

Supportive-educative needs of patients with coronary heart disease: An investigation of clinical nurses

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Abstract

Background: The rising prevalence of coronary heart disease (CHD) has highlighted the need for supportive-educative efforts, particularly in nursing. These initiatives are crucial for improving self-care management in CHD patients, enhancing their quality of life. Clinical nurses are key in this role, leveraging their direct patient interaction and expertise to provide tailored education and support.

Purpose: This study aimed to investigate the supportive-educative needs of CHD patients from the perspective of clinical nurses.

Methods: A descriptive qualitative study was conducted for this research. Participants included 30 clinical nurses responsible for caring for CHD patients in both inpatient wards and outpatient polyclinics. Interview guidelines were utilized to collect data through in-depth interviews, triangulation, and the obtained interview data were analyzed using the thematic analysis approach.

Results: We identified four themes related to the supportive-educative needs of CHD patients: 1) engaging and informative media; 2) culturally sensitive approaches; 3) nurses' attitudes; and 4) family empowerment.

Conclusion: Supportive education, tailored to the needs of CHD patients, is vital for effective disease management. This study's findings highlight the importance of incorporating four key elements into supportive education: engaging and informative media to enhance learning, culturally sensitive approaches to address diverse patient needs, the positive impact of nurses' empathetic attitudes, and the empowerment of families in the care process. Integrating these aspects can significantly aid CHD patients in developing self-care skills that positively influence their quality of life.

Keywords: coronary heart disease; education; supportive; nurse

Introduction

Coronary heart disease (CHD) is characterized by impaired blood vessels that cannot deliver enough oxygen to the heart muscle (NHS, 2023). The prevalence of CHD has been increasing annually, as reported by the World Health Organization (WHO, 2021). Moreover, the rate of CHD recurrence has risen and patients' quality of life has declined (Komalasari et al., 2019; Peters et al., 2021). In addition to lifestyle factors, patients' level of knowledge regarding self-care management of CHD is a critical factor (Ammouri et al., 2016). Lack of awareness and understanding have a direct impact on disease severity (Suarningsih & Suindrayasa, 2020). Numerous efforts have

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been made to enhance knowledge and self-care in the context of CHD management (Jamaludin et al., 2019; Reid et al., 2013), but the outcomes have yet to reach their full potential. Therefore, in this study we seek to address this issue by identifying patients' supportive-educative needs from a nurse's perspective.

The research literature predominantly emphasizes education as a means of fostering individuals' self-management in the context of diseases (Coster & Norman, 2009). Nevertheless, it is crucial to recognize that education alone may not be enough, as support plays a vital role in developing self-care agency. Moreover, it is important to avoid overshadowing support with an excessive focus on education. According to Orem (2001), supportive-educative systems encompass various forms of assistance, including support, guidance, creating a nurturing environment, and teaching. These systems aim to enhance knowledge, skills, and understanding, and to promote well-being and self-care (Nuraeni et al., 2018; Rehana et al., 2022). Supportive education can be applied in various contexts, including healthcare, where it is often used to empower patients and their families in managing health conditions, making informed decisions, and adopting healthy behaviors (Armer et al., 2009). In the context of nursing, supportive education may involve providing information, counseling, guidance, and resources to individuals or their families to improve health outcomes and promote self-care (Orem, 2001).

The growing prevalence of coronary heart disease (CHD) in the population has heightened public awareness, particularly among nurses. This has underscored the critical need for supportive-educative initiatives. Such support is essential because it significantly enhances self-care management in patients, thereby improving their quality of life. Clinical nurses are pivotal in delivering this support due to their direct and continuous patient interaction, their expertise in patient care, and their ability to personalize education based on individual patient needs. Previous studies have highlighted the

positive impact of supportive education on various aspects, including self-care abilities (Armer et al., 2009), activities of daily living (Purnamawati et al., 2020), and even sexual disorders among patients with heart problems (Rehana et al., 2022). The current study fills a gap in that it is the first to adopt a qualitative approach to explore the supportive-educative needs of patients with CHD. In addition, we identify the impact of culture and beliefs on the supportive-educative needs of CHD patients. Furthermore, there is a dearth of research examining nurses' perspectives regarding the supportive-educative needs of patients with CHD. Therefore, we examined nurses working in hospital cardiac units to gain insights into their perceptions of the supportive-educative needs of patients with CHD.

Materials and Methods

Design

In this study, we chose a descriptive qualitative approach in order to delve into the information in detail. This approach is considered effective in exploring the specific needs of CHD patients concerning supportive education from the perspective of nurses. The researchers involved in this study have backgrounds in medical surgical nursing and experience in qualitative research. Moreover, there is no prior relationship between the researchers and the participants, ensuring the naturalness of the data obtained. In designing this study, we adhered to the Standards for Reporting Qualitative Research (SRQR) guidelines (O'Brien et al., 2014).

Sample and setting

The study was carried out at a government hospital in Palembang, Indonesia, between April and June 2023. Clinical nurses who work in hospitals and had a minimum of one year experience treating patients with CHD and at least a Diploma III in nursing education were selected to participate in this study. The participants were chosen using purposive sampling from inpatient rooms and outpatient

Table 1. Characteristics of Participants (n = 30)

Characteristics	Mean ± SD
Age (Mean ± SD)	35.6 ± 5.4
Gender n (%)	
Male	7 (23.3)
Female	23 (76.7)
Education Level n (%)	
Diploma in nursing	17 (56.7)
Nurse professional	13 (43.3)
Length of Work in Hospital (Mean ± SD)	11.3 ± 5.9
Length of Work in Cardiac Unit (Mean ± SD)	5.8 ± 4.1

Table 2. Distribution of themes and sub-themes

Themes	Sub-Themes	Quotes
Engaging and informative media	Importance of using interesting media	Q1: "Based on my observation, I've noticed that many patients have difficulty understanding and show reluctance in reading the provided leaflets if they are not engaging or interesting." (N1) Q2: "We have found that including more pictures in the educational materials generates greater interest among patients and makes it easier for us, as nurses, to explain to both patients and their families..." (N7)
	Easy-to-understand language	Q3: "On occasions, I, as a nurse, take time to carefully select language that patients, particularly elderly ones, can easily comprehend. It is crucial to provide explanations that are easily understandable..." (N5). Q4: "In my view, the use of simple and understandable language is of utmost importance... employing the local language is not an issue; what matters most is ensuring that the patient comprehends and can grasp the information." (N10).
Culturally sensitive approaches	Challenges for nurses related to cultural beliefs	Q5: "At times, it can be extremely challenging to alter a patient's conflicting beliefs that contradict medical knowledge. For instance, some patients believe that consuming chicken hearts can cure their illness. Yet from a health perspective, excessive consumption of chicken offal can raise cholesterol levels. Dealing with such situations can be very difficult, as patients may feel frustrated by their conflicting beliefs." (N19) Q6: "Older adult patients residing in rural areas often have difficulties accessing updated health-related information. They tend to place more trust in traditional healers or shamans than in healthcare professionals." (N22)
	Respect for diversity	Q7: "Understanding various cultural backgrounds and beliefs is essential for us as nurses, as it equips us with valuable knowledge that we can use to share information with other patients in the future." (N25) Q8: "I acknowledge the patient's belief. As long as it does not pose any danger, we can consider accommodating their beliefs." (N17)
	Inclusion of traditional practices	Q9: "There was a patient who shared a belief received from a local traditional healer, suggesting it could aid in recovery from the illness. I advised that if it does not pose any harm, the patient could proceed with caution and under monitoring." (N15) Q10: "The patient mentioned that local cultural beliefs discourage coronary heart disease (CHD) patients from bathing in the river at night based on the belief that a demon might consume their heart. I corrected the information, explaining that bathing in the river at night could lead to hypothermia and cause the patient to experience shortness of breath." (N21) Q11: "I once encountered a patient who shared a story about a local traditional healer who prohibited heart disease patients from sleeping on their backs, instead suggesting that they sleep in a sitting position and consume a significant amount of chicken." (N3)
Nurse attitudes	Importance of positive and engaging attitudes among nurses	Q12: "During health education sessions or at time of discharge, patients prefer information that is not overly serious. They appreciate a lighthearted approach and enjoy humor." (N20) Q13: "Patients are more receptive and happy to listen when nurses smile, are young, attractive, and intelligent." (N8)

Themes	Sub-Themes	Quotes
Family empowerment	Involvement of family members in health education and support	Q14: "Involving families in health education is of utmost importance since it is the family members who will be responsible for caring for the patients at home. Therefore, as nurses, we must include family members as part of the support system to aid in the patient's recovery." (N10) Q15: "Certainly, we will also engage family members. We provide extensive education to the patient's family about the illness. This can be particularly challenging when the patient is elderly." (N19)
	Challenges in engaging families from remote villages	Q16: "At times, it can also be challenging to engage the families of patients from remote villages. The patients and their families may not fully understand the information provided, so we need to take a slower approach in delivering the information." (N11) Q17: "I sometimes feel sympathy for the families of patients who live far away from the hospital. They have to make multiple trips back and forth. Therefore, in the outpatient polyclinic section, we have established a consultation service for the patient's family to address their concerns." (N9)

Q: quotes; N: nurse

polyclinics specializing in heart conditions. The heads of the respective departments recruited the participants. No participants were unable to complete the research process.

Ethical consideration

This study obtained ethical approval from the Institutional Review Board of Politeknik Kesehatan Palembang, Indonesia (511/KEPK/Adm2/XII/2023). The participants were given a direct explanation of the study and provided their written informed consent. They were told that their participation was voluntary and they were free to withdraw from the research at any time, without providing a reason and without any impact on their health. Moreover, participants had the right to decline answering any questions they deemed inappropriate during the interview. Throughout the interview process, the researcher ensured the privacy of the participants. To maintain confidentiality, the interview data were completely anonymized during transcription, with participants identified by numbers (e.g., N1, N2). The study carried no inherent risk of physical or mental harm to the participants.

Data collection

For the data collection process, in-depth interviews were conducted using an interview guideline. The interview questions were developed collaboratively by three experts, including a medical surgical nurse, an expert in qualitative research, and a nurse who worked in the cardiac unit. Prior to the actual interviews, a pilot study was conducted by interviewing three clinical nurses to test the proposed questions. Minor adjustments to the wording of some questions were made based on the feedback from the pilot study to enhance clarity. The pilot study also provided an opportunity for

the interviewers to familiarize themselves with the interview procedure. This research was carried out over a period of three months by four researchers, without the help of any assistants.

The interview process began by introducing the research to the participants, followed by obtaining their consent and permission to audio-record the interviews. Prior to the interviews, two women and one man who served as interviewers conducted a pre-interview session to align their perceptions about the questions that would be posed to the participants. All three interviewers possess experience in qualitative research. The interviews consisted of questions that addressed the need for supportive education and focused on how to identify problems in order to maximize supportive education efforts for CHD patients from the perspective of nurses. During the interview, participants were asked a series of questions such as 1) In your opinion, who plays a crucial role in providing supportive education to patients with CHD, and why? and 2) In your opinion, what are the challenges faced by CHD patients in accessing supportive education, and how can these challenges be overcome? Each participant was interviewed for approximately 40 minutes. In addition to audio-recording the sessions, the interviewers took notes of their observations. After each interview, the interviewers repeated the participants' responses to ensure response accuracy. To enrich the data, the interview data were triangulated with field work observations (Heath, 2015). In this study, structured observation was implemented, and participants were aware that they were being observed. Participant recruitment ended when data saturation was reached, meaning that collecting additional data was unlikely to provide new insights or information. Data saturation was determined by the researchers, who met and considered the results of the preliminary data analysis. Another

triangulation method entails involving more than one researcher. In this study, four researchers were involved in every step of the data analyses.

Data analysis

In this study, the data were analyzed using NVivo 12 software (QSR International) for coding and organizing the data obtained from participant quotes and observations. The interview findings were analyzed by a thematic approach involving several stages: 1) becoming acquainted with the data; 2) creating initial codes; 3) identifying themes; 4) reviewing and refining the themes; 5) defining and labeling the themes; and 6) generating the final report (Braun et al., 2006). During the data collection and analyses, peer debriefing meetings were held to support the process.

Results

Participants in this study included 30 clinical nurses, with a mean age of 35.6 (± 5.4). Additionally, more than two-thirds of the participants were women. The majority of participants had an educational background of Diploma in nursing, followed by professional nurses. The participating nurses had worked in the hospital for an average of 11.3 (± 5.9) years and in the cardiac units for an average of 5.8 (± 4.1) years (Table 1).

Four themes and eight sub-themes emerged from analyzing the data of the 30 nurses who participated in this research. The first theme, which focused on engaging and informative media, encompassed the sub-themes of using interesting media and employing easy-to-understand language. The second theme revolved around culturally sensitive approaches, including sub-themes such as the challenges nurses face related to cultural beliefs, the importance of respecting diversity, and the incorporation of traditional practices. The third theme centered on the nurses' attitude, highlighting the significance of a positive and engaging demeanor. Lastly, the fourth theme explored family empowerment, encompassing the sub-themes of involving family members in health education and support as well as the challenges encountered when engaging families from remote villages. For further information and specific details, please refer to Table 2.

Theme 1: Engaging and informative media

This theme highlights the importance of using attractive media and employing easy-to-understand language. Nurses emphasized the significance of using visually appealing leaflets as educational materials, of considering factors such as readability and ease of understanding, and of including attractive pictures. Adopting such an approach can enhance patient interest in reading and facilitate comprehension of the educational content (See Q1-2). Nurses face a challenge in translating medical language into easily understandable terms. Nurses

acknowledged the importance of using language that patients can grasp, particularly considering that many patients are elderly and may have difficulty comprehending complex medical terminology (See Q3-4).

Theme 2: Culturally sensitive approaches

We discovered that nurses need to adopt culturally sensitive approaches when providing supportive education. The first comprises the challenges nurses face related to cultural beliefs. The participating nurses expressed the difficulties they face in bridging the gap between local beliefs and healthcare practices (See Q5-6). The nurses acknowledged that the patients they cared for came from various regions with their own unique beliefs. Therefore, mutual respect is crucial when delivering health information to patients with coronary heart disease (CHD). They also emphasized the importance of maintaining trust without compromising patient health (See Q7-8). The nurses indicated that cultural practices and beliefs that do not worsen the patient's health condition can be considered an intervention approach. Additionally, correcting misinformation and addressing incorrect beliefs is an essential task for nurses (See Q9-10).

Theme 3: Nurse attitudes

In the third theme, we discovered that positive behavior exhibited by nurses is crucial in achieving effective supportive education. The findings showed that nurses who have an attractive appearance and provide information in a less serious and more humorous manner can significantly engage patients in health education (See Q12-13).

Theme 4: Family empowerment

The fourth theme was family empowerment. The results indicated that involving family members in health education as a supportive effort is crucial. The nurses indicated that family members who interact with patients at the hospital assume the role of monitoring the patient's health condition. Therefore, it is necessary to provide accurate and comprehensive health information to family members (see Q14-15). Moreover, this theme also poses challenges for families residing in remote villages. Given the limited understanding and skills of this population group, nurses must patiently and slowly provide information regarding the patient's health. In fact, nurses also offer consultation services for family members who live far from the hospital (see Q16-17).

Discussion

The supportive-educative system discussed by Orem (2001) emphasizes the importance of support, guidance, and education to enhance knowledge and promote effective self-care management. In this study, the participating nurses indicated that meeting the supportive-educative needs of CHD

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patients necessitated the use of engaging and informative media, culturally sensitive approaches, positive nurse attitudes, and family empowerment. Engaging and informative media

The nurses identified engaging and informative media as a crucial supportive-educative need for CHD patients. Within the supportive-educative framework, conveying information effectively is vital. The participants in this study emphasized the importance of using interesting and informative media during health education sessions or when providing discharge instructions. This perception aligns with previous research indicating that informative media can enhance patients' knowledge, subsequently influencing their self-care management of heart conditions (Leutualy et al., 2021). The use of engaging media involves interactive communication between patients and nurses (Alalwan, 2022). One approach to creating appealing media is the use of technology-based patient education, as evidenced by studies on the effectiveness of leaflets with captivating visuals and information, videos, and engaging educational applications (Halldorsdottir et al., 2020; Riegel et al., 2017). Furthermore, incorporating telehealth nursing in the future can provide patients and their families with real-time access to CHD management information, regardless of their location and at any time.

Interesting and informative media play a crucial role in enhancing learning, particularly in the context of patient education. By capturing attention through engaging content, these media types increase patient engagement, leading to better absorption and retention of information (Occa & Morgan, 2022). They are particularly effective in breaking down complex medical concepts into more understandable formats, such as through visual aids like diagrams, videos, and infographics, which can clarify challenging concepts. This is important because people tend to remember visual information more readily than text (Mbanda et al., 2021). Furthermore, diverse media formats cater to different learning styles, ensuring that information is accessible to all patients, regardless of their preferred learning method. The use of interesting and informative media in patient education not only makes the learning process more engaging and understandable but also significantly contributes to better health outcomes by empowering patients with essential knowledge in an accessible and memorable format.

Culturally sensitive approaches

This study reveals that culture and beliefs are fundamental factors influencing individuals' supportive-educative needs. The participating nurses highlighted the significance of incorporating cultural considerations to facilitate effective supportive education. Culture and beliefs are deeply rooted in society and play a crucial role in shaping individuals' perspectives (Kindig et al., 2004; Latif,

2020). By employing a cultural and belief-based approach, nurses can optimize interventions aimed at enhancing self-care management among patients with CHD through supportive education (Liu et al., 2022). Nevertheless, nurses encounter challenges when cultural and belief systems do not align with the healthcare domain. Therefore, adopting culturally sensitive approaches becomes essential for addressing patients' health factors while respecting their cultural context (Hart & Mareno, 2014; Kaihlanen et al., 2019). According to Leininger's (2002) culture care theory, nursing is a profession characterized by both scientific and humanistic aspects. It revolves around understanding and addressing human care phenomena and engaging in caring activities to assist, support, facilitate, or empower patients in maintaining or restoring their health in culturally significant ways. Previous studies have indicated that a cultural approach can enhance the quality of life for patients with heart problems (Osokpo & Riegel, 2021; Urizar & Sears, 2006). Hence, integrating a cultural approach into supportive education can be a valuable consideration.

Culturally sensitive approaches in healthcare education are essential for enhancing learning, especially in diverse patient populations. By recognizing and respecting the cultural differences of patients, these approaches make educational content more relevant and resonant. Patients are more likely to engage with and understand information that reflects their cultural values, beliefs, and practices (Brooks et al., 2019). This sensitivity helps in building trust and rapport between healthcare providers and patients, which is crucial for effective communication and education. When patients feel understood and respected, they are more open to receiving and applying health information. Additionally, culturally sensitive education helps in overcoming language barriers and ensures that health messages are not lost or misunderstood due to cultural nuances (Andrulis & Brach, 2007; Brooks et al., 2019). It also aids in addressing specific health beliefs and practices unique to different cultures, which can significantly impact a patient's approach to healthcare and adherence to treatment plans. By incorporating cultural perspectives, healthcare education becomes not only more accessible but also more effective, leading to better health outcomes and patient satisfaction. In essence, culturally sensitive approaches in patient education acknowledge the uniqueness of each patient, fostering an inclusive environment where all individuals feel valued and understood.

Nurse attitudes

Proper or polite conduct is an essential aspect of supportive education. In this study, nurses disclosed that CHD patients expressed a preference for nurses who exhibited polite conduct. Patients favored nurses with a pleasant, humorous, and engaging personality, as this type of conduct facilitated

acceptance and rapport with the nurses (Ghaffari et al., 2015; Tanay et al., 2014). Consequently, patients were more receptive to the educational process led by these nurses, leading to increased knowledge among CHD patients (Ghaffari et al., 2015). The support provided by nurses who exhibited proper conduct positively influenced patients' mental well-being and expedited their recovery process (Ghaffari et al., 2015). The attitude of nurses significantly influences the learning experience of patients. A positive and engaging approach by nurses fosters a trusting environment, encouraging patients to be more receptive to information and guidance (Iwanow et al., 2021). This supportive system reduces patient anxiety, facilitates open communication, and enhances the overall effectiveness of patient education. Consequently, a nurse's empathetic and enthusiastic demeanor not only improves the retention of health information but also strengthens the nurse-patient relationship, leading to better healthcare outcomes and increased patient satisfaction.

Family empowerment

The family serves as a valuable source of support for patients, primarily due to the emotional closeness shared by family members (Liang et al., 2022). Consequently, family empowerment can have a positive impact on the healing process of CHD patients (Kitko et al., 2020). Supportive education provided by the patient's family can enhance self-care capabilities among individuals with CHD (Dunbar et al., 2008). In this study, nurses highlighted that strengthening the role of the family can aid in the educational process, particularly when patients are at home, and can also facilitate family monitoring of the patient's well-being. Previous studies have consistently indicated that family support yields positive outcomes in improving the quality of life for CHD patients (Kitko et al., 2020; Liang et al., 2022). As emphasized by Orem (2001), family strengthening is a crucial form of support that extends beyond mere knowledge enhancement.

Family empowerment is a key factor in enhancing learning, particularly in healthcare settings. When families are educated and involved in a patient's care, they can provide crucial support, reinforce learning, and help with treatment adherence (Mousaei et al., 2023; Rostaminasab et al., 2023). This is even more significant in the context of engaging families from remote villages, where access to healthcare and education may be limited. Empowering these families involves overcoming challenges such as geographical isolation, limited resources, and potential cultural and language barriers (Ho et al., 2022). By addressing these issues and providing accessible, relevant education, healthcare providers can ensure that family members are equipped to effectively support their loved ones. This holistic approach not only improves patient outcomes but also strengthens the overall health literacy and resilience of remote communities. Therefore, to

enhance supportive education, families should be actively involved in patients' healing by monitoring their condition and providing support and affection that nurses alone may not be able to provide.

Strengths and limitations

This study offers new insights regarding the supportive-educational needs of nurses and CHD patients. The strengths of this study include: 1) its originality, as it explores nurses' perceptions of supportive educative needs in CHD patients; 2) a qualitative study with a relatively large number of participants who have direct experience in treating patients with CHD; and 3) the novelty of the findings, particularly in recognizing the significance of considering patients' culture and traditional beliefs as part of their supportive-educative needs. Nevertheless, this study also has limitations in that it was conducted solely in one hospital and one specific area, resulting in a localized representation of cultural information and beliefs. Conducting research across multiple regions would provide a broader understanding of the diverse cultural contexts and beliefs related to supportive-educative needs.

Conclusion

Exploring the supportive-educative needs of CHD patients is crucial to ensure they receive appropriate support. This study offers valuable insights for both nurses and CHD patients. The findings highlight the significance of utilizing effective media, considering cultural factors, understanding the role of nurses, and involving the patient's family as a vital source of support. These results can be applied by nurses in designing nursing interventions and considering the factors that contribute to the supportive-educative needs of CHD patients. Furthermore, it is important to conduct further research to evaluate the effectiveness of these findings through intervention methods.

Declaration of Interest

None

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