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Spiritual Well-Being, Self-Care, and Quality of Life in Indonesian Patients with Coronary Heart Disease: A Correlational Study in a Regional Hospital of Cirebon, Indonesia

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ABSTRACT

Coronary heart disease (CHD) is the leading cause of mortality globally. The quality of life of CHD patients is not only influenced by physical conditions, but also by psychological, spiritual, and self-care behaviors. Investigate the relationship between spiritual well-being and self-care with quality of life in coronary heart disease patients in the hospital. This study used a quantitative correlational design with a cross-sectional approach. A total of 93 coronary heart disease (CHD) patients receiving outpatient care at Gunung Jati Cirebon City Regional Hospital were selected through purposive sampling. The instruments used were the Spiritual Well-Being Scale (SWBS), the Self-Care of Coronary Heart Disease Inventory (SC-CHDI), and the SF-36 Health Survey to measure quality of life. Data were analyzed using Pearson correlation and multiple linear regression. There was a significant positive relationship between spiritual well-being and quality of life ($r = 0.56$; $p < 0.001$), as well as between self-care and quality of life ($r = 0.64$; $p < 0.001$). Multiple regression analysis revealed that both spiritual well-being and self-care significantly influenced quality of life ($R^2 = 0.72$; $p < 0.001$), indicating that these factors together explained 72% of the variance in quality of life among CHD patients. Notably, self-care emerged as the stronger predictor. These findings highlight the critical role of both spirituality and self-care in enhancing patients' well-being. Integrating spiritual support and self-care education into nursing practice is recommended to improve the quality of life in individuals with coronary heart disease.

Key Messages:

Integrating spiritual well-being and self-care support into nursing care can significantly enhance the quality of life in Indonesian patients with coronary heart disease

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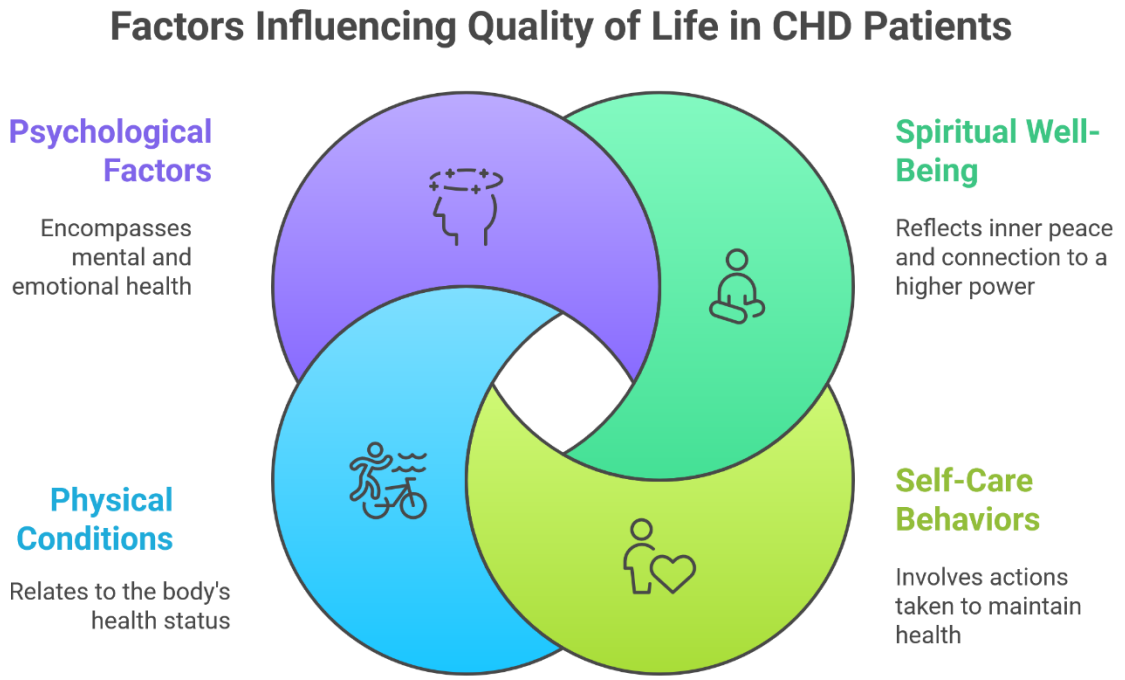
GRAPHICAL ABSTRACT



INTRODUCTION

Coronary heart disease (CHD) remains the leading cause of death globally. According to the World Health Organization (1), more than 17.9 million people die from cardiovascular disease each year, a significant portion of which are caused by CHD. In Indonesia, the prevalence of CHD also displays a worrying trend. Data from the 2018 Basic Health Survey (Riskesdas) showed that the prevalence of CHD reached 1.5% of the total population with a continuously increasing trend, along with the increase of modern lifestyles and population aging.

CHD is a condition in which the coronary arteries become narrowed due to the accumulation of atherosclerotic plaque that blocks blood flow to the heart muscle, causing ischemia and the risk of myocardial infarction (2). Patients with CHD generally experience a significant decrease in their quality of life in physical, psychological, social, and spiritual aspects. The quality of life of chronic patients is not only determined by physical conditions, but also by their ability to adapt to the disease (3).

Decreased quality of life may occur due to activity limitations, chest pain, drug dependence, and fear of sudden death (4). This results in a great emotional burden on patients and their families. Quality of life is an important indicator in evaluating the outcome of treatment for patients with chronic diseases, including CHD. Therefore, efforts to improve quality of life are the main focus in long-term management. Various factors have been identified as influencing quality of life in CHD patients, including socioeconomic status, adherence to treatment, family support, and self-care ability (5). Self-care is an important aspect in managing chronic diseases. According to Tulu SN et al (2021) (6), self-care includes three main domains: health maintenance, symptom monitoring, and symptom management. Patients who have good self-care skills are found to have better control over symptoms and complications, which has a positive impact on quality of life (7).

In addition to self-care, spirituality is also considered to contribute significantly to health outcomes, particularly in chronic illness contexts. In this study, the term “spiritual well-being” is used as a measurable construct to represent the broader concept of spirituality. Spiritual well-being, as assessed using the Spiritual Well-Being Scale (SWBS), refers specifically to individuals’ sense of peace, purpose, and connectedness to a higher power or spiritual beliefs. Spirituality provides a sense of meaning, purpose, and hope in life (8). This transition from the broader concept of spirituality to the operationalized construct of spiritual well-being helps guide the study’s focus while remaining consistent with the literature. Spiritual

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well-being, which includes a sense of peace, connectedness to a higher power, and acceptance of one's condition, has been shown to improve the psychological and emotional well-being of patients with chronic illness (9).

In the context of Indonesian culture, spiritual and religious values are very strong and are an important part of people's lives, especially in elderly patients with chronic diseases (10). Spirituality can help patients in the process of coping with stress and anxiety caused by chronic diseases. In many cases, patients with high levels of spirituality show a more positive attitude towards treatment and prognosis. Several studies have revealed a positive relationship between spirituality and quality of life in patients with heart failure, diabetes, and cancer (11). However, studies that specifically examine the relationship between spirituality and self-care with quality of life in CHD patients are still limited, especially in developing countries like Indonesia. A study by Movahedi F et al (2021) (12) showed that spiritual-based self-care training is effective in improving the psychological aspects and quality of life of heart disease patients.

Although this research was conducted in a local context (Gunung Jati Cirebon City Regional Hospital), it addresses a broader gap by providing culturally grounded evidence on the importance of spiritual well-being and self-care in improving the quality of life for CHD patients. This is especially relevant in Indonesia, where spirituality and religious practices are deeply integrated into daily life and health behaviors. Research in Indonesia that assesses the relationship between these two variables with quality of life simultaneously is still limited, even though both have great potential in nursing interventions. Hospitals as health service institutions have a strategic role in facilitating self-care education programs and spiritual support to improve the quality of life of chronic patients. Nurses, as health workers who interact most frequently with patients, play an important role in educating patients regarding disease management and psychospiritual support. Spiritual and self-care-based nursing service models have not been systematically implemented in hospitals. Therefore, this study is important as a basis for compiling comprehensive nursing interventions.

The integration of a spiritual approach and increasing self-care skills can be an effective strategy in improving quality of life holistically. This research fills a local and cultural gap by evaluating both variables simultaneously at the Gunung Jati Cirebon City Regional Hospital, and may offer insights for other culturally similar regions or countries with strong spiritual traditions. The results of this study can also be a reference for the development of more comprehensive nursing interventions based on patient needs. Theoretically, this study strengthens the understanding that the quality of life of chronic patients depends not only on medical therapy, but also on psychological and spiritual support. The purpose of this study is to analyze the relationship between spiritual well-being and self-care with the quality of life in coronary heart patients in hospitals.

The research question to be answered is whether there is a significant relationship between spiritual well-being and self-care with quality of life in CHD patients. By understanding the relationship between these variables, it is expected that health workers can develop intervention strategies that not only focus on biological aspects, but also on psychospiritual dimensions. This study is also expected to contribute to the development of nursing theory and evidence-based clinical practice.

METHODS

This study was done using a quantitative design with a correlation approach. This design was chosen to analyze the relationship between the variables involved in the study, namely spiritual well-being, self-care, and quality of life in patients with coronary heart disease (CHD).

The population in this study were all patients with a diagnosis of CHD who underwent outpatient treatment at the Gunung Jati Cirebon City Regional Hospital from February to April 2025. The sample of this study was 93 respondents which was taken using purposive sampling with the inclusion criteria of: age ≥40 years, able to communicate verbally, and willing to be respondents. Purposive sampling was selected to ensure the inclusion of patients who met specific clinical and communication criteria relevant to the study objectives and who could provide informed and meaningful responses.

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The instrument used in this study was a questionnaire. Respondents were given a questionnaire instrument consisting of three main parts: the Spiritual Well-Being Scale (SWBS), the Self-Care of Coronary Heart Disease Inventory (SC-CHDI), and the SF-36 Health Survey. The researcher provided a brief guide to respondents on how to fill out the questionnaire.

The SC-CHDI has been validated for use in patients with coronary heart disease and demonstrates good internal consistency, with Cronbach's alpha values ranging from 0.78 to 0.89 in previous studies (13). The Indonesian version of the SWBS, originally developed by Ellison CW (1982) (14), has also been shown to have good psychometric properties in previous local studies.

A pilot test was conducted with 10 CHD patients from a similar population to assess the clarity, cultural appropriateness, and comprehension of the translated questionnaire items. Feedback from the pilot testing was used to make minor adjustments to wording, and the pilot responses were excluded from the main data analysis. Analysis of the relationship between spiritual well-being, self-care, and quality of life, was done using Pearson correlation analysis and multivariate tests using Multiple Linear Regression.

This study obtained ethical approval from the Health Research Ethics Committee of the Mahardika Institute of Technology and Health with letter number: 046/KEPK.ITEKSMA/II/2025. Informed consent was given to all respondents after the purpose and procedures of the study were explained.

RESULTS

Table 1 show that the majority of respondents in this study were male with 58 people (62.4%), while 35 (37.6%) of the people in this study were women. This is in line with the prevalence of coronary heart disease (CHD) which is higher in men than women, especially in the productive and elderly age groups. The largest age group was 45-54 years old with 30 people (32.3%), followed by 55-64 years old with 27 people (29.0%). This age group is at high risk for CHD due to the accumulation of risk factors such as hypertension, diabetes, and unhealthy lifestyles.

Table 1. Respondent Characteristics (n = 93)

Characteristic	Category	n	%
Gender	Male	58	62.4%
	Female	35	37.6%
Age (years)	35–44	18	19.4%
	45–54	30	32.3%
	55–64	27	29.0%
	≥ 65	18	19.4%
Last Education	Elementary school	12	12.9%
	Middle school	20	21.5%
	High school	35	37.6%
	University	26	28.0%
History of CHD	<1 year	14	15.1%
	1–3 years	40	43.0%
	>3 years	39	41.9%
Working status	Working	45	48.4%
	Not working	48	51.6%

The majority of respondents had a high school education, with 35 people (37.6%), while 25 (28%) of the respondents had higher education. Educational level may influence knowledge about CHD, engagement in self-care, and receptiveness to health information. The level of education can affect respondents' understanding of the disease and compliance in carrying out self-care. Most respondents had suffered from CHD for 1-3 years (43%) and >3 years (41.9%). This suggests that most respondents have lived with chronic conditions for a long time and have experience in undergoing treatment, which can affect quality of life and the need for spiritual support. Almost half of the respondents in this study were unemployed (51.6%), which may reflect the impact of the disease on productivity, or because some have

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reached retirement age. This has implications for the psychosocial and economic conditions of respondents which can also affect quality of life.

Table 2. Descriptive Statistics of Study Variables

Variable	Mean	SD	Min	Max
Quality of Life	61.6	10.2	40.0	80.0
Spiritual Well-Being	47.0	8.7	28.0	60.0
Self-Care	3.0	0.6	1.8	4.0

The results of Table 2 show that the average value of the patient's quality of life is rather good (61.6 out of 100), spirituality is high (47 out of 60), and self-care is sufficient (3.0 out of 4.0). The standard deviation indicates moderate variability among respondents for all variables.

Table 3. Bivariate Correlation Between Study Variables

Variable	Variable 2	r	p-value
Quality of Life	Spiritual Well-Being	0.56	0.000
Quality of Life	Self-Care	0.64	0.000
Spiritual Well-Being	Self-Care	0.61	0.000

Table 3 shows that there is a positive and significant correlation between all pairs of variables. The correlation between self-care and quality of life is the strongest ($r = 0.64$), followed by the relationship between spirituality and quality of life ($r = 0.56$). All relationships are statistically significant ($p < 0.01$). This indicates that self-care may have a stronger direct association with quality of life than spiritual well-being in this population.

Table 4. Multiple Linear Regression: Predictors of Quality of Life

Predictor Variable	B (Coefficient)	SE	Beta (Standardized)	p-value
Spiritual Well-Being	0.32	0.08	0.38	0.001
Self-Care	0.48	0.09	0.52	0.000

Both predictors contribute significantly to improving quality of life. The standardized beta value shows that self-care ($\beta = 0.52$) has a stronger influence than spiritual well-being ($\beta = 0.38$), indicating that self-care was the stronger predictor in this model**.** This model is overall significant with an Adjusted R^2 value of 0.72, which means that 72% of the variation in quality of life can be explained by these two variables. Although spiritual well-being is conceptually broad and relevant to long-term adaptation, the statistical analysis showed self-care to be the dominant predictor in this model (Table 4).

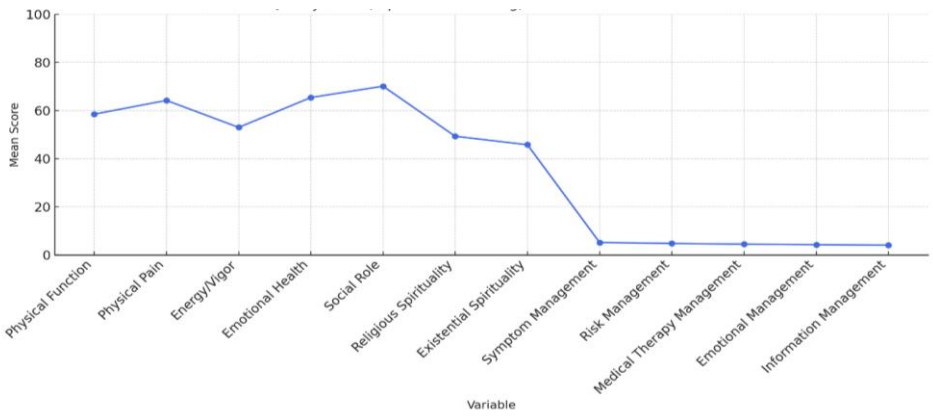

Figure 1. Mean Scores of Quality of Life, Spiritual Well-Being, and Self-Care Dimensions in CHD Patients

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Figure 1 shows the average scores of various subscales across the three main study variables: Quality of Life (SF-36), Spiritual Well-Being (SWBS), and Self-Care (SC-CHDI). Quality of life subscales such as physical functioning, emotional health, and social roles had relatively high scores. Spirituality was measured through religious and existential domains, with religious spirituality scoring slightly higher. In contrast, self-care subscales—particularly symptom management, risk management, medical therapy management, emotional regulation, and information management—showed lower average scores. This pattern suggests potential gaps in self-care practices among CHD patients, especially in the domains requiring ongoing education and behavior regulation. These areas may represent targets for tailored interventions to enhance quality of life outcomes.

DISCUSSION

The results of this study indicate that there is a significant relationship between spiritual well-being and self-care with quality of life in patients with coronary heart disease (CHD). Data obtained from this research showed a significant relationship between spiritual well-being and quality of life ($r = 0.56$; $p < 0.001$), as well as between self-care and quality of life ($r = 0.64$; $p < 0.001$). The results of the regression analysis showed that spiritual well-being and self-care simultaneously had a significant effect on quality of life ($R^2 = 0.72$; $p < 0.001$), which means that 72% of the variation in quality of life can be explained by these two variables. This finding strengthens the results of previous studies which stated that spiritual support and self-care behaviors have an important contribution in improving the well-being of patients with chronic diseases (15). CHD patients who have high spirituality tend to be able to accept their disease conditions more positively. They are able to build hope, let go of resentment, and make illness a part of the life process that must be lived. This is in line with the findings of (16) that found that the spiritual dimension plays an important role in improving the coping of heart patients. In addition, spirituality helps reduce anxiety, depression, and stress that often accompany chronic diseases. Patients with a strong spiritual dimension show more stable emotional regulation and better social connectedness, which contributes to an overall improvement in quality of life (17).

Meanwhile, self-care also shows a significant relationship with quality of life. Good self-care behaviors, such as diet, stress management, routine medication, and control of risk factors, are very important for the stability of CHD patients' conditions (6).

However, the multiple regression analysis (Table 4) clearly indicates that self-care ($\beta = 0.52$) was the stronger statistical predictor of quality of life compared to spiritual well-being ($\beta = 0.38$). Although spiritual well-being remains conceptually and emotionally impactful, its statistical contribution was secondary. These results indicate that patients who are active in caring for themselves have a higher perception of quality of life. They feel more able to control the disease and reduce dependence on others, which improves the psychological and social aspects of quality of life. The strong influence of self-care may also relate to the participants' educational level and disease duration. Most respondents had at least a high school education and had been diagnosed with CHD for more than 1 year. These factors may have given them more time and capacity to learn and apply effective self-care strategies. However, this observation is tentative and would benefit from further investigation.

In the others studies, spiritual well-being was the most dominant predictor of quality of life. This indicates that although self-care behavior is important, the spiritual dimension has a deeper and more comprehensive influence, covering the mental, emotional, and existential aspects of patients (18). A study by Hudiyawati D (2024) (19) in heart failure patients found that spiritual well-being contributed greatly to optimism, life satisfaction, and acceptance of the disease. In addition, spiritual well-being is often a mediator between stress and quality of life. Patients who experience emotional stress due to illness can use spiritual practices such as prayer, meditation, or worship as a form of positive coping. This study also provides a basis that a spiritual approach needs to be integrated into nursing practice. Interventions such as spiritual counseling, reflection on the meaning of life, or providing a spiritual space in the hospital can be part of holistic nursing care (20). On the other hand, these results indicate the need for ongoing self-care education and training for CHD patients. Health workers must ensure that patients understand the importance of self-care and have the skills to apply it in their daily lives consistently.

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This underscores the need for integrated nursing interventions that address both physical and spiritual needs. We recommend practical applications such as spiritual counseling, reflective practices, and culturally appropriate care strategies, particularly given Indonesia's diverse religious context (21), alongside structured self-care education. This study has several limitations that should be acknowledged. Its cross-sectional design restricts the ability to draw causal conclusions, and the single-center setting may limit the generalizability of the findings to broader populations. Additionally, the reliance on self-reported data introduces the possibility of response bias or social desirability effects. To build on these findings, future research should consider longitudinal designs to clarify the directionality of the observed relationships, as well as intervention studies aimed at enhancing spiritual well-being and self-care behaviors to evaluate their direct impact on quality of life. Further exploration of potential mediating or moderating factors, such as social support, depression, or coping strategies, would deepen our understanding of how these variables interact. Qualitative studies are also recommended to gain richer insights into how patients with CHD experience and integrate spirituality and self-care in managing their condition. Overall, our results highlight that both self-care and spiritual well-being are essential components of quality of life in CHD patients, with self-care emerging as the stronger statistical predictor. Nurses play a key role in promoting these domains through culturally sensitive and holistic care approaches.

CONCLUSION

Based on the findings from 93 coronary heart disease (CHD) patients in a hospital in Cirebon, this study concludes that both spiritual well-being and self-care are significantly associated with quality of life. Patients with higher levels of spiritual well-being tend to report better quality of life, as spirituality may provide inner strength, emotional resilience, and acceptance in facing chronic illness. Likewise, good self-care behavior contributes positively by enabling patients to manage symptoms, prevent complications, and maintain independence. Importantly, multivariate analysis revealed that self-care is the strongest predictor of quality of life, as indicated by the higher standardized beta coefficient ($\beta = 0.52$) compared to spiritual well-being ($\beta = 0.38$). This finding underscores the central role of self-care in daily disease management and its direct impact on patients' well-being. Therefore, a holistic nursing approach is recommended—one that not only supports physical health but also emphasizes spiritual care and fosters self-care capacity. Nurses and other healthcare providers are encouraged to integrate structured self-care education and culturally sensitive spiritual interventions into routine practice to improve the overall quality of life for CHD patients.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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