

## Conference Paper

# The Association Between Family Supports and Middle Adult Hypertension Prevention Behavior

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## Abstract.

One of the leading causes of death worldwide is hypertension. Indonesia still has a very low level of hypertension prevention awareness. Support from the family can help people prevent hypertension. Family support is a type of interpersonal interaction that involves accepting family members and having positive views toward them, so that they feel cared for. An action taken to avoid hypertension is called a hypertension preventative habit. This study aims to examine how family support and hypertension prevention behavior relate to one another in middle adulthood in the Baros ward, which is the service area for the Baros Public Health Center in Sukabumi City. This study has a cross-sectional design and is a correlational investigation. Cluster random sampling was used to collect data from 116 respondents in 8 hamlets in the Baros district. Collecting data using a questionnaire and bivariate analysis with Chi-square. The results of this study were 88 (75, 9%) respondents were known to have family support and as many as 67 respondents (76,1%) had good behavior in preventing hypertension. The results of Chi-square test showed p-value = 0.000 (< 0.05) indicating a connection between family support and hypertension prevention behavior in middle adulthood and it is hoped that this research will be an input for improving outreach programs about the importance of family support for hypertension prevention behavior.

**Keywords:** family support, behavior, hypertension

## 1. Introduction

In the world, hypertension is a serious health issue since it increases the chance of developing cardiovascular disorders such heart attacks, heart failure, strokes, and renal disease. In 2016, ischemic heart disease and stroke were the two leading causes of death. [1]. To attain the maximum degree of public health, health development aims to increase everyone's awareness, willingness, and capacity to live healthfully, so that the creation of an Indonesian society whose population lives with healthy behavior

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Published 4 August 2023

Publishing services provided by  
Knowledge E

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Selection and Peer-review under the responsibility of the ICHSE Conference Committee.

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has the ability to reach quality health services fairly and equitably and has the highest health status. One of these efforts is tackling non-communicable diseases, namely hypertension, diabetes, obesity, cancer and mental disorders [2]

Hypertension is one of the most common cardiovascular diseases, according to WHO data, about of persons, 26.4% worldwide suffer from hypertension. In 2025, this percentage is predicted to rise to 29.2%. 333 million of the 972 million persons with hypertension live in industrialized nations, and the remaining 639 million do so in developing nations, including Indonesia [3]. Hypertension has increased from year to year. One in four adults worldwide, or up to 1 billion people, have hypertension. Hypertension will increase to 1.6 billion by 2025. Hypertension attacks more in middle-aged people with the age group 40-64 year. Chronically elevated blood pressure in the blood arteries is known as hypertension. This may occur as a result of the heart's exertions in pumping blood to supply the body with nutrients and oxygen. If left untreated, this condition may affect the functionality of other organs, particularly crucial ones like the heart and kidneys in [4].

An increase in hypertension sufferers in middle adulthood will result in the need for efforts to reduce the morbidity of hypertension. Efforts made by the government to overcome these problems are by organizing an Integrated Service Post for adults. The activities of the Integrated Service Post for middle adulthood include taking blood pressure measurements regularly. After knowing their blood pressure, it is hoped that they can be better in control their hypertension. [4].

Health behavior factors are important in preventing hypertension. Health behavior factors include personal factors and situational factors. Personal factors include biological factors and socio-psychological factors, while situational factors include ecological factors, home environment, temporal (atmosphere), technology and socio-culture [5]. According to Aditama, prevention of hypertension should begin with increasing public awareness and changing lifestyle life towards a healthier direction [6]

Many factors can affect compliance or even a person's activity in controlling the disease he is suffering from, among these factors is the level of patient understanding of the significance of examination or treatment for healing and health. A person's attitude can also be a reinforcing factor in carrying out the treatment process that is being faced, where the more positive and strong the attitude, the more motivated the patient will be to get cured. Likewise with family support, this factor could be one of the strongest

factors in encouraging patients to be active in carrying out disease control at health facilities [7]

In Indonesia, awareness to prevent hypertension, recurrence and complications of hypertension is still very low. Low family awareness to check their blood pressure regularly and having poor eating habits and inactivity are triggers for an increase in hypertension cases in [8]. Families play a significant role in both therapy and prevention for hypertension patients, serving as their primary source of support [8]. Family support is a type of service behavior that families engage in. This service behavior can take the form of emotional support (attention and affection), appreciation support (appreciating and providing positive feedback), informational support (suggestions, advice, information), and instrumental support (assistance of energy, money, and time) [8].

Providing comfort, attention, appreciation, and assistance, as well as offering services with an attitude of acceptance of their condition, are all ways that society can assist family members in taking care of and improving their health state [9]. A person's behavior is a series of acts or responses that become ingrained in them as a result of a value they hold dear. Behavior is a set of actions or actions of a person in responding to something then made a habit because of the value that is believed. One form of behavior to control hypertension is to carry out comprehensive management both pharmacologically and non-pharmacologically. Hypertension control behavior in the elderly can be done with non-pharmacological methods including weight loss, low salt and low fat diet, routine blood pressure control and smoking cessation. Improper management of hypertension can cause complications, especially in vulnerable groups such as the elderly. Families have a significant impact on how individuals view and value their health, as well as which health programs they will embrace. Additionally, families offer assistance and make choices on the care of ill members of the family [10].

## 2. Research Method

A scientific method of collecting data with a clear goal and use is research design. This study is analytical with a cross sectional approach, which is a study that approaches, observes, or gathers data all at once (point time approach), meaning that each research subject is only observed once. This study examines the dynamics of the correlation between phenomena or between risk factors and effect factors only and measurements were taken on a single person or object. variable during examination [11]. The purpose of

this study is to ascertain how middle experts in treating hypertension in Baros Sukabumi behave in connection to family support. A questionnaire was employed as the research tool. The questionnaire in this research consisted of demographic data, family assistance questionnaires and how senior citizens manage their hypertension. Demographic data related to the identity of the respondents in the form of the respondent's age, gender, level of education, and profession.

The survey about family support contains 14 statement items which include informational, appraisal/reward, instrumental and emotional support. The instrument in this study was measured using a Likert scale with alternative answers: Always: 4, Often: 3, Sometimes: 2, Never: 1. The questionnaire about the actions of the elderly in managing their hypertension consists of 11 statement items using a Likert scale with alternatives: Always :4, Often: 3, Sometimes: 2, Never:1. According to [12] Family support is a type of support that is given to family members who have health issues by providing family support including maintenance, emotional and psychosocial in order to promote family members' welfare. Family support is divided into 2, namely: good (score 56) and poor (score 56) score less than 56). Hypertension control behavior is an effort made by the elderly in controlling their hypertension. According to [13] the category of behavior of the elderly in controlling hypertension is divided into two categories, namely: better (score of 36) and worse (score of 36). Before the questionnaire was used, the researchers tested the validity and reliability of 10 respondents in Baros.

Preparation of data collection has been carried out through an administrative process by obtaining permission from the head of STIKes Sukabumi getting a cover letter submitted to the Head of the Baros Health Center. research to be carried out. Next, the researcher and two enumerators met with the respondents and introduced themselves, explained the aims and objectives of the research and asked the respondents to sign a letter of consent to become respondents. Furthermore, the researchers conducted guided interviews about questionnaire questions to respondents who were willing to participate when this research took place. After completing the interview, the researcher terminated the respondent and reported to the head of the Baros Public Health Center to obtain a statement that the research had been completed.

Data processing uses data entry (entry), data entering (entry), data cleansing, and data checking (editing) data compilation (tabulating). Univariate analysis is an analysis used on a variable with the aim of knowing/identifying the characteristics of the To ascertain the link between two variables that are deemed to be connected, research

variables and bivariate data analysis are used, namely the relationship between the behavior and familial support of the elderly in maintaining blood pressure which was analyzed by means of the chi square technique with a value of = 0.05

This research is a correlational study with a cross sectional design. The study included 116 participants in 8 RWs drawn from the Baros ward and collected using cluster random sampling. The research tool made use of Likert scale variables of family support and hypertension prevention behavior. Data processing using cross tabulation (crosstab).

### 3. Results

Description results of the respondent characteristics were carried out using the frequency distribution and the percentage of each category presented in tabular form. The complete descriptive analysis of the respondents characteristics as follows:

TABLE 1: Description of Respondents Characteristics.

No	Characteristics of Respondents	f
1	<b>Age ( Y)</b>	
	40-44	35
	45-49	28
	50-54 55-60	37 16
2	<b>Gender</b>	
	Male	46
	Female	70
3	<b>Education</b>	
	Elementary School	26
	Junior High School	29
	Senior High School	42
	University	19

Based on Table 1, it can be seen that 37 respondents (31.9%) are between the ages of 50 and 54, 70 respondents (60.3%) are female, and 42 respondents (36.2%) have at least a high school diploma.

### 4. Univariate Analysis

Based on Table 2 reveals that the majority of respondents have supportive family support as many as 88 people (75. 9%), and those who do not support as many as 28 people (24.1%), demonstrates that most respondents had positive behavior as much

TABLE 2: Results of Univariate Analysis of Family Support in Middle adulthood and Univariate Analysis Results Hypertension Prevention Behavior in Middle Adulthood.

No	Category	f
1	Support	88
2	Not Support	28
3	Good	75
4	Moderate	19
5	Less	22

as 75 people (64%), less as many as 22 people (19.0%), and a small portion Enough as many as 19 people (16.4%)

Family Support	Hypertension Prevention Behavior						Total
	Good	%	Moderate	%	Less	%	
Support	67	76,1	12	13,6	9	10,2	88
Not support	8	28,6	7	25,0	13	46,4	28
Total	75	64,7	19	16,4	22	19,0	116

Figure 1: Cross-tabulation Relationship between Family Support and Hypertension Prevention Behavior in Middle adulthood.

It is known from table 3 above that from a total of 88 out of 116 middle adulthood respondents, the majority have good hypertension prevention behavior with supportive family support, as many as 67 people (76.1%)

According to the cross tabulation’s findings, there is a connection between family support and behavior related to preventing hypertension. It is evident from the cross tabulation data that the majority of respondents have good hypertension prevention behavior with positive family support, as many as 67 people (76, 1%).

## 5. Discussion

## 5.1. Family Support in Baros Ward Baros Public Health Center's Active Zone Sukabumi City

One of my findings at that time was that a high level of education did not guarantee good hypertension prevention behavior, as well as family support that was not optimal because they thought that higher education did not need family support. According to table 2, it is known that most of the respondents provide supportive family support as many as 88 people (75, 9%). This happens because a person is not likely to satisfy his own psychological or physical requirements. People require social support, and one source is their family. [14].

Based on research that has been conducted on 116 respondents in Baros, it was found that respondents with good family support have good behavior in controlling hypertension as many as 67 respondents (76.1%) compared to respondents who have poor family support tend to behave less well in controlling hypertension as many as 13 respondents (46.4%). Family support is a type of help given by a family member to offer physical and emotional solace when a person experiences illness and family support is also a family acceptance of its members which is manifested in attitudes and actions [15]

Family support that occur only a few of these middle adults experienced support in the unsupportive category. This may be because of the family realizes that the client really needs the presence of the family. The family as people who live in the same house and close to the client is always ready to provide support in the form of information, appreciation, instrumental and emotional for the client. [16]. According to [12] Family support is all forms of positive behavior and attitudes given by the family to a sick family member, specifically to family members who have health issues.

According [17] the support that can be given to middle adults with hypertension can be in the form of informational support, assessment support, instrumental support and emotional support. If in practice ,If the four facets of family support are addressed, it will improve the management of hypertension. According to [18] family support can be one of the factors that will be very influential in determining the beliefs and health values of the elderly and can also determine treatment programs that can be accepted by middle adults in controlling hypertension.

According to [19], the existence of family support makes middle adults more comfortable and peaceful because they get attention and support from their families, causing

behavioral changes to be more confident in dealing with health problems, managing their illness well, minimizing physical limitations and willing to follow the advice given. by the family in the management of hypertension which is manifested by the behavior of controlling hypertension in a comprehensive manner on an ongoing basis. From In this study, it was discovered that family support had an impact was supportive. Family support is not influenced by factors of age, gender, education because these factors are not related to family support. According to Retnowati, high family form variables in the family can affect support. The form of a small family can provide less family support because of the small number of family members and the busyness of each family member, so that the family support provided will be low. On the other hand, the large family consists of many family members so that it can provide higher family support.

Family support is also influenced by cultural background. According to Winkelman, cultural background determines the level of health behavior and family health values, so that the presence of family support will increase. This is in line with research by [17], that the majority of respondents have supportive family support as many as 25 people or (53.2%). This is supported by the theory [20] in [21] which states that this happens because a person cannot fulfill his own psychological or physical requirements. People require social support, and families can provide it. Hypertension Prevention Behavior in Middle adulthood in Baros Ward Working Area of Baros Public Health Center Sukabumi City

Behavior is a set of individual processes/actions in responding to something that can be made a habit because of the values that are believed [22]. Hypertension control behavior in the elderly is applied with non-pharmacological management including weight loss, low salt and low fat diet, routine blood pressure control and smoking cessation carried out regularly.

Hypertension increases with age. Increasing age causes physiological changes in the body such as thickening of arterial walls due to a buildup of collagen substances so that blood vessels tighten and constrict and are influenced by body degeneration. This is in line with the theory of [23] the aging process where the occurrence of body degeneration at the age of > 60 years causes changes in the cardiovascular system, the mitral and aortic valves undergo sclerosis causing the arteries to lose their flexibility or suppleness, causing the blood vessels to gradually narrow, the myocardium becomes weak. stiff and slow in contractility, the Blood pressure monitors' sensitivity starts to



decline and the heart's pumping ability is higher triggering hypertension. Based on table 2 above, it is known that most respondents have good hypertension prevention behavior as many as 75 respondents (64.7%).

[24] efforts to realize good hypertension control behavior in middle adults is to increase family support. Families must work together so that people with hypertension are willing and able to control their blood pressure. In order to maintain their blood pressure and prevent problems, hypertension sufferers work harder when their families are supportive. The respondent's behavior is included in the good category. This is proven when they filled out the questionnaire; almost all respondents have carried out hypertension prevention behavior well by carrying out a positive lifestyle so that an effective lifestyle improvement is obtained.

According to the assumption of the researcher, the respondent's rest pattern is low so that the need for sleep is reduced and one of the effects of lack of sleep is cardiovascular disease, one of the cardiovascular diseases is high blood pressure or hypertension. Respondents must adjust the pattern of rest by sleeping during the day so that the body becomes fresh. Correct management of hypertension complications. Hypertension control behavior provides benefits in reducing and preventing the recurrence of hypertension, complications that occur due to hypertension can be reduced. Hypertension that is managed properly can maintain good health.

The behavior of the respondent is the attitude of the person concerned and the elderly population group. The behavior itself is grouped into: eating patterns, resting patterns, activity patterns and medication. However, from the results of the study, it was found that the pattern of rest had the lowest value in the behavior of the respondents. This is supported by the theory [25] that a rest pattern is something that must be done for people with hypertension. The pattern of rest that is most often done is the pattern of sleep /sleep quality. Sleep disturbances become more common and very disturbing with age. After the age of 40 years the body becomes more susceptible to disease, so often experience poor quality sleep. Sleep is a natural phenomenon; sleep is a necessity of human life. Sleep is a part of human life that has a large portion, on average almost a quarter to a third of the time is used to sleep.

Diet for controlling hypertension behavior is one of the controllable risk factors that can cause hypertension. Eating behavior in Indonesia, especially for the poor, is protein, fiber and vitamins, because carbohydrates are still a cheap source of energy. Some people eat food with portions that are much larger than they should be, and vice versa

[26]. Dietary factors that determine high blood pressure are excess body fat, high salt intake and excessive alcohol consumption, while one of the risk factors that cannot be controlled is age. With age, systolic blood pressure usually decreases, but diastolic blood pressure generally increases.

Researchers assume, some respondents must pay attention to diet because hypertension is caused by a bad diet, such as eating too much salt and fat and consuming cigarettes, alcohol or caffeine. This research is supported by Kiki Melisa Andria (2013) that eating patterns can be interpreted as a system, a way of working or an effort to do something. Thus, a healthy eating pattern can be interpreted as a way or effort to carry out healthy eating activities.

The pattern of activity for people with hypertension must be considered. The activities carried out should not be too little or too much. Activity or exercise greatly affects the occurrence of hypertension where in people who are less active will tend to have a higher heart rate so that the heart muscle has to work harder with each contraction. The researcher assumes that the respondent must always take medication, such as three times a month for treatment according to a doctor's prescription with the help of his family and can seek treatment regularly. According to researchers, things related to lifestyle are behaviors that reflect a person's lifestyle. Middle adults with hypertension will have blood pressure control behavior. Control behavior is influenced by a number of variables, one of which is age.

Hypertension needs treatment, because it is very helpful in reducing complications that occur. Hypertension treatment is an action taken to prevent the occurrence of hypertension or to reduce the occurrence of recurrence in patients with hypertension by using non-pharmacological techniques. Hypertension treatment is very important in addition to pharmacological treatment. But this management must be done continuously to avoid increasing blood pressure [27]. Numerous elements can affect someone's conduct. Knowledge, attitudes, beliefs, values, and traditions make up the first element. Infrastructure and facilities are a second potential influence. The third element is circumstances that reinforce or strengthen the occurrence of a particular behavior. Another factor that influences hypertension prevention behavior is education. With education, where the higher a person's level of education, the wider his knowledge will be. This can be seen from table 2 which shows that most Middle adulthood with hypertension in Baros ward, Baros Public Health Center, Sukabumi City including 42 individuals (36.2%)

who have a high school diploma, and a tiny percentage with university education level, as many as 19 people (16.4 people. %). Most of the knowledge is

influenced by experience gained from oneself and from others; logically the incidence of hypertension tends to occur in people with low education due to ignorance of healthy lifestyles and behaviors, especially in hypertension prevention behavior. The higher a person's education the higher a person's ability to behave in maintaining a healthy lifestyle.

Research indicates that the findings of this study are also supported by references. it can be concluded that respondents with high education will easily behave in absorbing information and will have better knowledge than individuals with low education. Based on the study's findings, the researchers found that respondents who had higher education when filling out the questionnaire did not ask many questions and immediately understood and answered the questions by checking the answers in the questionnaire.

## **5.2. Relationship between Family Support and Hypertension Prevention Behavior in Middle adulthood**

The researcher's hypothesis is that family support is closely related to hypertension control behavior. The better the support provided by the family for controlling hypertension in middle age is implemented by reminding middle age to reduce salt consumption, diligently exercising and providing hypertension diet food, reminding re-control, providing medicine, reminding the elderly to be obedient to taking medicine and accompanying when going to services. Health makes middle age tend to behave better in controlling hypertension because someone pays attention so middle age feels valued, loved and accepted by their family. It should be underlined that the family tends to have a structure of strength and positive impact that is able to change the behavior of middle age so that they can behave well in controlling hypertension which can manifest in improving conditions and preventing complications of hypertension in the form of cardiovascular disease, stroke, kidney failure and even death. The debate above leads to the conclusion that the majority of middle age sufferers from hypertension in Baros have good family support with good middle age behavior in controlling hypertension as many as 67 people. With a p-value of 0.000, there is a substantial correlation between family support and senior people's actions in treating hypertension in Baros. Behave well in controlling hypertension compared to the elderly who have poor family support.

The results showed that out of 88 respondents whose families were supportive, most of them had hypertension prevention behavior in the Good category, as many as 67 people (76.1%). Based on the results of the research analysis above, the researcher believes that supportive family support is needed because it can motivate clients to behave well in preventing hypertension. The family support given by family members to clients is expected to help improve behavior and improve their health status. Based on bivariate analysis, Chi-square achieved P-value = 0.000, implying H1 is accepted if P-value 0.05, demonstrating a connection between family support and hypertension prevention behavior in middle adults in Baros ward, Baros Public Health Center Sukabumi city working area.

## 6. Conclusion

According to research done in May 2021 with a sample of 116 respondents regarding the relationship between family support and behavior in controlling hypertension, it can be said that: There is a significant relationship between family support and the behavior of the elderly in controlling hypertension in Baros with a p-value of 0.000, meaning that H1 is accepted, and this shows that there is a relationship between family support and hypertension prior.

## 7. Funding

This research was carried out independently

## Acknowledgement

We would like to thank the Head of the Sukabumi City Health Office, the Head of the Baros Health Center, the Head of STIKes Sukabumi and in particular the students who have participated and supported this research.

## Conflict of Interest

There are no disclosed conflicts of interest for the writers.

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