MHC Journal Of Mental Health Concern
ISSN 2964-5042 (Print)
ISSN 2964-5034 (Online)
DOI: 10.56922

NOMOR 10/C/C3/DT.05.002025

ARTICLE INFORMATION
Received: October, 12, 2026
Revised: October, 22, 2026
Available online: October, 23, 2026
at: https://e-jurnal.iphorr.com/index.php/mhc

Family support and depressive symptom severity among patients with hypertension

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Abstract

Background: Hypertension is a chronic condition that requires long-term management and may affect psychological well-being. Family support may help patients cope with the challenges of living with hypertension, including depressive symptoms.
Purpose: To determine the association between family support and depressive symptom severity among patients with hypertension.
Method: This quantitative study used a descriptive correlational design with a cross-sectional approach. A total of 60 patients with hypertension were selected using purposive sampling at Tegalrejo Community Health Center, Yogyakarta. Data were collected using a family support questionnaire and the Beck Depression Inventory-II (BDI-II), which assesses depressive symptom severity. Data were analyzed using Kendall's tau correlation test.
Results: Family support was significantly and negatively associated with depressive symptom severity (Kendall's $\tau = -0.438$, $p < 0.001$), indicating a moderate negative association.
Conclusion: Greater family support was associated with lower depressive symptom severity among patients with hypertension.

Keywords: Depression; Family Support; Hypertension.

INTRODUCTION

According to the World Health Organization (WHO), hypertension, or high blood pressure, occurs when the pressure in blood vessels is too high, generally at 140/90 mmHg or higher. This condition is common but can become serious if left untreated. People with hypertension may not experience any symptoms, making regular blood pressure measurements essential for its detection. Globally, an estimated 1.28 billion adults aged 30–79 years have hypertension, with approximately two-thirds living in low- and middle-income countries (World Health Organization, 2023). According to the 2018 Basic Health Research report published by the Indonesian Ministry of Health, the prevalence of hypertension among Indonesian adults aged 18 years and older reached 34.1%, an increase from 25.8% in 2013. These findings indicate that hypertension remains a major public health concern in Indonesia (Ministry of Health of the Republic of Indonesia, 2018). This figure highlights the substantial burden of hypertension on public health. In the Special Region of Yogyakarta, the prevalence of hypertension was also a concern, emphasizing the need for greater attention to disease management at the local level. Age is an important consideration in understanding hypertension, particularly among older adults, who may require ongoing monitoring and comprehensive nursing care to maintain their health and functional well-being (Aspiani, 2018). Age classification is also relevant when describing patient characteristics and interpreting health-related findings within specific age groups (Ministry of Health of the Republic of Indonesia, 2026).

DOI: https://doi.org/10.56922/mhc.v5i7.4558

The impact of hypertension is not limited to physical health, as patients may also experience psychological problems, particularly depression. Depression among people with hypertension has been associated with various factors, including health-related and psychosocial conditions (Agustiya et al., 2024; Dutta et al., 2024). These psychological problems may be overlooked when treatment focuses primarily on physical symptoms. Depression is a mental health problem that can affect a person's emotional state, daily functioning, and ability to cope with life challenges. Recognizing depressive symptoms is therefore important in nursing care, as psychological problems may require appropriate assessment and support in addition to the management of physical health conditions (Kusumawati & Hartono, 2016; Frijanto, 2022). However, depression can affect patients' motivation to maintain treatment routines and attend regular health check-ups. Research has also identified an association between social support and depression among patients with hypertension, highlighting the importance of considering psychological well-being alongside physical health management (Ji et al., 2021; Zhang et al., 2020).

One important factor that may be associated with depression levels among patients with hypertension is family support. Families serve as a primary source of support by providing emotional reassurance, information, encouragement, and practical assistance throughout the treatment process. Previous research has examined family support in relation to treatment adherence and dietary compliance among patients with hypertension (Amelia & Kurniawati, 2020; Yeni et al., 2016). In addition, studies involving patients with hypertension have identified an association between social support and depression, suggesting that support from others may be relevant to patients' psychological well-being (Li et al., 2025). Family social support has also been associated with better hypertension self-care practices, particularly medication adherence and regular blood pressure monitoring, highlighting the importance of family involvement in long-term disease management (Hu et al., 2015).

Nevertheless, not all patients with hypertension receive adequate family support, particularly in terms of psychological and emotional needs. Some family members may have limited understanding of the psychological challenges associated with chronic illness or may not fully recognize patients' emotional needs. Previous research has demonstrated the relevance of family support in the context of hypertension care in Indonesia, although its relationship with depression levels requires further examination in specific patient populations (Halim et al., 2025). Inadequate support may make it more difficult for patients to cope with the demands of long-term treatment and the emotional challenges associated with their condition. A study conducted among patients with hypertension at Ranomuut Community Health Center in Manado, Indonesia, also found a statistically significant association between family support and hypertension severity, emphasizing the relevance of family involvement in hypertension management (Bisnu et al., 2017).

Tegalrejo Community Health Center in Yogyakarta is a primary healthcare facility that provides services to patients with hypertension. Based on preliminary information obtained from a nurse, 802 patients with hypertension visited the health center between April and October 2025. Interviews with three patients revealed that they experienced sadness, reduced motivation to engage in daily activities, loss of appetite, and fatigue. Some patients also expressed thoughts of discontinuing their treatment because they felt they lacked family support. These preliminary findings indicate the importance of examining family support and depression levels among patients with hypertension in this setting.

RESEARCH METHOD

This study used a quantitative descriptive correlational design with a cross-sectional approach to examine the association between family support and depressive symptom severity among patients with hypertension at Tegalrejo Community Health Center, Yogyakarta, Indonesia. Data on family support and depressive symptoms were collected during the same assessment period. The study examined the association between the variables without assuming a causal relationship. A total of 60 patients with hypertension participated in the study. Respondents were recruited using purposive sampling based on predetermined eligibility criteria. The inclusion criteria were patients diagnosed with

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hypertension who attended routine follow-up appointments, lived with their families, were conscious and able to communicate verbally, were willing to participate, and could read and understand the questionnaire. Patients in critical or unstable conditions and those with cognitive impairments that could interfere with questionnaire completion were excluded.

The independent variable was family support, defined as support received from family members in managing hypertension and coping with the demands of long-term treatment. The dependent variable was depressive symptom severity, defined as the severity of depressive symptoms reported by respondents during the assessment. The association between these variables was examined using their respective questionnaire scores and categories. Family support was assessed using a family support questionnaire. Respondents were classified into two categories: high family support and low family support. In the study sample, 46 respondents (76.7%) were classified as having high family support, and 14 (23.3%) were classified as having low family support. The questionnaire's item count, scoring range, categorization thresholds, and psychometric properties were not specified in the available study information; therefore, these details require confirmation from the original instrument and study records before publication. Depressive symptom severity was assessed using the Beck Depression Inventory-II (BDI-II), a 21-item self-report instrument. Each item is scored from 0 to 3, producing a total score ranging from 0 to 63, with higher scores indicating greater depressive symptom severity. For descriptive reporting, scores were classified using the conventional categories: 0–13 for minimal, 14–19 for mild, 20–28 for moderate, and 29–63 for severe depressive symptoms. These categories describe symptom severity and do not independently establish a clinical diagnosis of depressive disorder.

Data were collected by administering the family support questionnaire and the BDI-II to eligible respondents. After collection, the completed questionnaires were checked for completeness, coded, entered into the statistical dataset, and reviewed for consistency. Respondent characteristics included age, gender, educational level, occupation, and duration of hypertension. These characteristics were summarized to describe the demographic and clinical profile of the study sample. Univariate analysis was used to describe respondent characteristics and the distributions of family support and depressive symptom severity. Categorical variables were presented as frequencies and percentages, while age was summarized using the mean, standard deviation, and range. Bivariate analysis was conducted using Kendall's tau-b correlation coefficient to examine the direction and strength of the association between family support and depressive symptom severity. This nonparametric method was selected for the analysis of ordinal variables and accounts for tied ranks. A negative coefficient indicated that higher family support tended to be associated with lower depressive symptom severity. Statistical significance was assessed using a two-sided significance level of 0.05. The result was considered statistically significant when $p < 0.05$. The analysis was interpreted as an association between the variables and not as evidence that family support caused a reduction in depressive symptoms. Participation was voluntary, and the study procedures should be reported in accordance with the consent process actually used. The available study information did not specify the approving research ethics committee, approval number, or documented informed-consent procedure. These details must be verified against the original study records and added before submission; no ethics approval or consent procedure should be claimed without confirmation.

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RESEARCH RESULTS

Table 1. Characteristics of the Respondents (N = 60)

Variable	Results
Age (n/%)(Mean±SD)(Range)(Year)	**(57.45 ± 12.13)(25–85)**
25-40	6/10.0
41-55	16/26.7
56-70	32/53.3
71-85	6/10.0
Gender (n/%)	
Male	25/41.7
Female	35/58.3
Educational Level (n/%)	
Elementary School	9/15.0
Junior High School	18/30.0
Senior High School	27/45.0
Diploma	2/3.3
Undergraduate	4/6.7
Occupation (n/%)	
Not employed	15/25.0
Laborer	21/35.0
Private-sector employee	6/10.0
Trader	10/16.6
Self-employed	6/10.0
Civil servant	1/1.7
Farmer	1/1.7
Duration of Hypertension (n/%)	
1–7 years	42/70.0
8–14 years	18/30.0
Family Support (n/%)	
High	46/76.7
Low	14/23.3
Depression Level (n/%)	
Minimal	41/68.3
Mild	8/13.3
Moderate	6/10.0
Severe	5/8.3

Table 1 presents the demographic and clinical characteristics of the 60 respondents with hypertension. The mean age was 57.45 ± 12.13 years, with an age range of 25–85 years. Most respondents were female (35/58.3), and senior high school was the most common educational level (27/45.0). Regarding occupation, laborers

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accounted for the largest proportion (21/35.0), followed by respondents who were not employed (15/25.0) and traders (10/16.6). Most respondents had experienced hypertension for 1–7 years (42/70.0). In terms of family support, the majority were classified as having high family support (46/76.7), while 14/23.3 had low family support. Regarding depression levels, most respondents were classified in the minimal category (41/68.3), followed by mild (8/13.3), moderate (6/10.0), and severe (5/8.3) categories.

Table 2. Relationship Between Family Support and Depression Levels Among Patients with Hypertension (N = 60)

Variable	Minimal (n= 41)	Mild (n= 8)	Moderate (n= 6)	Severe (n= 5)	*Kendall's τb*	*p*-value
Family Support (n/%)						
Low	1/2.4	4/50.0	4/66.7	5/100.0	-0.438	<0.001
High	40/97.6	4/50.0	2/33.3	0/0.0		

Table 2 presents a statistically significant negative association between family support and depression levels among patients with hypertension (Kendall's τb = −0.438, p < 0.001), indicating a moderate negative correlation. Of the 41 respondents classified in the minimal depression category, 40 (97.6%) had high family support and one (2.4%) had low family support. Among the eight respondents with mild depression, four (50.0%) had high family support and four (50.0%) had low family support. Of the six respondents with moderate depression, two (33.3%) had high family support, while four (66.7%) had low family support. All five respondents in the severe depression category had low family support. These findings indicate that higher family support was associated with lower depression levels. However, because the study used a cross-sectional design, the findings do not establish a causal relationship.

DISCUSSION

The findings showed that the respondents were predominantly older adults, with women accounting for a larger proportion of the sample. These characteristics provide context for understanding the experiences of patients living with hypertension. However, age and gender were not independently analyzed in relation to depression levels in this study; therefore, their influence on depressive symptoms cannot be established from the present findings. Age is an important consideration in understanding hypertension among older adults because its occurrence is associated with several demographic and health-related factors (Adam, 2019). Previous research has examined the relationship between age, gender, and depression among older adults, demonstrating the relevance of considering demographic characteristics when interpreting depression-related findings (Sisi & Ismahmudi, 2020).

Educational and occupational backgrounds may also provide context for patients' experiences in managing chronic illness. Differences in educational attainment may influence how individuals access and understand health information, while occupational and economic circumstances may affect access to healthcare and the ability to maintain long-term treatment. Nevertheless, these factors were not separately tested as predictors of depression in this study. Research on individuals with chronic conditions has examined health literacy in relation to depression, highlighting the relevance of health-related knowledge when considering psychological well-being (Kim, 2024).

The predominance of high family support suggests that most respondents perceived their families as a source of assistance while managing hypertension. Family involvement may help patients maintain treatment routines, attend follow-up appointments, and cope with the demands of living with a chronic condition. Family support is an important component of family nursing care because families can contribute to patients' daily health management and adherence to treatment recommendations (Wahyuni et al., 2021). Previous research among patients with hypertension has examined family support in relation to medication adherence, indicating that support from family members is relevant to the management of this chronic condition (Sari & Wahyu, 2024).

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Nevertheless, the presence of high family support does not necessarily mean that every patient receives adequate assistance in all aspects of care. Family support may differ in its emotional, informational, and practical dimensions, and these differences were not separately examined in the present study. Consequently, the overall family support category cannot establish which specific forms of support were most relevant to patients' psychological well-being.

Most respondents were classified in the minimal depression category, although some experienced mild, moderate, or severe depressive symptoms. This pattern suggests that depressive symptom severity varied among patients despite their shared diagnosis of hypertension. The findings should not be interpreted as evidence that routine hypertension treatment directly improved psychological well-being, because the study did not assess changes over time or include a comparison group. The Beck Depression Inventory-II provides a structured method for assessing depressive symptom severity, allowing respondents' scores to be grouped according to the scoring criteria applied in the assessment (Gebrie, 2018).

The presence of more severe depressive symptoms among some respondents highlights the importance of considering psychological well-being alongside physical health management. Long-term treatment demands, financial difficulties, physical health problems, and limited social support may be relevant contextual factors; however, their individual contributions were not examined in this study. Research involving patients with hypertension has examined the relationship between social support and depression, suggesting that psychosocial support is relevant to understanding psychological well-being in this population (Yan et al., 2020).

The principal finding was a statistically significant, moderate negative association between family support and depression levels. This indicates that greater family support was associated with lower depression severity, whereas lower family support was more frequently observed among respondents with more severe depressive symptoms. The pattern observed in the cross-tabulation was consistent with the direction of the correlation, although the cross-sectional design does not establish whether family support influences depression, depression affects perceptions of family support, or both are associated with other factors.

A study of older Korean adults with hypertension who lived alone examined the role of social support in relation to depression and suicidal ideation, providing further context for understanding the importance of social relationships in the psychological well-being of patients with hypertension (Nam & Jong-Eun, 2019). Similarly, research among older adults has examined the relationship between family support and depression, making it a relevant comparison for understanding how family relationships may relate to depressive symptoms in later life (Barus et al., 2026). These studies provide relevant context for the present findings, although differences in population characteristics and the measurement of social support should be considered when comparing results.

The findings have implications for nursing practice at the primary healthcare level. Assessing family support alongside depressive symptoms may help healthcare professionals identify patients who could benefit from additional psychological assessment or family involvement in their care. Family-oriented health education and appropriate support may be considered as components of comprehensive hypertension management, although their effectiveness was not evaluated in this study. The relationship between mental health conditions and hypertension management has also been examined in longitudinal research conducted in Indonesia, supporting the importance of considering psychological well-being when evaluating hypertension control (Wurisastuti et al., 2026).

Overall, the findings support the relevance of family support when considering depression levels among patients with hypertension. However, the results should be interpreted in light of the cross-sectional design, the sample drawn from a single community health center, and the possibility that other psychosocial and clinical factors contribute to depressive symptoms. Further studies involving larger and more diverse populations could examine these factors and clarify the relationship between family support and depression among patients with hypertension.

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CONCLUSION

Most respondents reported high family support and minimal depressive symptoms. Family support was moderately and negatively associated with depressive symptom severity among patients with hypertension (Kendall's τb = −0.438, p < 0.001). These findings highlight the relevance of assessing family support alongside depressive symptoms in primary healthcare. However, the cross-sectional design does not establish causality, and the findings may not be generalizable beyond the study setting.

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