

## The Relationship Between Knowledge Level and Illness Perception in Patients with Congestive Heart Failure

Gusti Pandi Liputo<sup>1</sup>, Nurdiana Djamaluddin<sup>1</sup>, Reka Afrilia Tanaiyo<sup>1</sup>

<sup>1</sup>Nursing Department, Universitas Negeri Gorontalo, Indonesia

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### ABSTRACT

*Background: One of the factors that can influence the severity of congestive heart failure is how the patient perceives their illness. The level of knowledge about the disease plays an important role in the development of illness perception. Objectives: The purpose of this study is to determine the relationship between the level of knowledge and illness perception in patients with congestive heart failure at the Cardiology Clinic of Prof. Dr. H. Aloei Saboe General Hospital, Gorontalo City.. Methods: The research method used a cross-sectional design with a quantitative research type. The population in the study consisted of all 392 outpatients with congestive heart failure. The sample was taken using the Purposive Sampling method, with a total of 80 samples. The research instrument used was a questionnaire. Results: The study results found a relationship between the level of knowledge and illness perception in patients with congestive heart failure. The statistical test results using the Chi-Square test showed a p-value of 0.000 ( $< 0.05$ ). Conclusion: Respondents with a good level of knowledge predominantly exhibited a positive illness perception. This study can contribute to improving knowledge about congestive heart failure.*

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#### Corresponding Author:

**Gusti Pandi Liputo**

Nursing Department, Universitas Negeri Gorontalo, Indonesia

Email: [gusti@ung.ac.id](mailto:gusti@ung.ac.id)

## 1. INTRODUCTION

Congestive Heart Failure (CHF) is a cardiovascular disease with a continuously increasing prevalence (Sinaga et al., 2023). CHF is a condition where the heart is unable to pump sufficient blood to meet the body's metabolic needs (forward failure) or when the pressure during heart filling is too high (backward failure) (Nurkhalis, 2020). According to the Global Health Data Exchange (GHDx) in 2020, the prevalence of CHF increased to 64.34 million cases, with a mortality rate of 9.91 million (Lippi & Gomar, 2020). Based on data from the World Health Organization (WHO) in 2022, cardiovascular disease is a global health issue that claims approximately 17.9 million lives each year, accounting for 32% of all deaths worldwide, with an estimated 85% of these deaths caused by heart failure. Data from the Indonesian Ministry of Health in 2018 regarding the prevalence of cardiovascular diseases, including CHF, showed a rate of 1.5%, which is approximately 1,017,290 cases diagnosed by doctors in Indonesia. The 2018 Riskesdas report for Gorontalo Province indicated that Gorontalo ranked second in overall heart disease prevalence, with a rate of 2%, or about 10,997 people.

Congestive heart failure is a disease with a poor prognosis, as it can lead to various health problems that worsen and negatively impact the patient's quality of life (Siallagan, 2023). One factor that can influence the deterioration of a CHF patient's condition is illness perception (IP), which manifests as both positive and negative

emotional reactions. Positive or negative illness perception can be influenced by several factors, as mentioned by Swarjanna (2022). These factors include: physiological factors, expectations, cognitive abilities, social roles, and membership in cultures and social communities.

A case study conducted by Yunita et al. (2020) revealed that many patients experienced recurrent admissions due to CHF. The analysis found that the majority of patients with congestive heart failure had a low level of knowledge about complication prevention, with 46.7% categorized as having insufficient knowledge. This is considered due to a lack of knowledge. Therefore, the level of knowledge is crucial and more dominant in shaping an individual's behavior, which is influenced by various factors such as experiences, human interaction with the environment, and manifested in attitudes, actions, and knowledge (Muladi & Sabi, 2020). Hence, assessing a patient's level of knowledge can gauge their understanding in perceiving the disease. Illness perception is an instrument designed to help patients understand their illness from a psychological perspective (Sawyer et al., 2019). Illness perception is an emotional response related to the illness one is experiencing. Even if an individual has a good level of knowledge, they may have their own unique way of perceiving the disease (Fiqriyah & Hidiyawati, 2023).

Interviews conducted by the researcher with 10 respondents who have congestive heart failure at the Cardiology Clinic of Prof. Dr. H. Aloe Saboe General Hospital in Gorontalo City revealed that 6 respondents had a negative perception of their illness. These respondents expressed that they were still unsure about assessing the severity of their condition and had high levels of concern about their illness. On the other hand, the remaining 4 respondents had a positive perception of their illness. They reported that their condition had improved with regular treatment and that they were able to manage their disease effectively on their own.

## 2. RESEARCH METHOD

The research method used a quantitative research type with a cross-sectional design. The study was conducted on outpatients at the Cardiology Clinic of Prof. Dr. H. Aloe Saboe General Hospital in Gorontalo from February 20 to February 29, 2024. It employed an analytical correlational research method with a cross-sectional design. The sampling technique used was accidental sampling, and the sample size was determined using Slovin's formula, resulting in a sample of 80 respondents. The research instrument used was a questionnaire.

This study consists of two variables. The first variable, the level of knowledge, refers to the respondents' understanding of various aspects related to cardiovascular disease, including its characteristics, prevention, age, risk factors, and behavioral risk modification. The second variable, illness perception, refers to how heart disease patients perceive and interpret their illness, which is measured using nine indicators: consequences, timeline, self-control, treatment control, identity, concern, coherence, emotional representation, and causal representation.

## 3. RESULT AND DISCUSSION

Table 1. Respondent Characteristics

Distribusi frekuensi	F	%
<b>Age</b>		
26-35	2	2.5
36-45	4	5
46-55	17	21.3
56-65	37	46.3
>65	20	25
<b>Gender</b>		
Female	31	38.8
Male	49	61.3
<b>Education</b>		
Not attending school	2	2.5
Elementary school	15	18.8
Junior high school	10	12.5
High school	34	42.5
Bachelor's degree	19	23.8
<b>Long diagnosed (year)</b>		
< 1	21	26.3
1-5	52	65
6-10	3	3.8
>10	4	5

Based on Table 1, the frequency of respondents who were sampled in the study by age shows that the majority of respondents were aged 65-75 years (Late Elderly), totaling 37 respondents (46.3%). Furthermore, based on gender, the data shows that the majority of respondents were male, totaling 49 respondents (61.3%). In terms of the last education level, more than half of the respondents had completed high school, totaling 34 respondents (42.5%). Based on the duration of diagnosis, the majority had been diagnosed for 1-5 years, with 52 respondents (65%).

Table 2. Distribution of respondents based on Knowledge Level

Knowledge Level	F	%
Good	58	72.5
Insufficient	22	27.5
Total	80	100

Based on Table 2, the frequency of respondents sampled in the study by Knowledge Level shows that the knowledge level is predominantly in the 'good' category, with 58 respondents (72.5%).

Table 3. Distribution of respondents based on Illness Perception

Illness Perception	F	%
Positive	36	45
Negative	44	55
Total	80	100

Based on Table 3, the frequency of respondents sampled in the study by illness perception shows that the majority of respondents have a negative illness perception, with 44 respondents (55%).

Table 4. Analysis of the Relationship Between Knowledge Level and Illness Perception

Knowledge Level	Illness Perception				F		P value
	Positive		Negative				
	n	%	n	%	n	%	
Good	36	45	22	27.5	58	72.5	0.000
Insufficient	0	0.0	22	27.5	22	27.5	
Total	36	45	44	55	80	100	

Based on Table 4, it shows that out of 80 outpatient respondents at the cardiology clinic, 36 respondents (45%) with a good level of knowledge have a positive illness perception. Meanwhile, 22 respondents (27.5%) with a lacking level of knowledge have a negative illness perception. The Chi-Square statistical test yielded a significant value or p-value (0.000), which is lower than the standard significance level of 0.05 ( $p < \alpha$ ).

The study results indicate a relationship between knowledge level and illness perception among patients with heart failure at the RSUD Prof. Dr. Aloi Saboe cardiology clinic in Gorontalo City. The bivariate test results show that among patients with congestive heart failure, those with a good level of knowledge and a positive illness perception total 36 respondents (45%).

In a study conducted by Yunita et al. (2020), it was stated that the knowledge level in patients with CHF directly affects the severity of the disease, as indicated by their illness perception. Illness perception is how an individual understands and responds to their illness based on their understanding, and it guides them in choosing disease management strategies. It represents the patient's cognitive representation and directly influences their emotional reactions to the medical condition and its potential consequences (Hilmayani et al., 2021). According to Prabowo et al. (2022), individuals with a negative illness perception tend to worry about the outcomes of treatment, feel that the illness will last a long time, experience sadness, and lack motivation to recover, which leads to less effective behavior in managing their illness.

Positive illness perception among respondents is associated with good knowledge, which is influenced by their level of education. This is consistent with the study by Yunita et al. (2020) one of the factors that can influence an individual's level of knowledge is education. Education helps individuals more easily accept new ideas or changes. In this study, the majority of respondents had their last education level as high school, with 34 respondents, and bachelor's degree, with 19 respondents.

Illness perception, also referred to as cognitive representation, is based on the knowledge an individual has and affects the patient's emotional reactions to their illness. According to Sawyer et al. (2019), a positive

perception of illness is associated with better health outcomes, as illness perception is an instrument used to help patients understand their illness from a psychological perspective.

This study also includes respondents with a good level of knowledge who have a negative illness perception, totaling 22 respondents (27.5%). Wulandari & Priyanti (2019) found that individuals who have been diagnosed with a disease may also experience psychological stress. Unpleasant psychological stress caused by life events that are perceived as threatening is known as psychological distress. Distress is a type of negative stress that can adversely affect health. A person who views their illness negatively will directly impact their level of recovery and treatment. The researchers also assume that some respondents who understand heart disease may interpret it as a threat to their life, making it dangerous to ignore treatment. However, this often becomes a mental burden for the patients. The level of education affects respondents' knowledge, which is reflected in the 'lacking' category in the questionnaire. In this study, respondents with the last level of education being elementary school (SD) totaled 15 respondents (18.8%), and those with no schooling totaled 2 respondents (2.5%).

Knowledge level significantly affects illness perception in patients with congestive heart failure. A good level of knowledge is more likely to result in a positive illness perception, which can improve health outcomes. Conversely, individuals with a lower level of knowledge are more likely to have a negative illness perception, which can worsen their condition due to ineffective disease management.

#### 4. CONCLUSION

Based on the results of the study on the relationship between the level of knowledge and illness perception among patients with congestive heart failure at the Cardiology Clinic of Prof. Dr. H. Aloei Saboe Regional General Hospital in Gorontalo City, it can be concluded that most patients had a good level of knowledge, with 58 respondents (45%) categorized as good and 22 respondents (27.5%) categorized as poor. Meanwhile, the analysis of illness perception showed that 36 respondents (45%) had a positive illness perception, while 44 respondents (55%) had a negative perception. Overall, this study revealed a significant relationship between the level of knowledge and illness perception among patients with congestive heart failure at the Cardiology Clinic of Prof. Dr. H. Aloei Saboe Regional General Hospital, Gorontalo City.

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