International Journal Of Health, Engineering And Technology (IJHET) *E-ISSN 2829 - 8683*
Volume 4, Number 5, January 2026, *Page. 2122 - 2135*
Email : editorijhess@gmail.com

The Relationship Of Family Support With Blood Pressure Control Behavior In Hypertensive Patients In The Working Area Of Uptd Puskesmas Kerambitan I

Putu Reymelda[1)], Ni Wayan Trisnadewi[2)], Ketut Lisnawati[3)]
[1,2,3)] Nursing Study Program, Faculty of Health Sciences, STIKES Wira Medika Bali

*Corresponding Author
Email : reymeldap@gmail.com

Abstract

Blood pressure control behavior is an effort made by people with hypertension to maintain blood pressure stability and prevent complications. The success of these behaviors is greatly influenced by family support, which plays a role in providing motivation and practical assistance in maintaining a healthy lifestyle consistently. This study aims to determine the relationship between family support and blood pressure control behavior in people with hypertension. The study used a correlational descriptive design with a cross sectional approach. The study population amounted to 1,435 hypertensive patients, with a sample of 94 respondents selected using purposive sampling techniques. Data collection used family support questionnaires and blood pressure control behavior questionnaires. Data analysis using the Spearman's Rho test. The results showed that the majority of respondents had good family support, namely 54 people (57.4%) and good blood pressure control behavior as many as 50 people (53.2%). The results showed a p-value of 0.000 (<0.05) and a correlation coefficient of 0.627, which means that there is a strong and significant relationship between family support and blood pressure control behavior. Family support has an important contribution in helping people with hypertension carry out optimal blood pressure control behaviors, because family involvement is an essential factor that increases the motivation, discipline, and ability of people with hypertension to maintain healthy living behaviors consistently.

Keywords: Family Support, Behavior, Hypertension.

INTRODUCTION

Behavior plays an important role in maintaining health status, one of which is through blood pressure control behaviors. Efforts to control blood pressure do not rely solely on adherence to pharmacological therapy, but also involve lifestyle modifications, such as limiting salt intake, increasing fruit and vegetable consumption, engaging in regular physical activity, stress management, and self-monitoring of blood pressure. The utilization of digital technology, such as blood pressure monitoring applications and telemedicine services, also supports real-time health monitoring and improves adherence to medical treatment. The main challenges in blood pressure control are low rates of early detection and long-term treatment adherence. Considering that hypertension is now experienced not only by older adults but also by individuals of productive age and even adolescents, this condition positions hypertension as one of the non-communicable diseases with a continuously increasing prevalence and demands comprehensive blood pressure control strategies to reduce its long-term impact.

Based on the World Health Organization (WHO) report in 2024, the global prevalence of hypertension reached 1.4 billion adults aged 30–79 years, or two out of three adults worldwide suffer from hypertension (WHO, 2024). The highest prevalence of hypertension was recorded in the African continent at 27%, followed by the Asian continent at 25%, while the Southeast Asia region had a prevalence of 25–36%, or approximately 170–245 million people with hypertension, with the largest contribution coming from highly populated countries such as Indonesia and Myanmar (WHO, 2024). The Indonesian Health Survey in 2023 reported that the prevalence of hypertension among the population aged ≥18 years was 30.8%. The three provinces with the highest prevalence were Central Kalimantan (40.7%), South Kalimantan (35.8%), and West Java (34.4%), while Bali Province ranked 31st with a prevalence of 22.8% (Kemenkes RI, 2024). Data from the Bali Provincial Health Office in 2024 showed that the prevalence of hypertension among residents aged ≥15 years was 49.78% in males and 50.22% in females (Dinkes Provinsi Bali, 2024). Tabanan Regency recorded the highest

prevalence of hypertension in Bali Province in 2024, at 33.3%, followed by Jembrana Regency at 17.23% and Buleleng Regency at 10.65% (Dinkes Provinsi Bali, 2024). In the working area of UPTD Puskesmas Kerambitan I in 2024, a total of 9,578 individuals with hypertension were recorded; however, only 19.2% of them received health services (Dinkes Kabupaten Tabanan, 2024).

Hypertension is a clinical condition influenced by various risk factors such as age, sex, genetics, excessive salt consumption, unhealthy dietary patterns, overweight, chronic stress, lack of physical activity, as well as alcohol consumption and smoking habits (Fiana & Indarjo, 2023). Hypertension is known as "the silent killer" because it is generally asymptomatic; however, if uncontrolled, it may cause symptoms such as headaches, dizziness, tinnitus, easy fatigue, visual disturbances, and palpitations. Chronic untreated hypertension increases the risk of stroke, heart failure, kidney failure, myocardial infarction, and other cardiovascular diseases (Kusuma & Ariwibowo, 2025). The management of hypertension includes pharmacological therapy with antihypertensive medications and non-pharmacological therapy through lifestyle modifications such as dietary regulation, physical activity, and stress management (Putra et al., 2024).

The government has implemented various hypertension control efforts through promotive, preventive, and curative programs focused on improving screening, education, and treatment adherence. The Chronic Disease Management aims to enhance hypertension management at primary healthcare facilities through medical consultations, health education, home visits, and *prolanis* exercise activities (Pakita et al., 2025). The Healthy Indonesia Program with a Family Approach (Program Indonesia Sehat dengan Pendekatan Keluarga/PIS-PK) emphasizes family-based blood pressure control through family empowerment and cadre training (Hartati et al., 2021). The Community Movement for a Healthy Life (Gerakan Masyarakat Hidup Sehat/GERMAS) contributes through blood pressure screening, health education, physical activity promotion, and the adoption of healthy lifestyles (Rahmadita et al., 2023). However, the implementation of government-led hypertension control programs still faces challenges, including low community participation and the persistence of individuals with hypertension who have not yet been reached by health services (Masithoh, 2024). The effectiveness of blood pressure control depends not only on government programs but also on individual factors and family support in adopting healthy lifestyles and adhering to treatment.

The family plays a crucial role in shaping individuals' health beliefs and values and in influencing the acceptance of treatment programs; therefore, family support is a key determinant of successful care for individuals with hypertension, as family members are the closest parties who interact directly with patients on a daily basis (Syah & Anies, 2023). Family support encompasses four main components: emotional support in the form of attention, motivation, and encouragement to reduce stress; instrumental support in the form of tangible assistance such as providing healthy meals and accompanying patients to follow-up visits; informational support through the provision of advice and health-related information; and appraisal support through positive feedback on patients' efforts to maintain their health (Putera et al., 2025). Family involvement in these aspects creates a supportive environment that encourages individuals with hypertension to adhere to therapy and adopt healthy lifestyles, which in turn contributes to blood pressure stabilization, disease management, improved quality of life, and the prevention of complications (Ajul et al., 2024).

A study by Salmid et al. (2024) demonstrated a significant relationship between family support and hypertension control behaviors, with informational support being the most dominant aspect, followed by instrumental, emotional, and appraisal support. Research by Sudarmi & Purwanti (2024) showed that respondents with family support tended to exhibit better hypertension control behaviors compared to those without family support. Ina & Setyoningrum (2023) reported that family support played a significant role in improving hypertension control practices among older adults. In addition, a study conducted by Maryani et al. (2024) also found a significant association between good family support and optimal hypertension control.

A preliminary study conducted at UPTD Puskesmas Kerambitan I on 31 July 2025 obtained data from the Non-Communicable Disease Program officer, particularly for hypertension, indicating an increase in the number of individuals with hypertension in the working area of UPTD Puskesmas Kerambitan I, from 1,370 people in April 2025, to 1,389 people in May 2025, 1,411 people in June 2025, and 1,435 people in July 2025. Medical record data from the community health center also showed a similar trend in the number of patients with hypertension who made visits over the last four months, namely 318 people in April 2025, 346 people in May 2025, 352 people in June 2025, and 368 people in July 2025. Hypertension control efforts implemented by Puskesmas Kerambitan I include Non-Communicable Disease (Penyakit Tidak Menular/PTM) screening activities integrated with mobile health center services, *prolanis*, *posbindu*, and *posyandu*; counseling and routine blood pressure examinations; home visits; and health education activities.

This study aims to determine the relationship between family support and blood pressure control behaviors among individuals with hypertension in the working area of UPTD Puskesmas Kerambitan I.

RESEARCH METHODS

This study is a quantitative study with a descriptive correlational design and employs a cross-sectional approach. The study was conducted in the working area of UPTD Puskesmas Kerambitan I, with data collection carried out over a two-week period, from 1 October to 13 October 2025. The population of this study consisted of individuals with hypertension in the working area of UPTD Puskesmas Kerambitan I in July 2025, totaling 1,435 people. The study sample comprised 94 respondents selected using a non-probability sampling technique with a purposive sampling method. The inclusion criteria were individuals with hypertension registered in the working area of UPTD Puskesmas Kerambitan I, aged ≥18 years, living in the same household with family members (parents, spouse, children, children-in-law, or grandchildren), able to read, write, and communicate effectively, and willing to participate as research respondents by signing an informed consent form.

The research instruments consisted of a family support questionnaire and a blood pressure control behavior questionnaire. Data were collected through the direct distribution of questionnaires to respondents, preceded by an explanation of the study objectives. The family support questionnaire was adopted from Hartawan (2023), with item validity values (r calculated) ranging from 0.419 to 0.885, which were greater than the r table value of 0.273, and a Cronbach's Alpha value of 0.947 ≥ 0.60. The blood pressure control behavior questionnaire was adopted from Rahman (2023), with item validity values (r calculated) ranging from 0.423 to 0.821, which were greater than the r table value of 0.278, and a Cronbach's Alpha value of 0.869. Data analysis in this study was conducted using univariate analysis and bivariate analysis with the Spearman's rho correlation test.

RESULTS AND DISCUSSION

Table 1. Frequency Distribution of Characteristics of Respondents with Hypertension in the Working Area of UPTD Puskesmas Kerambitan I

Respondent Characteristics	Frequency (f)	Percentage (%)
Age		
18-25 years	0	0
26-35 years	1	1.1
36-45 years	5	5.3
46-59 years	51	54.3
>60 years	37	39.4
Gender		
Male	34	36.2
Female	60	63.8
Marital Status		
Single	2	2.1
Married	67	71.3
Widower/Widow	25	26.6
Education		
No Education	1	1.1
Elementary School	21	22.3
Junior High School	11	11.7
Senior High School/Vocational	42	44.7
University	19	20.2
Occupation		
Housewife	11	11.7
Farmer/Agricultural	18	19.1
Trader	6	6.4
Military/Police	2	2.1
Civil Servant	6	6.4
Employee	9	9.6
Laborer	24	25.5
Retired	7	7.4
Others	11	11.7
Duration of Hypertension		
≤1 years	17	18.1
1-5 years	65	69.1
>5 years	12	12.8
Total	94	100

Based on Table 1, it can be observed that of the 94 respondents, the majority were in the 46–59 years age group, totaling 51 individuals (54.3%). Most respondents were female, accounting for 60 individuals (63.8%), were married, totaling 67 individuals (71.3%), had an education level of senior high school/vocational high school (SMA/SMK) with 42 individuals (44.7%), worked as laborers with 24 individuals (25.5%), and had been living with hypertension for 1–5 years, totaling 65 individuals (69.1%).

Table 2. Frequency Distribution of Family Support for Hypertension Patients in the Working Area of the Kerambitan I Community Health Center Technical Implementation Unit

Family Support Categories	Frequency (f)	Percentage (%)
Poor	4	4.3
Fair	36	38.3
Good	54	57.4
Total	94	100

Based on Table 2, it can be observed that of the 94 respondents, the majority received family support in the good category, totaling 54 individuals (57.4%).

Table 3. Frequency Distribution of Family Support Aspects in Hypertension Patients in the Working Area of the Kerambitan I Community Health Center Technical Implementation Unit

Aspect of Family Support	Frequency (f)	Precentage (%)
Emotional Support		
Poor	2	2.1
Fair	23	24.5
Good	69	73.4
Instrumental Support		
Poor	1	1.1
Fair	14	14.9
Good	79	84
Informational Support		
Poor	1	1.1
Fair	19	20.2
Good	74	78.7
Appraisal/Reward Support		
Poor	5	5.3
Fair	42	44.7
Good	47	50
Total	94	100

Based on Table 3, it can be observed that of the 94 respondents, 69 individuals (73.4%) had emotional support in the good category, 79 individuals (84%) had instrumental support in the good category, 74 individuals (78.7%) had informational support in the good category, and the majority had appraisal support in the good category, totaling 47 individuals (50%).

Table 4. Frequency Distribution of Blood Pressure Control Behavior in Hypertensive Patients in the Working Area of the Kerambitan I Community Health Center UPTD

Blood Pressure Control Behavior	Frekuensi (f)	Persentase (%)
Poor	6	6.4
Fair	38	40.4
Good	50	53.2
Total	**94**	**100**

Based on Table 4, it can be observed that of the 94 respondents, the majority had blood pressure control behaviors in the good category, totaling 50 individuals (53.2%).

Table 5. Frequency Distribution of Blood Pressure Control Behavior Among Hypertensive Patients in the Working Area of the Kerambitan I Community Health Center UPTD

Aspect of Blood Pressure Control Behavior	Frequency (f)	Precentage (%)
Medication Adherence		
Poor	0	0
Fair	12	12.8
Good	82	87.2
Dietary Pattern		
Poor	0	0
Fair	37	39.4
Good	57	60.6
Physical Activity		
Poor	0	0
Fair	17	18.1
Good	77	81.9
Stress Management		
Poor	0	0
Fair	19	20.2
Good	75	79.8
Blood Pressure Monitoring		
Poor	0	0
Fair	23	24.5
Good	71	75.5
Total	94	100

Based on Table 5, it can be observed that of the 94 respondents, the majority had good medication adherence, totaling 82 individuals (87.2%); good dietary patterns, totaling 57 individuals (60.6%); good physical activity, totaling 77 individuals (81.9%); good stress management, totaling 75 individuals (79.8%); and good blood pressure examination and monitoring practices, totaling 71 individuals (75.5%).

Table 6. Analysis of the Relationship Between Family Support and Blood Pressure Control Behavior in Hypertensive Patients in the Working Area of the Kerambitan I Community Health Center UPTD

Family Support	Blood Pressure Control Behavior						Total		*P-value*	*Coefisien Correlation*
	Poor		Fair		Good					
	f	%	f	%	f	%	f	%		
Poor	1	1.1	3	3.2	0	0	4	4.3	0.000	0.627
Fair	5	5.3	24	25.5	7	7.4	36	38.3		
Good	0	0	11	11.7	43	45.7	54	57.4		
Total	6	6.4	38	40.4	50	53.2	94	100		

Based on Table 6, it can be observed that of the 94 respondents, the majority had both good family support and good blood pressure control behaviors, totaling 43 respondents (45.7%). The Spearman's Rho test results showed a p-value of 0.000 (<0.05), indicating a significant relationship between family support and blood pressure control behaviors. The correlation coefficient was 0.627, indicating a strong relationship between family support and blood pressure control behaviors. The absence of a negative sign (–) before the correlation coefficient indicates a positive relationship, meaning that the better the family support, the better the blood pressure control behaviors.

Discussion

Based on the results of the study involving 94 respondents with hypertension in the working area of UPTD Puskesmas Kerambitan I, the majority of respondents had good family support, totaling 54 individuals (57.4%), while 36 individuals (38.3%) had moderate support, and 4 individuals (4.3%) had low support. The most dominant aspect of family support was instrumental support in the good category, totaling 79 individuals (84%), followed by informational support with 74 individuals (78.7%), emotional support with 69 individuals (73.4%), and appraisal support with 47 individuals (50%).

Family systems theory states that the family functions as an interconnected unit, so health problems in one member can affect the entire family system. Any change in a family member's health condition impacts roles, functions, and interaction patterns within the family, requiring the ability to adapt and provide appropriate support (Laila et al., 2024). In the context of hypertension, family involvement is essential to help patients maintain healthy behaviors and control blood pressure consistently. The family acts as a primary support system through the provision of emotional, informational, instrumental, and appraisal support, such as reminding patients to take medications, managing dietary patterns, encouraging physical activity, and providing motivation and attention (Dewi, 2021). According to Friedman et al. (2010), the family has a health care function, which includes recognizing health problems, making care decisions, and providing care and support to sick family members. Optimal family support can create a conducive environment for consistent blood pressure management.

Optimal family support is reflected in family involvement in assisting patients to adapt to lifestyle changes, such as providing healthy meals, accompanying them to healthcare facilities, and adjusting household activities to avoid excessive physical burden on the patient (Kii et al., 2021). Family involvement indirectly fosters positive habits in daily life and enhances the patient's ability to perform self-care consistently (Sulistiyani et al., 2025). The presence of family during the care process gives the patient a sense of being cared for, which can increase intrinsic motivation to adhere to therapy recommended by healthcare professionals. Conversely, patients with low family support tend to struggle in maintaining hypertension control behaviors (Oktaviani et al., 2021). Lack of reminders, attention to dietary management, and minimal accompaniment in health activities can reduce patient motivation, resulting in poor medication adherence and irregular blood pressure monitoring. Such conditions have the potential to worsen the patient's health status and increase the risk of long-term complications (Kii et al., 2021).

According to Friedman et al. (2010), family support is influenced by various factors such as age, education, and knowledge. Age plays an important role in shaping an individual's experience and needs in health management. Hypertensive patients aged >46 years generally enter the pre-elderly phase, which is characterized by a decline in physical and cognitive abilities, requiring attention and assistance from family in managing medication, dietary patterns, and daily activities (Yunandar et al., 2025). Research by Yani et al. (2025) indicated that the majority of hypertensive patients were aged 55–60 years, totaling 41 respondents (48.2%). Noverizah & Hartati (2024) also stated that hypertensive patients aged >45 years require family support to improve medication adherence and blood pressure control. The results of this study are in line with these findings, as the majority of respondents were aged 46–59 years, with 29 individuals (30.9%) receiving good family support.

Differences in the level of family support based on gender are influenced by social and cultural factors. Women tend to be more open in expressing their needs and health conditions, making it easier for them to receive family support, whereas men tend to be more reserved, resulting in more limited support. Family support plays a crucial role in improving medication adherence, the adoption of healthy lifestyle behaviors, and blood pressure control (Sudoyo et al., 2014). Yani et al. (2025) reported that the majority of hypertensive patients were female, totaling 50 individuals (58.8%). This aligns with Sawitri et al. (2022), who stated that women receive greater family support compared to

men. The results of this study also show that the majority of female respondents received good family support, totaling 34 individuals (36.2%).

Marital status plays an important role in the level of family support, as married individuals receive direct support from their spouses in the form of attention, supervision, and practical assistance, such as reminders to take medications, accompanying them to health check-ups, and helping maintain dietary and physical activity routines. This creates a more supportive environment and reduces stress. Safitri et al. (2023) reported that the majority of hypertensive patients were married, totaling 108 individuals (100%). Mukkaromah (2022) also stated that married hypertensive patients tend to receive greater family support, contributing to blood pressure stabilization. The results of this study are consistent, with the majority of respondents being married and receiving good family support, totaling 39 individuals (41.5%).

The results of this study are consistent with Safitri et al. (2023), who reported that the majority of respondents, totaling 77 individuals (71.3%), had good family support, with instrumental support being the most dominant aspect. Research by Marthasari et al. (2025) also showed that the majority of respondents, totaling 53 individuals (82.8%), had high family support. Fadila & Komala (2025) reported that the majority of respondents, totaling 53 individuals (61.6%), had good family support. This is further supported by Yani et al. (2025), who found that 80 respondents (94.1%) received good family support.

According to the researcher's assumption, the high proportion of respondents receiving good family support indicates that the family plays a very significant role as the primary support system in hypertension management. Instrumental support, as the most dominant form of support, reflects the active involvement of the family in providing tangible and practical assistance, such as accompanying patients to health facility visits, assisting with daily activities, providing care necessities, and ensuring medication availability. This form of support is the most directly felt and has an immediate impact on patient adherence to treatment. Emotional, informational, and appraisal support also play important roles in strengthening the patient's internal motivation, enhancing the sense of being cared for and valued, and fostering self-confidence in maintaining healthy lifestyle changes consistently. This condition reflects the optimal functioning of the family's health care role, in which the family is able to adapt to the condition of its members and create a conducive environment for sustainable care and disease management.

The researcher also suggests that variations in the level of family support are influenced by respondent characteristics, such as age, gender, and marital status. Respondents in the pre-elderly to early elderly age range tend to require more intensive support due to declines in physical and cognitive abilities, making family involvement increasingly essential. In addition, female respondents and those who are married tend to receive more optimal family support, which is likely influenced by more open communication patterns, the ability to express health needs, and the presence of a spouse as a primary source of support. Therefore, optimal family support is a crucial factor that not only assists in meeting daily care needs but also plays a role in enhancing motivation, treatment adherence, and maintaining the stability of hypertensive patients' health conditions in the long term.

The study conducted on 94 respondents with hypertension in the working area of UPTD Puskesmas Kerambitan I found that the majority had good blood pressure control behaviors, totaling 50 individuals (53.2%), with 38 individuals (40.4%) in the moderate category, and 6 individuals (6.4%) in the poor category. The most dominant aspect of blood pressure control behavior was medication adherence, with 82 individuals (87.2%), followed by physical activity with 77 individuals (81.9%), stress management with 75 individuals (79.8%), blood pressure examination and monitoring with 71 individuals (75.5%), and dietary patterns with 57 individuals (60.6%).

Lawrence Green's theory, as cited in Notoatmodjo (2014), explains that blood pressure control behavior is influenced by three interrelated factors: predisposing factors, enabling factors, and reinforcing factors. Predisposing factors include internal aspects such as knowledge, attitudes, beliefs, education level, and gender. Enabling factors relate to the availability of facilities and infrastructure

that support the implementation of health behaviors. Reinforcing factors are elements that provide encouragement or motivation to maintain consistent behavior, such as support from family or healthcare professionals. Good blood pressure control behavior is a crucial aspect in preventing complications, thereby helping hypertensive patients maintain quality of life. Consistency in implementing control behaviors allows for easier blood pressure regulation and minimizes the risk of target organ damage. Optimal implementation of control behaviors also contributes to improving functional capacity, maintaining physical and psychological stability, and promoting patient independence in managing their health. Blood pressure control behavior not only serves as a preventive measure against complications but also contributes to achieving a more productive, comfortable, and quality life for hypertensive patients (Saputra et al., 2025).

Blood pressure control behavior in hypertensive patients is strongly influenced by the extent to which the family is actively and continuously involved in daily care. Optimal family involvement plays a critical role in forming consistent healthy lifestyle habits, as the family is the closest environment interacting directly with the patient in daily activities (Rahmah, 2023). The family's role in providing attention, motivation, information about healthy lifestyles, preparing healthy meals, accompanying patients to health facilities, reminding medication schedules, monitoring blood pressure and treatment adherence, and creating a supportive home environment through practices such as healthy eating, reducing high-salt food consumption, and encouraging physical activity significantly contributes to optimal and sustainable blood pressure control (Dewi, 2021). Families help implement low-salt diets, promote healthier food choices, and encourage physical activity, creating an environment conducive to blood pressure stability. Family involvement not only increases adherence to therapy but also contributes to long-term success in preventing complications and improving the quality of life of hypertensive patients (Sudarmi & Purwanti, 2024).

Blood pressure control behavior is influenced by various factors, including education level. According to Notoatmodjo (2014), education plays a role in enhancing knowledge and an individual's ability to understand health information, thereby promoting behavior change. In hypertension management, good knowledge enables patients to implement low-salt diets, adhere to medication, and maintain a healthy lifestyle optimally (Patandianan et al., 2023). Yani et al. (2025) reported that the majority of respondents had a high school education, totaling 40 individuals (47.1%). This aligns with Muharany et al. (2023), who stated that higher education levels are associated with better blood pressure control behavior. The findings of this study also show that the majority of respondents with high school/vocational education had good blood pressure control behavior, totaling 23 individuals (42.5%).

Occupation affects blood pressure control behavior because the type and workload determine the time, energy, and individual capacity to maintain health (Notoatmodjo, 2014). Jobs with heavy physical demands and long working hours, such as laborers, can hinder adherence to diet, medication, and routine check-ups due to fatigue and stress. Sawitri et al. (2022) reported that the majority of respondents worked as laborers, totaling 39 individuals (60%). This aligns with Darwati et al. (2022), who stated that high physical workload and stress among laborers can reduce adherence to hypertension control. The findings of this study indicate that the majority of respondents working as laborers had good blood pressure control behavior, totaling 15 individuals (16%).

Based on the Health Belief Model (HBM), the duration of a person's illness can indirectly shape disease management behavior. Long-term experience with symptoms, treatment, and repeated health examinations makes patients more aware of the potential risks of complications. This awareness motivates them to better understand the importance of disease management, leading to greater adherence to medication, following medical advice, monitoring their health condition, and maintaining a lifestyle that supports recovery (Dahlina et al., 2022). Kusumadayanti et al. (2023) reported that the majority of respondents had suffered from hypertension for 1–5 years, totaling 22 individuals (68.8%). This aligns with Mukkaromah (2022), who stated that the duration of hypertension encourages patients to be more motivated in blood pressure control due to education,

family support, and experience with blood pressure fluctuations. The findings of this study are consistent, showing that the majority of respondents with 1–5 years of hypertension had good blood pressure control behavior, totaling 36 individuals (38.3%).

The results of this study are in line with Safitri et al. (2023), who reported that the majority of respondents had good blood pressure control behavior, totaling 81 individuals (75%). Similarly, Fadila & Komala (2025) reported that among 86 respondents, 53 individuals (61.6%) had good blood pressure control behavior. Yani et al. (2025) also found similar results, with 82 respondents (96.5%) demonstrating good blood pressure control behavior. Further, Yani et al. (2025) reported that 59 respondents (53.2%) had good blood pressure control behavior.

According to the researcher's assumption, blood pressure control behavior in hypertensive patients is formed through the interaction of various internal and external factors. The high proportion of respondents with good blood pressure control behavior indicates that most patients have sufficient awareness and ability to manage their health independently. The predominance of medication adherence reflects respondents' understanding of the importance of pharmacological therapy, supported by the active role of healthcare professionals in providing continuous health education and adequate access to healthcare services. However, the lower achievement in dietary behavior indicates that modifying diet, particularly increasing fruit and vegetable consumption and limiting sodium intake, remains a challenge influenced by family eating habits, individual preferences, and an unsupportive social environment.

The researcher also believes that family involvement plays a crucial role as a reinforcing factor in maintaining consistent blood pressure control behavior. The family's role in reminding patients to take medication, providing healthy meals, accompanying them to health check-ups, and offering emotional support contributes to increased motivation and adherence in long-term treatment. A supportive family environment allows healthy behaviors not only to be implemented by the patient but also to be formed as shared habits within the family.

Based on the cross-tabulation table, it is shown that respondents with low family support had blood pressure control behavior categorized as moderate for 3 individuals (3.2%) and poor for 1 individual (1.1%). Among respondents with moderate family support, the majority had blood pressure control behavior in the moderate category, totaling 24 individuals (25.5%), good category for 7 individuals (7.4%), and poor category for 5 individuals (5.3%). Respondents with good family support mostly had blood pressure control behavior in the moderate category, totaling 11 individuals (11.7%), and in the good category, totaling 43 individuals (45.7%).

The data analysis using Spearman's Rho correlation test showed a p-value of 0.000 ($p < 0.05$), indicating that H0 is rejected and H1 is accepted. This means there is a significant relationship between family support and blood pressure control behavior. The correlation coefficient of 0.627 indicates a strong relationship between family support and blood pressure control behavior. The positive direction of the relationship, as indicated by the absence of a negative sign (-) on the correlation coefficient, suggests that the better the family support received by hypertensive patients, the better their blood pressure control behavior.

Family is a system in which members interact and are interconnected, so the health condition of one member can affect the function and balance of the family system as a whole. Changes in health status impact family roles, functions, and patterns of interaction, requiring an adaptive process and appropriate support for the family member experiencing health problems (Ramadhani et al., 2024). According to Friedman et al. (2010), families have a health care function, which includes the ability to identify health problems, make decisions regarding care, and provide care and support to sick family members. This function plays a crucial role in the management of chronic diseases, including hypertension, because the care process requires ongoing family involvement and consistency in implementing health behaviors (Wulansari & Ismiriyam, 2024).

Family support is a critical factor influencing the development of health behaviors in patients with chronic diseases, including hypertension. The family acts as the primary support system, assisting

patients in adhering to long-term treatment. The support provided by the family—whether emotional, informational, instrumental, or in the form of appreciation—contributes to enhancing the patient's motivation and adherence to blood pressure management. Through such support, patients feel cared for, valued, and not alone in the treatment process, which encourages compliance with medical advice, adherence to a healthy diet, regular physical activity, and routine blood pressure monitoring (Halim et al., 2025). Family involvement in care can also reduce stress and anxiety levels in patients, which may influence blood pressure improvement. Additionally, family support helps shape patients' positive perceptions of their illness. Patients who receive good family support tend to have better understanding and attitudes toward the importance of blood pressure control, viewing hypertension as a condition that requires continuous management. This contributes to increased patient awareness and adherence to sustainable disease management (Hayati & Irianty, 2024).

According to Lawrence Green's theory, family support is categorized as a reinforcing factor that helps maintain and strengthen individual health behaviors. Thus, blood pressure control behavior is influenced not only by patients' knowledge and attitudes but also by support from the immediate social environment, especially family. This support is manifested through emotional, informational, instrumental, and appreciation-based assistance, which can enhance motivation, adherence, and consistency in following treatment and implementing blood pressure control behaviors (Notoatmodjo, 2014). Based on the Health Belief Model, family support also serves as a cue to action that can trigger and motivate hypertensive patients to engage in blood pressure control behaviors. Encouragement, supervision, and active family involvement can increase perceived benefits of treatment and blood pressure management while reducing perceived barriers to therapy. Hypertensive patients receiving adequate family support tend to have higher self-efficacy, promoting better adherence to medication and healthy lifestyle modifications (Dahlina et al., 2022).

Hypertensive patients who receive optimal family support tend to be more effective in implementing blood pressure control behaviors, as indicated by increased adherence to antihypertensive medication, adoption of a low-sodium diet, engagement in regular physical activity, and routine blood pressure monitoring (Ansar et al., 2024). Family support also plays a role in reducing stress and anxiety, which are significant risk factors for elevated blood pressure through neuroendocrine mechanisms (Izzah & Yudistira, 2024). Additionally, family support can enhance patients' confidence in managing hypertension, provide extra motivation to maintain healthy behaviors consistently, and facilitate access to necessary health resources and information. Conversely, limited or absent family support may result in poor adherence to therapeutic regimens, reduced capacity for stress management, and diminished motivation to sustain preventive behaviors, potentially hindering effective blood pressure control. This condition may also increase the risk of long-term hypertension complications, such as stroke, heart failure, or chronic kidney disease, as inconsistent blood pressure management fails to stabilize blood pressure effectively (Mukkaromah, 2022).

These findings are consistent with research by Safitri et al. (2023), which demonstrated a significant relationship between family support and blood pressure control behaviors in hypertensive patients, with a p-value of 0.000 (< 0.05). Similarly, Fadila & Komala (2025) reported a significant association between family support and blood pressure control behaviors in elderly patients, with a p-value of 0.000 (< 0.05). Wahyudi et al. (2023) also found a significant relationship between family support and hypertension control behaviors in the elderly (p-value = 0.000 < 0.05). Similar results were reported by Ina & Setyoningrum (2023), confirming that family involvement plays a crucial role in improving the consistency and effectiveness of blood pressure control behaviors.

Based on the analysis and discussion, the researcher assumes that family support plays a pivotal role in shaping and maintaining blood pressure control behaviors in hypertensive patients. The strong and positive relationship between family support and blood pressure control behavior indicates that the more optimal the support provided by the family, the better the patient's ability to consistently implement blood pressure control behaviors. Family support, in the form of instrumental, emotional,

informational, and appreciation-based assistance, has a direct impact on adherence to medication, healthy diet implementation, physical activity, stress management, and routine blood pressure monitoring. The presence of the family as the primary support system allows hypertensive patients to feel cared for and not face the treatment process alone, thereby enhancing motivation, commitment, and self-confidence in controlling blood pressure and reducing the risk of long-term complications.

The researcher also posits that family involvement acts as a reinforcing factor in maintaining consistency in blood pressure control behaviors through medication reminders, provision of healthy food, accompaniment during medical check-ups, and emotional support. Respondent characteristics, such as educational level, type of occupation, and duration of hypertension, also influence blood pressure control behaviors. Higher education facilitates understanding of health information, physically demanding or high-stress jobs may act as barriers, and prolonged experience with the disease increases awareness of the importance of blood pressure management. Therefore, effective blood pressure control behavior is the result of a synergy among knowledge, experience, family support, and adequate access to health services.

CONCLUSIONS

Based on the results of this study, it can be concluded that the majority of respondents received good family support, totaling 54 individuals (57.4%), and the majority of respondents demonstrated good blood pressure control behaviors, totaling 50 individuals (53.2%). Statistical analysis showed a p-value of 0.000 (<0.05) and a correlation coefficient of 0.627, indicating a significant, strong, and positive relationship between family support and blood pressure control behaviors among hypertensive patients in the working area of UPTD Puskesmas Kerambitan I.

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