## ORIGINAL RESEARCH

# THE RELATIONSHIP BETWEEN SPIRITUALITY AND QUALITY OF LIFE OF PATIENTS WITH CORONARY HEART DISEASE

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## **Abstract**

**Background**: Patients with Coronary Heart Disease (CHD) tend to have a low Quality of Life

**Purpose:** This study aims to identify the relationship between spirituality and the OoL of Patients with CHD.

**Methods**: Descriptive correlational statistics with a crosssectional design involving inpatients of CHD at the Adventist General Hospital, Medan. There were 89 patients who were selected using a purposive sampling technique. This study used the Daily Spiritual Experience Scale (DSES) and Quality of Life Index (QLI). Spearman Rank Correlation was used to analyze the relationship between the two variables.

**Results**: The results of this study showed that 56.9% of CHD patients had low spirituality, and 52.8% had poor QoL. There is a significant relationship between spirituality and the QoL of CHD patients (r = -0.533; P = 0.001 < 0.05).

**Conclusion:** CHD patients with low spirituality have poor QoL. It is very important to provide interventions to improve the spirituality of patients with CHD which can ultimately improve their (QoL), which affects the recovery process. Several QoL. literatures note that the need for spirituality plays an important role in recovery in chronic patients.

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#### 1. Introduction

Coronary Heart Disease (CHD) is a serious health problem and the leading cause of death worldwide at 36% in 2020, and in Indonesia at 26.4% (1). According to data from the World Health Organization (WHO) in 2020, the number of cases continues to increase, moreover, the number of this disease is ranked second after stroke (2). This disease has an impact on aspects of life or Quality of Life (QoL) of patients including physical, psychological/spiritual, emotional, and social aspects (3; 4). Many CHD patients have a low quality of life (1). The low QoL of these patients can affect the recovery process, reduce compliance with treatment, reduce the capacity to carry out daily activities, increase the number of visits and readmissions to the hospital, and increase the risk of complications and death (3). Several factors related to the quality of life of CHD such as physical, psychological, socio-economic factors, but from the spiritual aspect itself, there are still few findings.

Research that identifies physical and psychological factors such as functional status factors and self-efficacy correlates with quality of life (5). In addition, psychological factors such as depression affect 5,450 times the OoL of patients, and anxiety can reduce the quality of life of patients by 4,736 times (6). Furthermore, revascularization factors can reduce 3,232 QoL of CHD patients (6). Meanwhile, improving the quality of life is not only done through the physical healing process, but the most important thing is to increase spiritual needs. The patient's understanding of their illness and changing the orientation of the patient's thinking from healing to surrendering to God and relationships with other people is important (7; 8). Several studies have reported that spirituality is related to the OoL of patients with chronic diseases such as HIV / AIDS. cervical cancer (9; 10; 11; 12). However, there are still very few studies found in CHD patients. Several of these studies show that patients who have a high level of spirituality also have a high quality of life. Meanwhile, patients who have low levels of spirituality tend to be more depressed than patients with good levels of spirituality (9; 10; 11; 12). Patients report that spiritual practices help relieve symptoms and in some cases can change the prognosis of their disease (13).

According to Prasetyo, (14) individuals who have the ability to identify positive spiritual beliefs that they have can use these beliefs to face their health situations positively, conversely if individuals do not have the ability to do so, they will not get answers about the meaning and purpose of their lives (14). Understanding the need for spirituality will affect the quality of life of individuals psychologically, in other words, spirituality is something that revives the spirit for patients to achieve better health (15). Moreover, spirituality can be a coping mechanism and an important contributing factor to the client's recovery process (15).

Fulfilling the spiritual needs of CHD patients can be said to be difficult if no research is conducted on the relationship between spirituality and the quality of life of CHD patients. In addition, the prognosis of CHD patients is poor, therefore, treatment must be serious in order to maintain their QoL. Considering that the cases of CHD are high in Indonesia and are also the leading cause of death, it is necessary to conduct research to identify the relationship between spirituality factors and the QoL of CHD patients. Previous research is still limited and there is not enough evidence to support that spirituality is important for CHD patients. Through this research, this problem can be answered considering that the incidence of CHD is increasing in Indonesia, especially at Adventist General Hospital, Medan.

A survey conducted at Adventist General Hospital, Medan found that the number of hospitalizations for CHD patients has increased in the last five years from 2018 to 2024, there were 89 hospitalized patients permonth. Health workers or nurses at Adventist General Hospital, Medan, have not identified the level of spirituality and QoL

of CHD patients. The role of nurses is very important in the recovery of CHD patients at Adventist General Hospital, Medan. Because the research data is still insufficient to support whether spirituality is related to the QoL of CHD patients, therefore, the researcher aims to identify the relationship between the two variables. The results of this study can be used by policy makers as supporting data to compile and develop nursing interventions to improve the QoL of CHD patients from a spiritual aspect at Adventist General Hospital, Medan.

#### 2. Methods

## 2.1 Research design

This study was descriptive correlational with a cross-sectional design.

## 2.2 Setting and samples/participants

This research was conducted in November - December 2024, CHD patients were recruited from the inpatient ward at Advent General Hospital, Medan. Participants were selected using purposive sampling technique with inclusion criteria: 1) hospitalized CHD patients, 2) no impaired consciousness, 3) adult patients, 4) able to read and write, 5) participants who were unable to complete the questionnaire at the time of the study were excluded. The sample size in this study was calculated based on the minimum estimated population per month, where the average number of hospitalized CHD patients per month was 89 patients. Therefore, the number of samples in this study was at least 89 patients.

## 2.3 Measurement and data collection This study used two instruments:

Alpha value of this measuring instrument is: 0.90 (18).

- 1. to measure the spirituality variable, the Daily Spiritual Experience Scale (DSES) was used (16). The DSES questionnaire consists of 16 question items, with 6 Likert scale answer choices, namely for question items 1-15, the score is: 1= Never 1, 2= Occasionally, 3 = Several days, 4 = Almost every day, 5 = Every day, 6 = Many times a day. For question item 16, the score is: 1 = Not at all, 2 = Somewhat close, 3 = Close, 4 = Very close, 5 = As close as possible. The highest score is 95 and the lowest score is 1. The higher the score, the higher the spirituality. This questionnaire is available in Indonesian (17). The Cronbach's
- 2. to measure the quality of life variable, the Indonesian version of the Quality- of-Life Index was used (19) This questionnaire consists of two parts, namely the satisfaction section and the importance item. The number of questions consists of 33 items with 6 Likert scale answer choices, from 1 (dissatisfied) to 6 (very satisfied) for the satisfaction section, while the importance section is from 1 (very unimportant) to 6 (very important). The satisfaction score is weighted by the appropriate importance score. The total score ranges from 0 to 30, with higher scores indicating a better quality of life. This instrument has a Cronbach's alpha value of 0.965 (19). This questionnaire has been distributed to 89 participants who met the criteria, no participants withdrew. Consent to become respondents has been received from the participants.

## 2.4 Data analysis

SPSS version 26.0 has been used to process the data, and the Spearman Rank test has been used because the data is not normally distributed. Spearman Rank Correlation with a confidence level of 95%, Alpha: 0.05.

## 2.5 Ethical considerations

This study takes into account the rights of the participants, the consent of the participants has been obtained, and the participants are free to withdraw from this study without any penalty. This research has been approved by the Health

Research Ethics Committee of Sari Mutiara Indonesia University with Number: 2839/F/KEP/USM/VI/2024.2

## 3. Results

Participants involved in the study were predominantly male (74.2%), aged between 45-56 years (51.7%) and self-employed (61.8%). The spiritual level of participants was low at 59.6%, and the quality of life of participants was low (52.8%).

Table 1. The Characteristic of Patients with CHD, spirituality, and Quality of Life (N=89)

Variable	n	%
Gender		
Male	66	74.2
Female	23	25.8
Age (Year)		
45-54	46	51.7
55-65	40	44.9
66-74	3	3.4
<b>Employee status</b>		
Self-employed	55	61.8
Farmer	7	7.9
Civil servants	22	24,7
Retired	5	5.6
Spirituality		
High	36	40.4
Low	53	59.6
Quality of Life		
High	42	47.2
Low	47	52.8

The results of the Spearman Rank Correlation test obtained a value of R = -0.533; P-Value = 0.001 < 0.05, meaning there is a strong relationship between spirituality and the quality of life of CHD patients. If the spirituality value is low, the quality-of-life value is also low.

Table 1. Correlations between spirituality and Quality of Life of patients with CHD (N=89)

Variabel	n	%	r	P-Value
Spirituality				
High				
36 40.4				
Low	53	59.6	-0.533	0.001
Quality of Life				
High Low				
P-Value = 0.05				

## 4. Discussion

The results of this study prove that spirituality is significantly correlated with the quality of life of CHD patients. If the spirituality value is low, the quality of life of CHD patients is also low. The results of this study support the results of previous studies that there is a relationship between spirituality and the quality of chronic patients (13). Spirituality is related to the spirit to obtain hope and belief and the meaning of life (20);(21).

Spirituality has a high spiritual-psychological aspect regarding the future and improving health (21). CHD patients need physical, mental, social, and environmental comfort, so that they can feel happy and optimistic, which plays a role in the healing process (22);(1). The spiritual aspect is important in health (14). In the research of Superkertia et al., (9) it was found that patients who have a low level of spirituality also have a low quality of life. Another study conducted by Munawarah, (10) on 38 elderly people found that elderly people who have high spirituality have a good quality of life. Also, research by Murwani, (12) found that there is a relationship between the level of spirituality and the level of quality of life of chronic disease patients. In this case, the role of spirituality is the patient's coping mechanism towards the recovery process (15).

Patients with chronic diseases such as heart disease require routine treatment over a long period of time (20). In the end, the patient will realize that the disease is not getting better, the patient refuses treatment and does not accept the disease he is suffering from (20). In addition, patients are upset, blame other people, doctors, including blaming God (18).

Given the large role of spirituality in the health of chronic patients such as CHD patients, it is important for health service providers to develop interventions to support the spirituality of CHD patients so that the quality of CHD patients improves.

#### 5. Conclusion

CHD patients who have low spirituality scores also have low quality of life scores. Spirituality is strongly related to the quality of life of CHD patients. Health care providers or nurses can develop strategies and interventions to improve the quality of life of CHD patients by providing spiritual support to CHD patients.

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