure from 140 mmHg and diastolic more than 90 mmHg at two measurements with an interval of five minutes in a state of adequate rest [1].

Hypertension is a very important risk factor for cardiovascular disease. It is estimated to cause 4.5% of the global burden of disease, and its prevalence is almost as large in developing countries as in developed countries. Hypertension is a major risk factor for atherosclerotic cardiovascular disease, heart failure, stroke and kidney failure [1]. Based on the World Health Organization (WHO) non-communicable diseases (NCDs) are diseases that result in death which reaches 71% of the total 57 million deaths, most of which occur due to non-communicable diseases,

In Indonesia, the prevalence of hypertension continues to rise. Based on national data, 34.1% of adults were diagnosed with hypertension in 2018, with South Kalimantan reporting the highest provincial rate at 44.13% [2]. Local data from the Pekauman Health Center in Banjarmasin further highlights the burden of hypertension in the region. A total of 3,659 new cases were recorded in 2021, with women accounting for 2,053 cases and men 1,606. The majority of cases were found among individuals aged 45 and above, indicating a growing need for effective prevention and management strategies in the adult population [3].

According to the Indonesian Ministry of Health (2014) there are several risk factors that cause hypertension including lifestyle by the sufferer himself. A person's lifestyle is a factor that can trigger the occurrence of a disease, namely hypertension, the wrong lifestyle by people with hypertension, one of which is the habit of processing food consumed every day so that food is processed to meet and maintain their health. In the region of Kalimantan, especially Banjarmasin, the people rarely consumes green vegetables and have a smoking habits. They are also rarely exercise and consumes foods that are high in salt content and coconut milk vegetables. All these results are also supported by the results of the Riskesdas in 2018 which shows that South Kalimantan Province is the region with the highest percentage of less fruit and vegetable consumption [2].

In general, hypertension can be prevented by avoiding modifiable risk factors, namely smoking, consuming excessive salt, consuming saturated fat, used cooking oil, habitual consumption of alcoholic beverages, obesity, lack of physical activity, stress, and estrogen use. One of the efforts made in managing for hypertension requires family participation [4]. Family support will cause comfort, attention, appreciation or help people with an attitude of accepting their condition, where family support is obtained from individuals and groups.

According to Akbar [5], family support is a form of attitude, acceptance, and action from the family in accepting family members. The existence of family support has a profound effect on the well-being of its members who are always ready to support and provide help when needed so that family members feel cared for. There are 4 family supports: informational, rewarding, emotional, and instrumental support [6].

Family support is a form of attitude, acceptance, and action from the family in accepting family members. The existence of support has a profound effect on the welfare of its members who are always ready to support and provide relief assistance when needed so that family members feel cared for. (Patricia A.potter, 2005). People with hypertension, especially the elderly, really need help and attention from family [7].

The results of a preliminary study conducted on Saturday, November 5, 2022 at the Pekauman Health Center were interviews with 10 respondents with hypertension and their families who participated in providing information by giving questions, so that the results of the interview were found, that 7 respondents said that they did not conduct routine checks because of lack of awareness from sufferers and the lack of support provided by the family. The support needed in this case such as the family is also present in the treatment process undertaken such as in providing support in the form of strengthening, enthusiasm and always giving more time during the treatment process undertaken. An interview also conducted to one of the family members said that he did not have time to deliver his family members because he had a busy life and did not live in the same house so there was no opportunity, to take his

family members to do regular examinations so that sometimes they could only give drugs that were without doing examinations to health care centers.

Through interviews, there were 3 respondents who said that during their treatment, they were given full attention and were always escorted by their families to do examinations and treatment every month. Family members always remind to take medicine regularly. According to respondents, the attention from the closest person makes them feel happy and cared for in their treatment.

They say their reason for always taking care of their health is to see the smiles of happiness from their families. According to sources, people with hypertension say that the role of family is very important in the treatment process that is being undertaken at this time, because according to them the presence and care of family members is needed to be enthusiastic during treatment. According to respondents said that family support can provide enthusiasm in undergoing treatment that is carried out regularly, others said being reminded to take medicine alone already felt given more attention from family members, while there were also respondents who gave their opinions he said he only lived alone and lived far from his children so he felt lonely and uncared for made him feel no enthusiasm to undergo treatment. The respondent said he could only complain if he was sick and communicated by phone and family only suggested taking medication, while he said all he needed right now was to be noticed when he complained about how he felt because he thought all he needed was attention and support to undergo treatment.

Compliance of people with hypertension in doing hypertension treatment is needed for a better quality of life for people with hypertension. Therefore, they need a support and role of family members in monitoring the treatment carried out by one of their family members. So that during the treatment process that family members participate and are present as in the treatment process. Based on the background description above, researchers are interested in conducting research on the relationship between family support and the implementation of hypertension monitoring in Banjarmasin in 2023.

2. METHODOLOGY

This research is a quantitative research with cross sectional study. This study uses a correlational or relationship research methods. This study aims to determine the relationship between family support for hypertension monitoring in Banjarmasin in 2023. This research was carried out on February 17, 2023 - June 17, 2023 for 1 month at Pekauman, Banjarmasin.

The samples used in this study were hypertensive patients totaling 199 people determined by purposive sampling. One of the inclusion criteria that must be met is a hypertensive patient who has been on treatment for at least one year in the working area of the Pekauman Health Center in Banjarmasin City. The exclusion criteria set in this study are hypertensive patients who have chronic diseases or patients who have diseases other than hypertension such as stroke, kidney failure or coronary heart disease.

This study used a family support questionnaire that had been modified from standard instruments sourced from Nursalam [8]. Consists of 12 questions that have gone through previous valid and reliability tests. All question items have valid results with r count > 0.361 , while the Cronbach alpha value shows a value of 0.762 which means the reliability value is very high. The research data was then analyzed using the chi square test to see if there was a correlation between the two variables studied.

3. RESULTS

Respondents in this study are patients with hypertension who have respondent characteristics shown in the table as follows :

Table 1. Respondent Distribution

No	Characteristics Respondents	of	Frequency	Percentage
	Usia			
1	40 – 50 year		88	44,2 %
2	50 – 60 year		100	50,2 %
3	60 – 70 year		11	5,5 %
	Total			
	Gender			
1	Male		53	26,6%
2	Female		146	73,4%
	Total			
	Education			
1	Elementary school		84	42,2%
2	Junior Haigh School		88	44,2%
3	High School		26	13,1 %
4	Bachelor		1	5%
	Total			

Based on table 1 above, it shows that the majority of respondents with the age of 50-60 years amounted to 100 (50.2%) respondents while judging from the data above, the minority of respondents aged 40-50 years amounted to 88 (44.2%).

Based on the results of the population found to show that the age of 50-60 years is more and susceptible to hypertension. It can be seen that the majority of respondents who have hypertension are aged 50-60 years where this age is the middle age stage towards old age. The most common degenerative disease suffered by the elderly is high blood pressure or hypertension. In line with increasing age, the risk experienced by sufferers, especially elderly hypertension where the risk of hypertension increases, although hypertension can occur at any age, but most often found in old age, which is around 50 to 60 years (50.2%) high hypertension

As we age, caused by changes in the structure of large blood vessels so that blood vessels become narrower and the walls of blood vessels become stiff, as a result is an increase in systolic blood pressure. Where we can also link between old age who have not had much activity due to the weakness of the limbs to carry out activities as usual.

Based on table 1 also shows that the majority of respondents in this study were 146 (73.4) female respondents, while for the minority in this study were men totaling 53 (26.6%) respondents. Based on the population on data on hypertension sufferers in the Puskesmas area, it shows that there are more female genders than the male sex, this is due to the large number of visits that exist and those who carry out examinations, namely with the female gender suffering from hypertension.

Based on the data above that shows the majority of respondents with the female sex are more likely and suffer more from hypertension, this is because women who enter the elderly will enter menopause and experience a decrease in the hormone estrogen which is the main trigger of hypertension in women is seen from the American college of cardiology, this is seen from the hormone estrogen which turns out to have a vascular protective effect in women who experience premenopause. The function of estrogen is able to increase the production of antioxidants so as to

reduce stress and prevent inflammation in the body, therefore, lower estrogen levels after menopause can reduce these functions and increase the risk of hypertension. Management of hypertension can be done by modifying lifestyle which is very important to prevent high blood pressure. This is seen from the respondents who on average are female. Women have a fairly broad knowledge, and judging from the data obtained also because of the many visits and examinations carried out by respondents who are female.

Table 1 also shows that the majority of respondents with junior high school education 88 (44.2%) respondents while for the type of education respondents consist of elementary school 84 (44.2%) respondents, high school 26 (13.1%) and for minority respondents are universities or bachelors where only 1 (5%) respondents. Based on the data obtained, it shows that junior high school education (SLTP).

The respondents found in this study were on average elementary and junior high school graduates. Only a few are high school graduates or college graduates. A person's that have a low education also results in low knowledge. On the other side, the higher and better one's education will be make a higher and wider the insight and knowledge possessed. The level of education can affect the absorption of information - information that has been given [10].

Based on the data obtained, most respondents has a low knowledge of hypertension, this making the handling and prevention of hypertension very difficult to apply in everyday life. All of these things can be seen from the lifestyle and lack of desire to do routine check-ups at health care centers, even though they are located close to homes or settlements, lack of awareness and desire to do examinations make it difficult to control hypertension itself.

A person's with knowledge and education are also very influential on how he does a lifestyle so that he can maintain his diet and carry out other daily activities. the importance of education is also for someone to find information related to the disease he suffers. The majority of respondents' jobs in this study are private jobs such as trading, and being factory workers. Meanwhile, judging from the data above, the jobs that are a minority are civil servants (PNS). The importance of one's employment history is a factor that can influence one's knowledge as well as one's insight to knowledge.

Work history is one of the important factors in knowledge of a person's health in terms of the type of work that often interacts with others, there will be more knowledge when compared to people who rarely interact or have social relations with others.

Univariate analysis in this study is family support and hypertension monitoring as follows:

Tabel 2. Univariat Family Support

No	Family support categories	Frequency	Percentage
1	Very Good	0	0 %
2	Good	59	30 %
3	Enough	96	49 %
4	Less	44	23 %
5	Very unkind	0	0%
Total		199	1000%

The results of the study obtained by the researchers in table 2 obtained results with a good family category, namely 59 people (30%). The most family support in this case is in the form of instrumental support and information support where respondents say they get quite a lot of information about health when doing treatment, both from health services, doctors, and families who take in providing information about the treatment undertaken. In addition, instrumental support is also provided by families in the form of costs for treatment and help when respondents undergo treatment.

Tabel 3. Hasil univariat monitoring hipertensi

No	Hypertension Monitoring categories	Frequency	Percentage
1	Very Good	130	65,3 %
2	Good	45	22,6 %
3	Enough	24	12,1 %
4	Bad	0	0 %
5	Very unkind	0	0 %
Total		199	100%

Based on table 3 obtained from observations made by researchers, namely reporting that the results obtained have a good monitoring category, which has a percentage of 60-80% which consists of 130 people with a presentation of 65.3%, for the poor monitoring category of 21% - 40%, based on the results obtained consisting of 45 people with a percentage (22.6%) categorized as having low monitoring. The results obtained are the results of observations made by researchers about treatment control carried out by people with hypertension including routine blood pressure control every month, adherence to taking medication according to a doctor's prescription, and monitoring diet at home.

From the results of observations made by researchers to see hypertension monitoring carried out by respondents that results were obtained namely the number of respondents who did not carry out routine controls and carried out health checks so that the blood pressure of the patient himself was not controlled. From the interview, was found that respondents said it was rare to do a medical check-up because of the distance and reluctant to queue at the health service center, respondents also said they only came if the pain experienced could not be bearable.

Bivariate analysis in study ii was carried out on two variables, namely family support (independent variable) and hypertension monitoring (dependent variable), which are as follows:

Table 4. Cross-table of relationships between family support and hypertension monitoring compliance.

Family Support	Hypertension Monitoring Compliance					Total
	Very unkind	Bad	Enough	Good	Very Good	
Very Good	0	0	0	0	0	0

Good	0	0	6 (13%)	13 (21%)	40 (66%)	59 (30%)
Enough	0	0	11 (18%)	26 (43%)	59 (49%)	96 (49%)
Less	0	0	7 (14%)	6 (13%)	31 (38%)	44 (23%)
Very unkind	0	0	0	0	0	0
Total			24 (12%)	45 (22%)	130 (65%)	199 (100%)
Chi-square = 0,460 ; Sig. 0,05 ($\alpha = 0,05$)						

The results of table 4 show that the results of the Chi square analysis test obtained the following values, namely P value 0.460. Where the value is higher than the value of 0.05 which means that H_a is rejected and H_0 is accepted. There is no relationship between a family support to hypertension monitoring compliance in the work area of the Pekauman Banjarmasin Health Center. Family support is a process of relationship between the family in the environment and socially. There are three interactional dimensions of family support that have reciprocal (the nature and frequency of reciprocal advice or feedback). Quality or quantity of communication and emotional engagement that includes familiarity and trust in social relationships [11].

The results of research stated that there is a relationship between family support for the incidence of hypertension besides that in the results of his research also stated that family support includes instrumental support, information support, appreciation support, and emotional support. has a significant influence on the implementation of a hypertensive diet [12]. So through this study it can be concluded that family support has a role and efforts to achieve successful blood pressure control in hypertension. While family support is often assumed to play a vital role in chronic disease management, several possible confounding factors and sources of bias may have influenced the observed outcomes in this study.

Age was a major demographic factor in this sample, with the majority of respondents aged between 50–60 years. This age group is physiologically more susceptible to hypertension due to arterial stiffness and reduced vascular elasticity, which naturally occurs with aging. Furthermore, cognitive decline associated with aging, such as forgetfulness, may reduce compliance with treatment regimens and routine check-ups, regardless of family involvement. Thus, age may act as a confounding variable that diminishes the apparent effect of family support on health behaviors. Gender distribution also showed a predominance of female respondents. Post-menopausal women are at increased risk of hypertension due to a drop in estrogen levels, which are known to have vascular protective effects. In addition, women often assume multiple roles within the household and informal work sectors, potentially leading to increased stress and limited time for self-care. These factors may contribute more strongly to blood pressure management than family support alone.

Another important consideration is the level of education among respondents. The majority of participants were elementary and junior high school graduates, suggesting limited access to health-related knowledge. Inadequate understanding of hypertension and its management may hinder patients' ability to benefit from support provided by family members. Additionally, individuals with lower education levels may have difficulty interpreting or acting upon the information and reminders offered by their families, rendering the support less effective.

This study may also be subject to participation and social desirability bias. Data collection was limited to individuals who sought care at the health center, potentially excluding patients with poor access or awareness of services. Respondents may also have overstated the level of support they received or compliance they maintained due to perceived social expectations. Socioeconomic and occupational factors could contribute to the lack of significant findings. Most respondents were employed in informal

sectors, such as trading or factory work, with limited flexibility to attend regular health checks. Economic limitations and time constraints may override the influence of family encouragement, especially when patients prioritize daily income over routine care. Despite the lack of significant association in this study, previous research provides mixed evidence. Emotional and instrumental family support exists, it does not always translate into improved hypertension management without adequate individual motivation and knowledge [13].

These findings suggest that family support may not function independently in improving treatment compliance. Rather, it must be integrated with patient empowerment strategies, health education, and systemic support to enhance its effectiveness. The complexity of hypertension management, particularly in older adults with comorbid socioeconomic and cognitive challenges, requires a multifaceted approach.

4. CONCLUSIONS

The highest family support was family support with a good category, amounting to 59 people (30%), where the results obtained the most support were in the form of instrumental support and information support where respondents said they received information from various parties both medically and through social media they had. Hypertension monitoring data itself also shows the highest number is in the very good monitoring category where results were obtained amounting to 130 (65.3%) respondents, namely with observation results where respondents carried out routine treatment control at each health service center.

The results of the Chi square analysis test obtained the following values, namely P value 0.460 greater than the value of 0.05 which means that H_a is rejected and H_0 is accepted where there is no relationship of family support for monitoring hypertension treatment. Where viewed from the test criteria of Bivariate analysis is if the value of sig (p-value).

Although family support is widely considered beneficial, this study highlights the need to evaluate its impact within the context of individual, social, and environmental factors. Further research incorporating health education, structured family-based interventions, and longitudinal monitoring is recommended to explore the dynamic relationship between family roles and hypertension outcomes more comprehensively.

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