

Family Support as Caregivers for Independent Management of Hypertension Patients: Literature Review

Kartika Setia Purdani¹, Muhammad Ridwan¹, Bunga Yusnanda¹, Yunisah Fitri¹,
Twy Kurmiantin¹, Lutfi Nur Amalia¹

¹Universitas Muhammadiyah Kalimantan Timur, Samarinda, Indonesia

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Corresponding Author :

Kartika Setia Purdani
E-mail: ksp680@umkt.ac.id

ABSTRACT

Background & Objective: Hypertension is a significant global health problem, and family support as caregivers can play a role in the self-management of hypertensive patients. This review aims to evaluate the effectiveness of family support in helping hypertensive patients. **Method:** This study used a literature review approach with descriptive analysis. Data were obtained from scientific articles published between 2022 and 2024 through the Google Scholar and PubMed databases. A total of 15 relevant articles were selected based on inclusion criteria. **Result:** Family support has been shown to be effective in improving patient compliance with hypertension treatment, controlling blood pressure, and improving quality of life. Non-pharmacological interventions such as family education and relaxation therapy have shown significant positive effects. **Conclusion:** Family support is an important factor in managing hypertension and should be integrated into health programs to improve hypertension management outcomes in the community.

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Introduction

Hypertension is a global health problem that affects nearly one-third of the adult population and is a major risk factor for cardiovascular disease and preventable premature death. Although effective and relatively inexpensive treatments are available, only a small proportion of people with hypertension are diagnosed, receive treatment, and achieve blood pressure control. Globally, the rates of awareness, diagnosis, and treatment of hypertension in adults are reported to be only around 46%, 42%, and 21%, respectively (Rao Guthi et al., 2024).

In lower-middle-income countries, including India, this challenge is even more pronounced. Cardiovascular disease accounts for nearly half of all deaths from noncommunicable diseases, with low diagnosis rates, limited follow-up, and low public awareness exacerbating the situation. Previous studies have shown that the prevalence of hypertension in India is quite high, but the proportion of patients who successfully go through the treatment cascade (screening, diagnosis awareness, treatment, and blood pressure control) is still low. Understanding the hypertension treatment cascade is important as an indicator of health system performance and a basis for formulating public health intervention policies (Rao Guthi et al., 2024).

Meanwhile, in developed countries such as the United States, even though effective hypertension therapy is available, only about half of patients are able to maintain blood pressure control. Hypertension management is generally carried out through face-to-face visits at primary care services, but patient compliance with medication and dose adjustments remains a challenge, especially among black patients who tend to have poorer clinical outcomes (Mehta et al., 2024).

In Indonesia, the role of the family as the primary support system is very prominent in the management of chronic diseases, including hypertension. The socio-cultural conditions of Indonesian society, which still uphold family values, make the family the front line in providing emotional, instrumental, and informational support. Research shows that family support in Indonesia contributes significantly to increasing the compliance of hypertensive patients in undergoing therapy, following a low-salt diet, and engaging in regular physical activity (Zuraidah et al., 2024; Susanto et al., 2024).

Furthermore, family involvement in the Family Self-Management Program (FSMP) in Indonesia has been proven effective in lowering systolic and diastolic blood pressure and increasing adherence to a low-sodium diet among rural hypertensive patients. This confirms that family-based strategies not only improve clinical outcomes but also strengthen community health literacy (Susanto et al., 2024). Thus, in the Indonesian context, family support is not merely a supporting factor but a key pillar in the successful self-management of hypertensive patients.

Advances in health technology present new opportunities in hypertension management. Interventions based on remote monitoring, the use of text messages, and social support from family or friends have been proposed as strategies to improve patient adherence. Social support is believed to strengthen patient accountability for treatment, while technology-based approaches can facilitate sustained patient engagement. However, evidence of the effectiveness of these combined interventions is still limited and requires further research (Mehta et al., 2024).

Thus, in both developing and developed countries, the main challenges in controlling hypertension remain similar, namely low rates of diagnosis, treatment adherence, and success in achieving blood pressure control. This underscores the need for comprehensive strategies that not only strengthen screening and access to health services but also integrate technological innovations and social support to improve the quality of hypertension management and reduce mortality from cardiovascular disease.

Objective

To identify family support as caregivers for independent management of hypertensive patients.

Method

The method used in writing this literature review involved a comprehensive strategy, including searching for articles in selected research journal databases, using relevant keywords, and applying specific inclusion criteria such as publication year (last 5 years), language, and availability of full text. The databases used for this search were Google Scholar and PubMed. For searching national articles (in Indonesian) and international articles (in English) on Google Scholar, the keywords used were Family, Prevention, Management, Hypertension. These articles were then filtered based on publication year (2024-2025). Further screening was conducted by analyzing the relevance of the topic, research objectives, methods used, research ethics, findings of each article, and limitations. Based on this process, a total of 13 articles were selected for the literature review.

Results

Author	Title	Methodology	Results
Proboningsih, Sriyono, Rini Ambarwati, Sri Hardi Wuryaningsih, dan Anita Joeliantina (Proboningsih et al., 2025)	Optimisation of the role of families of chronic hypertension patients based in the mcmaster model of family functioning in self-care agency	The research method used in this journal is Structural Equation Modeling - Partial Least Squares (SEM-PLS) as the analysis method.	The results of this study indicate that good family functioning, particularly in the dimensions of problem solving, communication, and behavior control, has a significant positive influence on the self-care agency of hypertensive patients. Although self-care practices such as adherence to medication and diet are still low, good family functioning can improve patients' self-care behavior. Analysis using SEM-PLS revealed that family functioning

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			explains approximately 11.6% of the variance in patient self-care (coefficient = 0.340, $p < 0.001$). The measurement instruments used were also proven to be valid and reliable. This study emphasizes the importance of family support in hypertension management and suggests interventions focused on improving family dynamics to improve patient self-care behavior.
Elias Ezo, Elias Nigusu, Bethelhem Birhanu, Getachew Ossabo, Wubishet Gezimu, Asnakech Zekiwos, Andinet Akililu, Taye Mezgebu, dan Sentayehu Admasu (Akililu et al., 2024)	Magnitude and severity of anxiety and risk factors among hypertensive patients attending public hospital in arba minch town ethiopia	The journal method used a survey approach with systematic random sampling of hypertensive patients who visited two public hospitals in the city for two months. Data were collected through interviews using a pretested questionnaire and trained data collectors. The data were then entered into Epi Data 3.1 and analyzed using SPSS version 25	The results of this study show that approximately 32.1% of hypertensive patients visiting public hospitals in Arba Minch experience anxiety, with approximately 20% of them experiencing moderate to severe anxiety. Factors significantly associated with anxiety include gender (women have a higher risk), blood pressure control

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		<p>with descriptive analysis and logistic regression to test the relationship between independent variables and anxiety. Multicollinearity and goodness of fit were also tested for model validation.</p>	<p>(controlled blood pressure acts as a protective factor), family history of hypertension, family history of mental disorders, history of hospitalization, low social support, and current alcohol use. This study emphasizes the importance of integrated interventions, including mental health support, blood pressure management, increased social support, and reduced alcohol consumption to reduce the burden of anxiety in hypertensive patients and improve treatment adherence.</p>
Yosefina D.G.P.Say, insi farisa desy arya, indah amelia (Say et al., 2024)	The implementasi of family centered care in hypertensive patients at private clinic	<p>This research method is qualitative research with a single case study approach conducted at Mitra Sehati Clinic in November 2022.</p>	<p>The results of this study indicate that the implementation of Family-Centered Care (FCC) in the management of hypertension at the Mitra Sehati Clinic is running well and has a significant positive impact.</p>
Aulia intan ramadhani, uki	Hubungan antara fungsi keluarga	The methodology used in this study	The results of the study show that

Author	Title	Methodology	Results
noviana, heru subekti (Ramadhani et al., 2024)	dan manajemen diri penderita hipertensi	is quantitative research with a correlational analytical type and cross-sectional design.	most hypertensive patients in the working area of the Mlati II Community Health Center have high self-management and healthy family functioning. Specifically, 50% of respondents have high self-management, and 52% have healthy family functioning. In addition, there is a significant relationship between family functioning and self-management in hypertensive patients, with a p-value of 0.001. Most respondents were aged 45-60 years (64%), and the results of the analysis show that those with healthy family functioning tend to have good self-management.
Zuraidah, Putri Nurfitafera, Lili Sartika (Zuraidah et al., 2024)	Hubungan Peran Keluarga Sebagai Caregiver dengan Pengontrolan Tekanan Darah pada Lansia Penderita Hipertensi di Wilayah Kerja Puskesmas Kute Siantan	Cross Sectional Study	The role of the family as caregivers can be an alternative in helping to control blood pressure in the elderly.

Author	Title	Methodology	Results
Maria Agustina Making, Yulianti K Banhae, Febtian C Nugroho, Israfil, Maria Lupita Nena Meo (Agustina Making et al., 2024)	Pengalaman Keluarga Sebagai Caregiver dalam Merawat Pasien Hipertensi Selama Masa Covid-19	Descriptive phenomenological design. A phenomenological approach was applied to explore the experiences of families as caregivers in caring for elderly people with hypertension at home during the Covid-19 pandemic.	These findings emphasize the importance of emotional support and ongoing education from healthcare workers and families to improve the effectiveness of care and the well-being of caregivers during the pandemic.
Ady Irawan AM, Widya Fransiska, Risky Ain Nur Rohmah, dan Adinda Laras Sri Karno Putri (Am et al., 2024)	Penerapan Terapi Musik Klasikal Beethoven Pada Ibu Hamil Hipertensi Di Wilayah Puskesmas Bestari Kecamatan Medan Petisah Tahun 2024	Community service by providing education aimed at enabling participants to understand and implement family support empowerment in the prevention and management of hypertension.	The involvement of families and stakeholders has proven to be important for the sustainability of the program, which ultimately improves the quality of life and health of the community in the Sukoharjo region.
Faisal Ibnu, Imam Zainuri, Rina Nur Hidayati, Indra Yulianti, dan Abdillah Fatkhul Wahab (Ibnu et al., 2024)	The Family Mentoring Model in Treating Hypertension	quasi-experimental design with a Non-Randomized Control Group Pre-test Post-test approach.	The family assistance model is effective in improving PENSIKU (knowledge, attitude, and behavior) of clients and families in overcoming hypertension.
Elistina Simanullang, Jessica Margaretha Simatupang, Septiana Sry	The Relationship between Family Support and Self-Care Behavior among	cross-sectional correlational design	The results showed that most respondents had moderate to good self-care behaviors

Author	Title	Methodology	Results
Rezeki Siregar, Elysabeth Sinulingga, dan Shinta Marina J.P. Sihaloho (Simanullang et al., 2025)	Individuals with Hypertension in a Community Health Center in Tangerang		and good family support. However, no significant relationship was found between family support and self-care behaviors in people with hypertension.
Keristina ajul, veronika yosefpa windahandayani, vincencius surani, lilik pranata (Ajul et al., 2024)	Dukungan keluarga terhadap kepatuhan gaya hidup sehat penderita hipertensi	This study used a descriptive correlational cross-sectional method and was conducted on 57 hypertensive patients in the Palembang Social Health Center working area.	The results showed that there was a significant relationship between family support and adherence to a healthy lifestyle among hypertensive patients, with a p-value of 0.001 and a positive direction of the relationship. Respondents who received adequate and good family support tended to be more compliant in practicing a healthy lifestyle, while those who received poor support tended to be noncompliant. Most respondents with adequate and good family support were in the compliant category, while those with poor support were mostly in the

Author	Title	Methodology	Results
Tahan, siti zahara nasution, farida linda sari siregar (Tahan et al., 2024)	Pengaruh edukasi keluarga terhadap pengetahuan keluarga dan kepatuhan penderita hipertensi	The research method used was quantitative with a pre-experimental design, a one-group pretest-posttest design approach.	noncompliant category. The results showed that family education significantly improved the knowledge of families and the compliance of hypertensive patients in carrying out treatment. Pretest and posttest data showed a significant increase in both variables, with a p-value < 0.000. Specifically, knowledge increased from a score of 46.16 to 51.23, and compliance increased from a score of 45.39 to 52.29. These findings are supported by statistical analysis showing a positive and significant effect of family education on both variables.
Dejian zeng, wai tong chien, and mingyan yang (Zeng et al., 2024)	Effectiveness of a patient-family carer partnership intervention on blood pressure control for people with hypertension in rural communities A	This research method involved randomly assigning participants to intervention and control groups, as well as collecting data through	The results of this study indicate that the family partnership intervention (PFPI) significantly improved blood pressure control,

Author	Title	Methodology	Results
	randomised controlled trial	interviews and blood pressure measurements at home for some time after the intervention. Data analysis was performed using the Generalized Estimating Equation (GEE) model to compare results between time periods and between groups, taking into account data that may have been randomly lost.	health-related quality of life, and psychological well-being in both hypertensive patients and their caregivers in rural China. Specifically, there was a significant decrease in systolic and diastolic blood pressure, an increase in the level of blood pressure control, and an improvement in family relationships and confidence in managing hypertension. Additionally, this intervention successfully reduced symptoms of anxiety and depression and improved overall quality of life scores. These results indicate that a family-based approach can provide significant clinical and psychosocial benefits in hypertension management in rural communities, with small to moderate effects.

Author	Title	Methodology	Results
Tantut Susanto (PHN, PhD), Sri hernawati (D.M.D), rismawan adi yunanto (RN, MN), Ira rahmawati (RN,MN), Niken asih laras ati (RN, MN), Wahyuni fauziah (RN, PhD) (Susanto et al., 2024)	Family self-manajemen program for hypertension management and sodium consumption adherence A parallel randomized control trial among family caregivers and people with hypertension	This research method included a randomized controlled trial design conducted at four community health centers in Jember, Indonesia. Participants were divided into intervention and control groups, with measurements taken at the beginning, after three months, and after six months. The instruments used included demographic questionnaires, primary measurements, and secondary measurements, and followed the CONSORT standards for reporting.	The results of this study indicate that the Family Self-Management Program (FSMP) is effective in improving blood pressure control and adherence to a low-sodium diet among rural populations in Indonesia. Significantly, the intervention group experienced a decrease in blood pressure (SBP and DBP), an increase in knowledge about sodium intake, and an increase in behavior and self-efficacy related to hypertension management. In addition, there was an increase in treatment adherence and healthy lifestyle behaviors supported by family support. These findings confirm that family-based hypertension management strategies can provide significant benefits in improving health outcomes and

Author	Title	Methodology	Results
			disease management in rural communities.

Discussion

Based on the analysis of several scientific journals, it can be concluded that family support has been proven to be an important protective factor in preventing hypertensive emergencies. Two sub-sections were identified, as follows:

1. Family Support through Education

The review indicates that education is one of the relevant methods of family support for patients with hypertension. A study by Tahan et al. (2024) demonstrated that family education significantly increased family knowledge and adherence among patients with hypertension ($p < 0.001$). The mean family knowledge score increased from 46.16 to 51.23, while adherence scores improved from 45.39 to 52.29 following the educational intervention. These findings are consistent with the theory of family health functions proposed by Kaakinen et al. (2018), which emphasizes the role of the family in recognizing health problems, supporting adherence, and modifying the health environment of family members.

Furthermore, a study by Susanto et al. (2024) implementing a Family Self-Management Program demonstrated the effectiveness of a family-based educational approach in improving adherence to a low-sodium diet, blood pressure control, and self-care behaviors among patients with hypertension. Similarly, Zeng et al. (2024) reported that a Patient-Family Partnership Intervention (PFPI) significantly improved quality of life and blood pressure control. Thus, family education has been shown to be an effective, consistent, and sustainable intervention strategy to enhance the success of hypertension management.

2. Family Support in Self-Care

Several studies support that the role of the family positively influences the self-care abilities of patients with hypertension. Proboningsih et al. (2025) found that good family functioning—particularly in communication and behavioral control—significantly enhanced the self-care agency of hypertensive patients. Similar findings were reported by Ramadhani et al. (2024), who identified a significant relationship between family functioning and self-management among patients with hypertension ($p = 0.001$).

However, in contrast to these findings, a study by Simanullang et al. (2025) found no significant relationship between family support and self-care behaviors among patients with hypertension at a community health center in Tangerang. This discrepancy may be explained by several factors:

- Most study participants already demonstrated relatively good individual self-care behaviors, which may have reduced the observable impact of family support.
- The cross-sectional study design captured only a single point in time, making it difficult to establish causal relationships.
- Other variables, such as sociodemographic factors, personal motivation, or disease experience, may act as more influential mediators than family support.

Nevertheless, the majority of the literature continues to indicate that family involvement plays an important role in supporting patients with hypertension in carrying out optimal self-care. This is consistent with family health function theory, which positions the family as a primary actor in supporting health behavior change.

Conclusion

Based on the results of the discussion, it can be concluded that family support is a crucial component in the self-management of hypertensive patients. Education has been proven to be effective in increasing the knowledge, compliance, and health literacy of patients and their families (Tahan et al., 2024; Susanto et al., 2024; Zeng et al., 2024). Meanwhile, family support in the self-care of hypertensive patients has mostly shown a positive influence (Proboningsih et al., 2025; Ramadhani et al., 2024), although there are studies that have not found a significant relationship (Simanullang et al., 2025) due to limitations in research design and other external factors. Overall, integrating family support through education, guidance, and active involvement in self-care should be prioritized in hypertension management programs. This not only helps control blood pressure but also improves patients' quality of life sustainably.

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