

Family Support And Quality Of Life Among Elderly Hypertensive Patients In Jambi City Health Centers

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Abstract

Hypertension is a non-communicable disease whose prevalence rises with age and may reduce quality of life among older adults. This study aimed to analyze the relationship between family support, overall and by dimension (emotional, informational, instrumental, and appraisal), and quality of life among elderly hypertensive patients at Puskesmas Kota Jambi, and to identify the most dominant dimension. A cross-sectional design was applied to 62 patients, analyzed using the Chi-Square test and multiple logistic regression with backward elimination. Quality of life was evenly distributed between good and poor categories (50.0% each). Overall family support was significantly associated with quality of life ($p=0.011$; prevalence ratio 2.148; 95% confidence interval 1.186–3.890), as were all four dimensions. Emotional support was the most dominant dimension ($p<0.001$; adjusted prevalence ratio 8.381; 95% confidence interval 2.668–26.328). In conclusion, emotional support most strongly influences the quality of life of elderly hypertensive patients; families are advised to prioritize psychological closeness, such as listening to complaints and providing emotional companionship, while maintaining other support in a balanced manner.

Keywords: Family Support, Quality of Life, Elderly, Hypertension

INTRODUCTION

Quality of life refers to an individual's perception of their position in life within the context of the culture and value systems in which they live, encompassing their goals, expectations, standards, and concerns ((WHO), 2020). A good quality of life requires the fulfillment of physical, psychological, social, and environmental dimensions; when disrupted, it leads to activity limitations, reduced independence, and diminished social functioning. Older adults are the population most vulnerable to declining quality of life due to the gradual physical, psychological, and social decline associated with aging. Indonesia has entered an ageing population phase since 2021, with the elderly proportion rising from 9.93% in 2020 to 11.93% in 2025 (Badan Pusat Statistik Provinsi Jambi, 2025), while Jambi Province and Jambi City recorded 9.93% and 10.37% respectively in 2025, both indicating an aged population structure.

A major challenge to healthy ageing is the high prevalence of hypertension among older adults, often called the silent killer for its typically asymptomatic progression. Globally, hypertension affects one in three adults, yet only 23% achieve adequate control ((WHO), 2025). In Indonesia, prevalence rose from 25.8% in 2013 to 34.1% in 2018 (Kementerian Kesehatan RI, 2018), reaching 64.0% among those aged 75 and above in 2023. In Jambi Province, hypertension ranked second among the ten most prevalent diseases with 161,560 cases (23.21%) in 2024. In Jambi City, cases reached 60,282 in 2025, with the highest burden among residents aged over 59 years (22,339 cases; 50.49%), while only 0.1% of recorded cases were controlled according to ASIK data, reflecting a substantial management gap that directly threatens elderly quality of life. Uncontrolled hypertension often triggers a self-reinforcing cycle of physical complaints and anxiety that further elevates blood pressure and worsens overall quality of life. This pattern is documented across Indonesia with wide regional variation: (Kusumawati et al., 2026) reported 79.1% poor quality of life among 129 elderly hypertensive patients in Cihara, Banten, while (Almaini et al., 2025) found 73.6% moderate quality of life in Rejang Lebong.

Although quality of life is multidimensional, family support remains the most proximal and modifiable determinant, with 74.2% of severely dependent elderly in Jambi Province relying on family as their primary caregiver (Kemenkes, 2023). (Mendrofa et al., 2025) identified family support as the most dominant factor influencing elderly quality of life, a finding reinforced by (Kusumawati et al., 2026), who found physical activity non-significant ($p=0.450$) while family support was highly significant ($p=0.00$). Similar associations were reported by (Prastiwi et al., 2025), (Meiliningtyas & Isnaeni, 2024) $p=0.001$, $r=0.710$), and (Annisa et al., 2024). According to (Friedman, 2010), family support comprises emotional, appraisal, instrumental, and informational dimensions that assist elderly individuals in disease management and treatment adherence. A preliminary study conducted in June 2026 at Puskesmas Aur Duri, Jambi City, involving five elderly hypertensive patients, found that most attended medical visits unaccompanied, prepared meals independently, and received no medication reminders from family, indicating limited family involvement in hypertension management.

Despite growing evidence, most prior studies measured family support as a single composite construct, leaving it unclear which specific dimension emotional, instrumental, informational, or appraisal, is most dominantly associated with quality of life, while existing studies in Jambi City have mainly focused on blood pressure control behavior, medication adherence, and stress rather than family support. Given the high number of hypertension cases among the elderly in Jambi City (22,339 cases) alongside the very low hypertension control rate (0.1%), and the unclear role of each family support dimension, this study addresses the question: is there a relationship between family support and quality of life among elderly hypertensive patients at community health centers in Jambi City? This study aimed to analyze the relationship between family support and quality of life among elderly hypertensive patients at three community health centers with the highest elderly hypertension caseloads in Jambi City, Puskesmas Pakuan Baru, Puskesmas Simpang IV Sipin, and Puskesmas Kenali Besar, specifically examining the frequency distribution of quality of life and respondent characteristics, the frequency distribution of each family support dimension, the association between overall family support and its four dimensions (emotional, informational, instrumental, and appraisal) with quality of life, and the dimension most dominantly associated with quality of life.

RESEARCH METHODS

This study used a quantitative observational analytic design with a cross-sectional approach, conducted at three community health centers with the highest elderly hypertension caseloads in Jambi City, Puskesmas Pakuan Baru, Simpang IV Sipin, and Kenali Besar. The population comprised 9,004 elderly hypertensive patients (aged ≥ 60 years) across the three centers. The minimum sample size was calculated using the Lemeshow two-proportion formula based on (Almaini et al., 2025), yielding 62 respondents after accounting for drop-out, selected through proportional stratified random sampling across the three centers. Eligible respondents were diagnosed hypertensive patients living with family or a primary caregiver who provided informed consent.

Family support (independent variable) was measured across four dimensions, emotional, informational, instrumental, and appraisal, using a 24-item questionnaire adapted from Friedman's (2010) theory, categorized as good or poor based on the mean score, with validity (Pearson correlation, all items valid) and reliability (Cronbach's Alpha = 0.906) confirmed on 30 respondents outside the study locations. Quality of life (dependent variable) was measured using the WHOQOL-BREF instrument, with domain scores transformed to a 0–100 scale and categorized as good or poor based on the median. Data were analyzed

univariately (frequency distribution), bivariately (Chi-Square test, $p<0.05$), and multivariately (multiple logistic regression, backward elimination, variables with $p\leq0.25$ included) to identify the family support dimension most dominantly associated with quality of life.

RESULTS AND DISCUSSION

Table 1. Respondent characteristics (n=62)

Characteristic	(n)	(%)
Age		
60-74 Years	56	90,3
75-90 Years	6	9,7
Sex		
Male	30	48,4
Female	32	51,6
Highest education		
Elementary	2	3,2
Junior High School	4	6,5
Senior High School	44	71,0
College	11	17,7
No Schooling	1	1,6
Employment		
Working	6	9,7
Not Working	56	90,3
Duration of Hypertension		
1-5 Years	23	37,1
6-10 Years	26	41,9
>11 Years	13	21,0
Comorbidities		
Diabetes Mellitus	9	13,8
Heart Disease	7	10,8
Rheumatism	4	6,2
Others	6	9,2
None	39	60,0
Participates in Prolanis		
Yes	11	82,3
No	51	17,7
Marital Status		
Married	54	87,1
Widower	2	3,2
Widow	6	9,7
Lives With		
Spouse	54	87,1
Child	8	12,9

Based on Table 1, the majority of respondents were aged 60–74 years, comprising 56 individuals (90.3%). This was followed by female respondents, with 32 individuals (51.6%), while 44 respondents (71.0%) had completed senior high school and 56 respondents (90.3%) were not working. Regarding hypertension history, most respondents had lived with hypertension for 6–10 years, comprising 26 individuals (41.9%). Most respondents did not participate in Prolanis, with 51 individuals (82.3%). In terms of marital status, 54 respondents (87.1%) were married, and the same proportion, 54 respondents (87.1%), lived with their spouse.

Table 2. Family Support at Community Health Centers in Jambi City

Characteristic	(n)	(%)
Family Support		
Good	33	53,2
Poor	29	46,8
Emotional Support		
Good	33	53,2
Poor	29	46,8
Informational Support		
Good	34	54,8
Poor	28	45,2
Instrumental Support		
Good	35	56,5
Poor	27	43,5
Appraisal Support		
Good	34	54,8
Poor	28	45,2

Based on Table 2, the majority of respondents had good family support, comprising 33 respondents (53.2%), while 29 respondents (46.8%) had poor family support. Regarding the dimensions of family support, emotional support was categorized as good in 33 respondents (53.2%) and poor in 29 respondents (46.8%). Informational support was categorized as good in 34 respondents (54.8%) and poor in 28 respondents (45.2%). Instrumental support had the highest proportion of good support, with 35 respondents (56.5%), while 27 respondents (43.5%) had poor support. Meanwhile, appraisal support was categorized as good in 34 respondents (54.8%) and poor in 28 respondents (45.2%).

Table 3. Quality of Life of Elderly Patients with Hypertension at Community Health Centers in Jambi City

Characteristic	(n)	(%)
Quality of Life		
Good	31	50,0
Poor	31	50,0

Based on Table 3, the respondents were equally distributed according to their quality of life. A total of 31 respondents (50.0%) had good quality of life, while the other 31 respondents (50.0%) had poor quality of life.

Table 4. Association Between Family Support and Quality of Life

Family Support	Quality of Life				Total		PR	95% CI	P-Value
	Good		Poor						
	N	%	N	%	N	%			
Good	22	66,7	11	33,3	33	100	2,148	1,186-3,890	0,011
Poor	9	31,0	20	69,0	29	100			

Based on Table 4.4, respondents with good family support were more likely to have good quality of life. Among respondents with good family support, 22 respondents (66.7%) had good quality of life, while 11 respondents (33.3%) had poor quality of life. Meanwhile, among respondents with poor family support, 9 respondents (31.0%) had good quality of life and 20 respondents (69.0%) had poor quality of life. The analysis showed a significant association between family support and quality of life ($p = 0.011$). Respondents with good family support had a 2.148 times higher prevalence of good quality of life compared with those with poor family support ($PR = 2.148$; 95% CI: 1.186–3.890).

These findings are consistent with Friedman’s theory (2010), which states that the family has affective and health care functions and therefore serves as the primary support system for its members in coping with chronic illness (Friedman, 2010). Families that perform these functions well help older adults adapt psychologically and physically to their illness. Within the framework of the Dahlgren and Whitehead Rainbow Model (1991),

family support is part of social and community networks, which represent the layer of determinants closest to individuals and influence how older adults experience and perceive their health conditions (Dahlgren & Whitehead, 1991). Similar findings were reported by (Kusumawati et al., 2026) at Cihara Community Health Center ($p = 0.00$), (Almaini et al., 2025) ($p = 0.010$), and (Kusdiana et al., 2023) at Sumbang I Community Health Center, who found a strong correlation ($r = 0.502$; $p = 0.000$). (Yuda et al., 2024) also found a significant difference in the quality of life of older adults with hypertension before and after family empowerment ($p = 0.000$). This consistency, despite differences in study settings and populations, strengthens the evidence that family support contributes to the quality of life of older adults with hypertension.

Table 5. Association Between Family Support Dimensions

Family Support Dimensions	Quality of Life				Total		PR	95% CI	P-Value
	Good		Poor						
	N	%	N	%	N	%			
Emotional Support							3,013	1,529-5,937	<0,001
Good	24	72,7	9	27,3	33	100			
Poor	7	24,1	22	75,9	29	100			
Informational Support							2,013	1,113-3,641	0,022
Good	22	64,7	12	35,3	34	100			
Poor	9	32,1	19	67,9	28	100			
Instrumental Support							1,885	1,044-3,406	0,040
Good	22	62,9	13	37,1	35	100			
Poor	9	33,3	18	66,7	27	100			
Appraisal Support							2,013	1,113-3,641	0,022
Good	22	64,7	12	35,3	34	100			
Poor	9	32,1	19	67,9	28	100			

Emotional Support

Older adults with good emotional support had a 3.013 times higher prevalence of good quality of life than those with poor emotional support ($p<0.001$), the strongest association among all dimensions. At the item level, four of six items were significantly associated with quality of life. The strongest were family taking time to accompany the older person when sad or worried ($PR=3.284$; $p<0.001$), willingness to listen to complaints ($PR=3.067$; $p=0.002$), and helping to control emotions ($PR=2.476$; $p=0.005$). Items on loving care and a calm, comfortable home atmosphere were not significant. This pattern suggests that active psychological involvement of the family is more closely related to quality of life than physical presence or routine care alone.

This result agrees with the affective function of the family described by Friedman (2010), which provides warmth, affection, and psychological security, so that older people feel loved and not alone in facing a chronic illness, fostering more adaptive psychological coping. Dewi et al. (2025) likewise reported a significant association between emotional support and quality of life among elderly hypertensive patients ($p=0.005$).

Informational Support

Good informational support was associated with a 2.013 times higher prevalence of good quality of life ($p=0.022$). However, none of the six informational items (such as explaining examination results, advising against high-fat and high-salt foods, reminding about medication, and routine blood pressure checks) was significant individually (all $p>0.05$). This suggests that the effect of family information becomes detectable only when all items are combined into a dimension score, and the small sample probably limited statistical power at the item level. The finding agrees with Dewi et al. (2025) ($p=0.005$) and with Friedman's health care function of the family, which includes giving knowledge and advice so that older people feel better prepared to manage their condition.

Instrumental Support

Good instrumental support was associated with a 1.885 times higher prevalence of good quality of life ($p=0.040$), the weakest association among the four dimensions. As with informational support, no instrumental item was significant individually; the item on providing medication came closest ($PR=1.765$; $p=0.072$). This agrees with Dewi et al. (2025) ($p=0.002$). The relatively weak association may reflect that physical and material help is often seen as a basic family obligation, so its variation does little to distinguish older people with good and poor quality of life. In addition, most respondents were aged 60–74 years and probably had no severe functional limitations, so instrumental help may not yet feel urgent.

Appraisal Support

Good appraisal support was associated with a 2.013 times higher prevalence of good quality of life ($p=0.022$). Two of six items were significant: family giving advice when the older person has difficulty managing hypertension ($PR=2.022$; $p=0.035$) and responding well to the older person's opinions or feelings ($PR=2.165$; $p=0.019$). Both reflect two-way communication, whereas one-way items such as praise and encouragement were not significant. For older people, being appraised appears to mean being listened to and involved, not merely being praised. This is consistent with Dewi et al. (2025) ($p=0.002$) and with the concept of esteem support in the affective function of the family, which protects self-esteem and psychological well-being.

Table 6. Multivariate Analysis of the Association Between Family Support Dimensions and Quality of Life

Variabel	B	P-Value	OR 95% C1
Dukungan Emosional	1,756	0,013	5,792 (1,445-23,209)
Dukungan Informasional	0,503	0,484	1,653 (0,405-6,745)
Dukungan Instrumental	0,288	0,692	1,334 (0,320-5,559)
Dukungan Penghargaan	0,132	0,856	1,141 (0,275-4,732)

Based on Table 3, emotional support was the only dimension that remained significantly associated with quality of life ($B=1.756$; $OR=5.792$; 95% CI: 1.445–23.209; $p=0.013$). After controlling for the other dimensions, older adults with good emotional support had 5.792 times the odds of good quality of life compared with those with poor emotional support. Informational ($OR=1.653$; $p=0.484$), instrumental ($OR=1.334$; $p=0.692$), and appraisal support ($OR=1.141$; $p=0.856$) were not significant in the model, so emotional support was the most dominant dimension.

The dominance of emotional support is consistent with the bivariate results, where it had the largest PR and the most significant items. Conceptually, House and Kahn (1985), cited in Friedman (2010), define emotional support as family members' belief that they are loved and cared for, which addresses the most basic psychological need. Physiologically, the systematic review by (Walther & Wirtz, 2023) showed that people with essential hypertension tend to have higher cortisol and catecholamine reactivity to mental stressors, and that low social support is associated with higher stress reactivity. Emotional support from the family may therefore act as a buffer against this psychological strain. The finding is supported by (Iswatun et al., 2023), who described emotional support as the most optimal form of support for elderly hypertensive patients; by the meta-analysis of (Samtani et al., 2025) of 23,973 older adults, in which emotional support was consistently associated with fewer depressive symptoms while instrumental support was not; and by (Tan, 2025), who found in 4,851 elderly hypertensive patients in China that emotional support had the largest effect in reducing depression scores after propensity score matching.

CONCLUSION

Family support, both overall and in each of its four dimensions (emotional, informational, instrumental, and appraisal), was significantly associated with the quality of life of elderly hypertensive patients at the puskesmas in Jambi City. Older adults with good family support had a 2.148 times higher prevalence of good quality of life ($p=0.011$). Emotional support was the most dominant dimension, remaining significant after controlling for the other dimensions ($OR=5.792$; 95% CI: 1.445–23.209; $p=0.013$). Families are therefore advised to prioritize psychological closeness, such as listening to complaints, accompanying older people when they are sad or worried, and helping them manage their emotions, while continuing to provide informational, instrumental, and appraisal support in a balanced manner. Puskesmas are encouraged to develop family-based interventions, such as family education or counseling, and to involve family members in Prolanis. Future studies with larger samples and longitudinal designs that control for confounders such as age, comorbidity, and duration of hypertension are recommended.

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