e-ISSN: 3030-878X

The 5th International Conference on Nursing and Public Health **(ICONPH)**

Acute Coronary Syndrome Prevention Behavior in Coronary Heart Disease Clients

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ABSTRACT

Background: Cardiovascular disease is a condition characterized by abnormalities in the heart and blood vessels. One type of cardiovascular disease is coronary heart disease. Acute coronary syndrome is an advanced condition of coronary heart disease. **Object:** The purpose aims to determine the prevention behavior of acute coronary syndrome at the South Krembangan Health Center. **Method:** Structured surveys and interviews were conducted from February to April 2025. In this study, a descriptive research design was used. The study population consisted of 25 clients, and the sample comprised 25 clients, using a total sampling technique. The variables used are divided into three sub-variables, namely knowledge, attitudes, and actions. Data collection using questionnaires. Data processing techniques use frequency distribution techniques. **Results:** Based on the study's results, it was found that 18 (72%) clients exhibited good behavior, 6(24%) clients showed sufficient behavior, and 1(4%) client displayed poor behavior. **Conclusion:** This study concluded that most clients exhibited good behavior in preventing acute coronary syndrome. However, further efforts are being made to avoid acute coronary syndrome. It is recommended that clients take a more active role in understanding their diseases, while related parties can be utilized to develop health programs. For future researchers, these parties can also serve as data sources and research inputs..

Keywords: Acute Coronary Syndrome, Coronary Heart Disease, Preventive Behaviors

BACKGROUND

Cardiovascular disease is a major health concern worldwide, affecting both high- and low-income countries (Diah et al., 2020). One of its most common forms is coronary heart disease (CHD), a disorder that affects the heart and blood vessels, and can progress to acute coronary syndrome if not properly managed (Sandi et al., 2019; Byrne et al., 2023). In Indonesia, the prevalence of CHD is significant, with 1.5% of the population affected in 2019, and East Java Province reporting the highest number of cases, particularly among individuals aged 65–74 years (Indonesian Ministry of Health, 2020). The high prevalence is associated with risk factors such as unhealthy lifestyles, smoking, alcohol consumption, stress, obesity, lack of exercise, and insufficient intake of fruits and vegetables. CHD impacts not only physical health but also psychological and social well-being, and can lead to death if medical intervention is delayed or if patients fail to manage their risk factors effectively (Rosidawati et al., 2016).

Prevention strategies, including regular exercise, a balanced diet, smoking cessation, and stress management, play a crucial role in reducing the risk of acute coronary syndrome (Wijayanto, 2019; Ma et al., 2022). Nurses and healthcare providers also have an important role in educating patients and promoting adherence to treatments such as Isosorbide

Dinitrate (ISDN) to prevent recurrence of heart attacks (Jayatama et al., 2024; Wiseva et al., 2023). The Indonesian government has further supported prevention through public education, improved healthcare access, and clinical guidelines. Understanding patient behavior, knowledge, and attitudes toward CHD is therefore critical for developing effective prevention strategies and improving health outcomes, making this research highly relevant in the broader field of cardiovascular health and public health interventions.

RESEARCH METHODS

This study employs a descriptive research design. The population of this study consisted of 25 coronary heart disease clients in the last 2 months. In this study, a sample of 25 coronary heart disease clients was taken from the Krembangan Selatan Community Health Center in Surabaya. This study used total sampling, where the sample size was equal to the population. The variable in this study was a single variable, namely the behavior of preventing acute coronary syndrome in coronary heart disease clients jantung Instrument koroner. Data collection used a questionnaire form. The questionnaire in this study contained 20 questions, divided into positive and negative questions. After the data was collected, data processing was conducted, including editing, coding, scoring, and tabulating. The research ethics used informed consent, anonymity, and confidentiality.

RESULT AND DISCUSSION

General data in this study includes gender, prior knowledge, and source of information

Table 1.

Distribution of Characteristics of Coronary Heart Disease Respondents at the Krembangan Selatan Community Health Center in Surabaya from February to April 2025

Characteristics	Frequency	Percentage (%)
Gender		
Men	13	52
Women	12	48
Age		
40-65years	12	48
66-90 years	13	52
Education		
Elementary	6	24
Junior High School	8	32
High School	9	36
STRATA	2	8

Table 1. shows that the majority of coronary heart disease clients are male,

with 13 clients (52%). The majority of coronary heart disease clients are aged 66-90 years, with 13 clients (52%). The educational background of the clients shows that most of them have a high school education, with 9 clients (36%).

Table 2.

Frequency Distribution of Respondents Based on Knowledge of Acute Coronary Syndrome Prevention at the Krembangan Selatan Community Health Center in Surabaya in February April 2025

Knowledge	Frequency	%
Good	22	88%
Fair	2	8%
Insufficient	1	4%
Total	**25**	**100%**

Table 2. shows that the average number of clients with good knowledge was 22 with a percentage of almost all (88%).

Table 3

Frequency Distribution of Respondents Based on Attitude of Acute Coronary Syndrome Prevention at the Krembangan Selatan Community Health Center in Surabaya in February April 2025

Atitude	Frequency	%
Good	13	52%
Fair	11	44%
Insufficient	1	4%
Total	**25**	**100%**

Table 3. shows that the average good attitude was found in 13 clients with a majority percentage (52%).

Table 4.

Frequency Distribution of Respondents Based on Acute Coronary Syndrome Prevention Measures at the Krembangan Selatan Community Health Center in Surabaya from February to April 2025

Action	Frequency	%
Good	12	48%
Fair	11	44%
Insufficient	2	8%
Total	**25**	**100%**

Table 4. shows that the average number of good actions was 12 clients, with a percentage of almost half (48%).

Table 5.

Frequency Distribution of Respondents based on Acute Coronary Syndrome Prevention Behavior at the Krembangan Selatan Community Health Center in Surabaya from February to April 2025

Behavior	Frequency	%
Good	18	72
Enough	6	24
Lacking	1	4
Total	**25**	**100**

Table 5. shows that the average good behavior was found in 18 clients with a majority percentage (72%).

Discussion

The results of the study indicate that the levels of knowledge, attitudes, and behaviors of coronary heart disease clients regarding the prevention of acute coronary syndrome (ACS) vary, although the majority of clients demonstrate good knowledge and behavior. This suggests that clients with good knowledge tend to understand the risks of coronary heart disease and

implement preventive measures, such as regulating their diet, exercising, and adhering to prescribed medication. Positive attitudes and good behaviors support compliance with treatment and a healthy lifestyle, which aligns with the initial hypothesis that knowledge and attitudes influence preventive behavior.

These findings are consistent with previous studies showing that continuous education, family support, and guidance from healthcare workers improve client compliance and reduce the risk of complications (Rahmawati et al., 2020; Wicaksono et al., 2024; Putri & Sari, 2021; Susanti, 2019). However, some clients still show moderate to low levels of knowledge, attitudes, or behavior, indicating barriers such as low motivation, limited health literacy, and insufficient social support, which hinder optimal preventive actions (Utami et al., 2024; Darussalam et al., 2023; Wang et al., 2025).

Practically, these findings emphasize the importance of ongoing education programs for coronary heart disease clients that focus not only on knowledge but also on fostering changes in attitudes and behaviors through guidance, family support, and a supportive environment. Theoretically, this study reinforces the concept that knowledge and attitudes are determinants of health behavior, suggesting that behavior-based interventions can improve treatment adherence and prevent complications. The results can inform public health strategies, such as community education programs, hospital-based ACS prevention guidelines, and family-centered interventions to support behavioral change among clients.

This study has several limitations that should be considered. First, the cross-sectional design limits the ability to assess long-term behavioral changes. Second, the sample was limited to one area with a small number of clients, which may affect the generalizability of the findings. Third, data on attitudes and behaviors were obtained from self-reported client responses, which may introduce reporting bias. These limitations can be addressed in future research by using a longitudinal design, expanding the study area and sample size, and incorporating direct observational data to enhance the validity of the findings.

CONCLUSION

This study shows that most coronary heart disease clients have good knowledge, attitudes, and behaviors regarding the prevention of acute coronary syndrome (ACS), although a small portion still exhibits moderate to low levels of knowledge, attitudes, or behaviors. These findings highlight the importance of increasing client understanding through continuous education, regular consultations with healthcare professionals, and family support, enabling clients to consistently implement preventive measures such as diet regulation, exercise, and adherence to medication. The results of this study can serve as a reference for developing health programs and more effective intervention strategies for ACS prevention, as well as provide data and guidance for future research.

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