



**THE RELATIONSHIP SPOUSAL SUPPORT AND MEDICATION ADHERENCE AMONG CORONARY HEART DISEASE PATIENTS**

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**ABSTRACT**

Coronary heart disease (CHD) is one of the leading causes of mortality worldwide, including in Indonesia. Medication adherence is a crucial factor in preventing complications and improving quality of life among patients. This study aimed to examine the relationship between spousal support and medication adherence among patients with coronary heart disease. A quantitative study with a cross sectional design using a systematic sampling technique was conducted among 159 CHD patients attending the cardiac outpatient clinic at Dr. Moewardi General Hospital, Surakarta. Data were collected using a spousal support questionnaire and the Morisky Medication Adherence Scale MMAS 8 and analysed using the Spearman Rho test with a 95 percent confidence level. The results showed a significant positive relationship between spousal support and medication adherence with p value 0.001 and correlation coefficient r 0.482. Patients who received high spousal support demonstrated better medication adherence compared to those with low support. Spousal support plays an important role in improving medication adherence among patients with CHD and should be considered in long term disease management strategies.

Keywords: coronary heart disease; medication adherence; spousal support

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**INTRODUCTION**

Coronary heart disease (CHD) is a major public health problem and remains one of the leading causes of morbidity and mortality worldwide. Cardiovascular diseases account for approximately 17.9 million deaths annually, with more than 80 % caused by heart attacks and strokes (WHO, 2021). In Indonesia, CHD prevalence is reported at 1.5 %, with several provinces showing rates above the national average, including North Kalimantan, Yogyakarta, and Gorontalo. Central Java also demonstrates a relatively high prevalence of CHD, reaching 1.6 % (Kemenkes, 2018).

Coronary heart disease occurs due to narrowing of the coronary arteries caused by atherosclerosis, a process involving lipid plaque accumulation that reduces arterial elasticity and impairs myocardial blood flow. This condition may lead to angina pectoris, myocardial ischaemia, or myocardial infarction, either with or without overt clinical symptoms (Ghani & Novriani, 2016). Patients with CHD commonly require lifelong treatment and continuous monitoring to prevent disease progression and recurrent cardiovascular events. Management of CHD involves a combination of pharmacological and non-pharmacological therapies aimed at improvement of patient quality of life symptom control, prevention of complications. Pharmacological therapy includes the use of antiplatelet agents, statins, and beta blockers, while non pharmacological approaches focus on lifestyle modification, physical activity, dietary regulation, weight management, and smoking cessation (Hanifah et al., 2021). The effectiveness of these interventions depends on patient adherence to treatment.

Medication adherence is a critical factor in achieving optimal therapeutic outcomes among patients with CHD. Poor adherence has been associated with increased risk of symptom recurrence,

hospitalisation, and mortality. Several studies have demonstrated that adherence behaviour is influenced not only by individual factors but also by social and environmental support systems, particularly family support (Istiqomah, 2019).

There family members, spouses often play a central role in providing daily emotional, informational, and practical support. Spousal involvement, such as reminding patients to take medication, encouraging healthy behaviours, and accompanying patients to healthcare visits, may enhance motivation and consistency in following long term treatment (Nurchayani et al., 2021). However, research specifically examining the relationship between spousal support and medication adherence among CHD patients remains limited, especially in the Indonesian context. Therefore, this study aimed to analyse the relationship between spousal support and medication adherence among patients with coronary heart disease.

## **METHOD**

This study employed a quantitative approach with a cross sectional design. The study aimed to analyse the relationship between spousal support as the independent variable and medication adherence as the dependent variable among patients with coronary heart disease. The population consisted of all coronary heart disease patients who visited the cardiac outpatient clinic at Dr Moewardi Regional General Hospital Surakarta, totalling 268 patients. A total of 159 respondents were selected using a systematic sampling technique with an interval of two, in which patients with even queue numbers were included as study samples. The study was conducted at the cardiac outpatient clinic of Dr Moewardi Regional General Hospital Surakarta in September 2024. This research was conducted ethically and responsibly and has obtained ethical approval from the Health Research Ethics Committee of Dr Moewardi Regional General Hospital Surakarta with ethical clearance number 443/II/HREC/2025.

Data were collected using structured questionnaires. Spousal support was measured using a spousal support questionnaire developed by Tulasik, (2019), which had been tested for validity and reliability, demonstrating acceptable validity ( $r = 0.301$ ) and reliability (Cronbach's alpha = 0.628). The questionnaire used a Likert scale consisting of positive statements with four response options, namely always with a score of 4, often with a score of 3, sometimes with a score of 2, and never with a score of 1. The total score of spousal support was categorised into three levels, including high support with a score of 36 to 48, moderate support with a score of 24 to 35, and low support with a score of 12 to 23. Medication adherence was measured using the Morisky Medication Adherence Scale (MMAS-8) developed by Tulasik, (2019), which had been tested for validity ( $r = 0.576$ ) and reliability, with a Cronbach's alpha value of 0.795. Items one to seven used yes or no responses, while item eight used a five point frequency scale. Medication adherence was categorised into high adherence with a score of 8, moderate adherence with a score of 6 to 7, and low adherence with a score of less than or equal to 5. The data analysis used in this study included univariate and bivariate analyses. Univariate analysis was used to describe the characteristics of each variable studied, both independent and dependent variables. The results of the general univariate analysis were presented in the form of frequency distribution tables and percentages. Bivariate analysis was conducted to determine the relationship between the independent variable (partner support) and the dependent variable (treatment adherence). Because the data were not normally distributed and were ordinal, the relationship was tested using the non-parametric Spearman Rho test.

## **RESULT**

### **Characteristics of Respondents**

Based on the age distribution of respondents, the highest frequency was in the 50–70 age group, with 88 respondents (55.4%). In terms of gender, the majority of respondents were male, with 113 respondents (71.1%). Regarding education level, the majority of respondents had completed high

school, namely 62 respondents (39.0%). Based on occupation, the majority of respondents worked in the private sector, namely 55 respondents (34.6%). In terms of disease duration, the majority of respondents had suffered from coronary heart disease for 1–3 years, namely 63 respondents (39.6%), and the majority had undergone treatment for more than six months, namely 85 respondents (53.5%). This is presented in Table 1.

Table 1.

Frequency Distribution of Respondents Characteristics

Variabel	f	%
Age		
30–39	22	13,8
40–49	49	30,8
50–59	62	39,0
60–70	26	16,4
Gender		
Male	113	71,1
Female	46	28,9
Education		
Elementary School	22	13,8
Middle School	31	19,5
High School	62	39,0
Diploma	19	12,0
Bachelor's Degree	25	15,7
Occupation		
Civil Servant	32	20,1
Private Employment	55	34,6
Self-Employed	40	25,2
Housewife	22	13,8
Other	10	6,3
Duration of Illness		
< 1 year	26	16,4
1–3 year	63	39,6
4–6 year	40	25,2
> 6 year	30	18,8
Duration of Treatment		
< 3 month	30	18,8
4–6 month	44	27,7
> 6 month	85	53,5

### Description of Spousal Support and Medication Adherence

The majority of respondents had high overall spousal support, with 112 respondents (70.4%). In terms of emotional support, most respondents were also in the high category, totaling 100 respondents (62.9%). For instrumental support, the high category was the most frequent, with 85 respondents (53.5%). Similarly, informational support was predominantly high, with 98 respondents (61.6%). Meanwhile, appraisal support was also mostly categorized as high, accounting for 75 respondents (47.2%). Distribution of spousal support and its dimensions is presented in Tables 2

Table 2.

Frequency Distribution of Spousal Support

Type of Support	Low		Moderate		High	
	f	%	f	%	f	%
Spousal Support (Total)	24	15.1	23	14.5	112	70.4
Emotional Support	18	11.3	41	25.8	100	62.9
Instrumental Support	29	18.2	45	28.3	85	53.5
Informational Support	22	13.8	39	24.5	98	61.6
Appraisal Support	36	22.6	48	30.2	75	47.2

More than half of the respondents demonstrated moderate medication adherence (56.0%). A total of 42.1% of respondents were categorized as having low medication adherence, while only 1.9% showed high adherence. The distribution of medication adherence among respondents is shown in Table 3.

Table 3.  
Distribution of Medication Adherence

Medication adherence	f	%
Low	67	42,1
Moderate	89	56,0
High	3	1,9

### Relationship between Spousal Support and Medication Adherence

Based on the results of research conducted at Moewardi Regional Hospital, the relationship between family support and medication compliance is found in the table below.

Table 4.  
Relationship between Spousal Support and Medication Adherence

Spousal support	Medication Adherence				p-value
	Low	Moderate	High	Total	
Low	15 (9,4%)	9 (5,7%)	0 (0%)	24 (15,1%)	0.001
Moderate	18 (11,3%)	5 (3,1%)	0 (0%)	23 (14,5%)	
High	34 (21,4%)	75 (47,2%)	3 (1,9%)	112 (70,4%)	

Note: Spearman Rho test

### DISCUSSION

The findings of this study indicate that most respondents were in the older age group and had completed senior high school education. This suggests that coronary heart disease predominantly affects middle-aged to older individuals with a moderate level of education. Increasing age is associated with degenerative changes, including reduced vascular elasticity and increased atherosclerotic plaque formation, which elevate the risk of coronary artery disease (Kemenkes, 2022). At the same time, educational level influences the ability of patients to understand health information and apply it in daily life, including adherence to long-term treatment and disease management, and these findings are consistent with previous reports stating that advancing age increases cardiovascular risk, while education plays an important role in shaping health related behaviour (Hernowo et al., 2021).

Based on sex and occupational status, the majority of respondents were male and remained economically active, particularly as private sector employees and self-employed workers. Men are known to have a higher risk of coronary heart disease due to hormonal factors, such as testosterone, as well as lifestyle patterns including smoking, work-related stress, and unhealthy dietary habits. In addition, high work demands, occupational stress, and inadequate rest may further contribute to cardiovascular risk among working individuals. These findings are in line with previous studies highlighting the influence of sex and occupational characteristics on the occurrence of coronary heart disease (Ardianti et al., 2022; Sumara & Wibowo, 2025).

Regarding disease duration and treatment history, most respondents had been diagnosed with coronary heart disease for one to three years and had undergone treatment for more than six months. This indicates that the majority of patients were in the chronic phase of the disease and required long-term therapy. Long-term treatment necessitates sustained adherence to medication and lifestyle modification to prevent disease recurrence and improve quality of life (Zahro et al., 2025). Most respondents received high levels of spousal support, indicating that spouses play an important role in providing emotional encouragement, motivation, and practical assistance, such as reminding patients to take medication and accompanying them to healthcare visits. Spousal support has been shown to promote healthy behaviour and support adherence among patients with chronic diseases

(Kartika et al., 2025).

Despite the relatively high level of spousal support, medication adherence among respondents was generally at a moderate level. This suggests that although patients attempted to follow prescribed treatment regimens, some barriers remained, including forgetfulness and fatigue related to long-term therapy. Medication adherence is influenced by both internal factors, such as motivation and knowledge, and external factors, including support from spouses and healthcare providers (Rizqiyana et al., 2025). The findings demonstrate a positive and moderate relationship between spousal support and medication adherence among patients with coronary heart disease. Higher levels of spousal support were associated with better adherence to medication. Emotional reassurance, motivation, and practical assistance provided by spouses can strengthen the confidence and commitment of patients to follow treatment recommendations consistently. These findings are consistent with previous studies reporting that strong family support improves adherence in chronic disease management. (Monita & Fadhillah, 2021; Suprabowo & Isnawati, 2025).

## **CONCLUSION**

This study concludes that most patients with coronary heart disease at RSUD Dr. Moewardi Surakarta received high levels of spousal support, particularly in terms of attention, motivation, and involvement in the treatment process. Medication adherence among respondents was generally at a moderate level, indicating that some patients had not fully adhered to medical recommendations consistently. The Spearman Rho correlation analysis showed a significant positive relationship between spousal support and medication adherence, suggesting that higher spousal support is associated with better adherence to treatment.

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