

Nurses' Health Literacy and Patient-Centered Care Competencies in Cardiovascular Disease Management: A Literature Review

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Abstract: The management of cardiovascular diseases (CVDs) is increasingly complex, necessitating improved health management by both patients and providers. This literature review examines the impact of health literacy, patient-centered care, and nurses' competencies in addressing the challenges posed by CVDs. A literature search was conducted using databases including PubMed, EBSCOhost, ResearchGate, and Google Scholar. The search focused on studies published within the last 20 years, using MESH terms and keywords such as "health literacy competency," "patient-centered care," and "nurses." The review emphasizes that higher levels of health literacy in the general population contribute to better overall health, influencing social determinants, health behavior, and health promotion. Limited health literacy is associated with adverse outcomes, including higher medical costs and lower quality health services. Nurses play a crucial role in recognizing the impact of limited health literacy and utilizing universal health literacy precautions. Patient-centered care has demonstrated benefits in managing chronic illnesses like CVDs, improving patient involvement, treatment adherence, and satisfaction. Effective communication, developing partnerships, and health promotion are key objectives in patient-centered care delivery.

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I. INTRODUCTION

The healthcare management of cardiovascular diseases (CVDs) has grown increasingly complex due to advances in medical technology and treatment plans. The disease burden of CVDs remains prevalent, necessitating improved health management from both patients and providers.¹ The rise of global health awareness has placed a greater responsibility on healthcare organizations to alleviate these demands by enhancing healthcare process engagement and the efficient navigation of health-related services.^{2,3} Health professionals' health literacy (HL) and communication skills are significantly influenced by organizational structures and resources.³ This review examines the impact of health literacy, patient-centered care, and nurses' competencies in addressing the challenges posed by CVDs.

II. IMPACT OF HEALTH LITERACY ON PATIENT HEALTH

The literature on health literacy has expanded significantly across various countries, disciplines, and approaches. The concept has evolved from a basic

understanding of health information to a more comprehensive approach aimed at empowering individuals to lead healthy lives.⁴

Initially defined as the ability to understand medical terms and numbers, health literacy now encompasses a complex set of interconnected abilities. These include reading and acting upon written health information, effectively communicating needs to health professionals, and comprehending health instructions. Current discussions emphasize the importance of moving beyond an individual focus to consider health literacy as an interaction between the demands of health systems and the skills of individuals.⁵

The World Health Organization now considers health literacy a major determinant of health, essential for both health status and health behaviors.⁵ It has become a salient public health issue, driving the development of health and social policies⁶ and a focus for future research, action, and health policy debates.

Higher levels of health literacy in the general population contribute to better overall health and strongly influence

social determinants of health, health behavior outcomes, health education, and health promotion.⁵ Individual benefits of health literacy include improved knowledge of risks and health services, better compliance with prescribed actions, increased capacity for independent action, enhanced motivation and self-confidence, and greater resilience to social and economic adversity. These benefits are consistent with cross-sectional studies indicating that good health literacy positively influences health and the ability to navigate the healthcare system effectively⁶, fostering greater self-efficacy in healthcare decision-making, more active involvement in positive health behaviors and health outcomes, social capital development, and lower healthcare costs.⁷

At the community and social levels, functional health literacy increases participation in population health programs, interactive health literacy enhances the capacity to influence social norms and engage with social groups, and significant health literacy improves community empowerment and the ability to address the social and economic determinants of health.

Conversely, limited health literacy is associated with several adverse outcomes. Studies have shown that individuals with poor health literacy often incur higher medical costs and receive lower-quality health services.⁸ Adults with low health literacy have greater difficulty managing chronic conditions and experience higher healthcare expenditures and hospital admission rates.⁹ Furthermore, limited patient health literacy is linked to suboptimal use of preventive services, delays in diagnosis, and increased mortality among adults.¹⁰ Nurses play a crucial role in recognizing the prevalence and impact of limited health literacy, understanding it as a significant barrier to high-quality, safe, and effective care.¹¹ A key responsibility of nurses in health promotion is understanding how health literacy affects individuals' health behaviors and attitudes.

➤ *Health Literacy Competency of Nurses*

While accessing, understanding, and using health information and services is an individual skill, healthcare organizations play a critical role in enhancing the health capacities of the population.¹² Healthcare providers play a major role in comprehending health information, and need strong HL competency to fully grasp, measure, understand, and provide equitable healthcare plans.¹³ This is supported by findings from the first nationwide survey on HL in the Philippines, which indicated that health information from providers may be poorly understood due to limited provider-patient interaction or inadequate communication skills among providers.¹⁴

Nurses' health literacy competency is a key factor in facilitating effective communication between healthcare providers and the public.^{15,16} Higher health literacy competency among healthcare providers, combined with the use of appropriate care plans, is vital for achieving better health outcomes,¹⁷ reducing health information gaps, and preventing health disparities and poor quality of care.¹⁸

Nurses' health literacy competency is often assessed by their ability to use universal health literacy precautions. This approach helps to limit medical errors and improve communication.¹⁹ Implementing these precautions acknowledges that all patients may have limited capacity to understand health information and navigate the health delivery system.¹³ Universal health literacy precautions involve providing understandable and accessible information to all patients by avoiding medical jargon, breaking down information into small, concrete steps, limiting the focus of a visit to three key points or tasks, using teach-back methods, assessing comprehension, and creating a safe space for patients to seek clarification.²⁰ Additionally, printed communication should be written at or below a fifth- to sixth-grade reading level.²¹ Research indicates that patients across all health literacy levels respond positively to healthcare providers who use universal health precautions.²²

However, studies have shown that healthcare providers often have limited health literacy knowledge and are unaware of its significant impact on patient care.^{23,24} There is also underutilization of health literacy assessment tools and strategies, leading to discrepancies in estimating patients' literacy levels and contributing to health disparities.^{24,25,26} Studies in the United States, Canada, and New Zealand have similarly found that healthcare providers frequently underestimate patients' health literacy levels²⁷ and often overestimate them.^{28,29}

Several factors can influence nurses' health literacy skills and practices, including individual characteristics, work tenure, and perceived behavioral control.³⁰ The application of health literacy strategies and techniques is more common among single nurses with 5-10 years of work experience, contract employment, and who have attended retraining courses on patient education. Nurses' perceived behavioral control is also associated with their intention and behavior in using health literacy skills in patient education. Nurses who feel in control of the strategies they implement are more likely to use them consistently and effectively manage potential problems during treatment. A study in South Korea³¹ revealed that nurses who are women, ≥40 years old, married, have master's degrees, are Catholic, hold managerial positions, have ≥20 years of clinical experience, and work in surgical wards tend to have higher health literacy competency.

These limitations in health literacy competency among healthcare providers can be attributed to a lack of training and inadequate national prioritization. Studies indicate that healthcare professionals often lack sufficient training, particularly in addressing the needs of patients with lower health literacy levels.³² Research on undergraduate health literacy education and specific health literacy education for healthcare professionals is also limited.^{33,34} In response, the National Academies of Sciences, Engineering, and Medicine (formerly the US Institute of Medicine) strongly recommends that professional institutions and continuing education programs in health-related fields incorporate health literacy into their curricula and competency development.³⁵

Currently, only a limited number of countries have included health literacy as a national priority.^{36,37} These include Australia, China, Japan, Korea, New Zealand, and the United States. Australia first recognized health literacy as a national priority in 1993. China's National Health Plan, "Healthy China 2030," aims to achieve adequate health literacy in 30% of the population. While Japan does not have a national health literacy plan, it is among the top 10 countries contributing to health literacy research. The Korean National Health Plan 2030 focuses on creating "healthy-friendly environments" and aims for 70% of the population to have adequate health literacy. New Zealand has incorporated efforts to develop a more health-literate workforce.

The United States Department of Health and Human Services has initiated a National Action Plan to Improve Health Literacy. This plan emphasizes raising health literacy awareness among health professionals and organizations by promoting clear communication of expected health behaviors.³⁶ It recommends developing methods to measure the full range of health literacy skills among health professionals and organizations. A commitment to improving health professionals' health literacy skills can significantly enhance healthcare delivery and lead to better clinical outcomes.³⁸

In the Philippines, efforts to improve population health literacy are emerging. In 2010, legislators introduced a Health Literacy Act, though it did not become law. More recently, the Universal Health Care Act was enacted, prioritizing health literacy within health promotion procedures. The Philippine Universal Health Care Act, or Republic Act 11223, was signed in 2019 and planned for implementation in 2020. This aligns with the World Health Organization's global movement focused on financial protection and equity.³⁹ Self-care interventions, which enhance individuals' capacity to make their own health decisions and reduce the burden on the health system, are a key strategy for achieving universal health care.⁴⁰

While the Sustainable Development Goals do not include a specific target for health literacy, increasing health literacy is crucial for achieving the social, economic, and environmental ambitions of these goals.⁴¹ The 2015 Sustainable Development Goals aim to improve global health outcomes and end poverty. The Philippines, with a population of 118 million (the 13th largest in the world) and a significant proportion of families living in poverty,⁴² plays a substantial role in global progress toward these goals.

➤ *Cardiovascular Disease Statistics*

The American Heart Association's 2020 impact goals include improving cardiovascular health, recognizing that addressing health literacy and its implications is a key intervention.⁴³ According to the World Health Organization, cardiovascular diseases (CVDs) remain the leading cause of death globally.⁴⁴ Non-communicable diseases (NCDs) account for 74% of all deaths worldwide, with CVDs responsible for nearly half of these.⁴⁵ The number of CVD-related deaths is expected to rise from 19 million per year to over 23.6 million by 2030.⁴⁶ Populations in low- and middle-

income countries, where resources to address CVDs are most limited, are disproportionately affected.⁴⁵

Coronary artery disease (CAD) is the leading cause of mortality worldwide, with over 4.5 million deaths occurring in the developing world.⁴⁷ In the Philippines, ischemic heart diseases constituted 12.7% of all deaths in 2016.⁴⁸ Elderly patients with multiple comorbidities experience a considerable illness burden and reduced quality of life.⁴⁹ Consequently, the prevention of CVD and the improvement of long-term prognosis after myocardial infarction are critical concerns.⁵⁰

➤ *Impact of Patient-Centered Care*

In the management of chronic illnesses, including cardiovascular diseases, patient-centered care has demonstrated benefits in terms of patient involvement in healthcare decisions and treatment adherence, patient satisfaction, and health outcomes.⁴⁹ A report from the American Heart Association⁵¹ estimated that 2 million major cardiovascular disease events could be prevented annually in the US if all adults achieved high cardiovascular health. Nurses' patient-centered care competency is also recognized as an important factor influencing patient participation.⁵² Therefore, healthcare providers must deliver person-centered care that is tailored to patients' lifestyles and environments.⁵³

The patient-centered care approach has been widely recognized and emphasized by the World Health Organization and government agencies in the United States and Australia, as well as by lobby groups and patient and health policy organizations such as the Joint Commission, the Picker Institute, and the International Alliance of Patients' Organizations.^{54,55}

The Institute of Medicine (IOM) has also advocated for patient-centered care as a means to reduce health inequities resulting from systemic oversights in providing access to care across socioeconomic status, race, and age.⁵⁶ IOM supported the six dimensions of patient-centered care developed by the Picker Institute for Quality Care: respect for patients' values, expressed needs, and preferences; coordination and integration of care; shared knowledge, information, communication, and education; physical comfort; and emotional support.⁵⁷

Reports on patient preferences indicate that effective communication, developing partnerships, and health promotion are the three main objectives of patient-centered care delivery.⁵⁸ Effective communication involves analyzing patients' healthcare experiences by understanding their diseases and illnesses. Building stronger partnerships entails healthcare providers and patients developing mutually agreed-upon care plans. Effective health promotion is characterized by tailoring healthcare plans to patients' past and current health contexts, reducing the risk of treatment failures and ensuring optimal resource utilization.

These dimensions and objectives highlight how patient-centered care enhances patients' capacity and accountability in managing their healthcare. As Beckman & Frankel (1984)

note, "Healthcare workers are reminded that they are operating as guests in their patients' lives and not as hosts in the healthcare organizations in which they work,"⁵⁹ underscoring the importance of the partnership between healthcare providers and their patients.

A patient-centered healthcare system also necessitates an institutional focus on strategies to maintain safety, financial stability, and an excellent work environment.⁶⁰ These include leadership values, human resources policies, continuous measurement of the patient experience, and qualitative methods for gathering improvement ideas.

Continuous progress in healthcare, disease management, technology, and research presents ongoing challenges to the effective practice of patient-centered care.⁵⁷ However, the implementation of strengthened team-based work processes, employee-driven quality enhancement, and care collaboration can improve the professional quality of life and work environment for healthcare workers.⁶¹ When healthcare workers experience high compassion satisfaction and structural empowerment, they have lower levels of burnout, and institutions experience lower turnover and greater financial stability.⁶² These factors significantly improve the relationship between patients and clinicians, positively influencing patient compliance with healthcare plans and enhancing the provision of patient-centered care.

➤ Patient-Centered Care Competency of Nurses

With the growing recognition of patients as active consumers of medical services, the healthcare system has shifted from an expert-driven model to a patient-centered one.⁶³ This shift is achieved through the implementation of patient-centered care competencies, such as effective communication that focuses on patients' values, preferences, and needs. Strong communication among patients, families, and healthcare providers is essential,³¹ and enhancing these patient-centered care approaches can be achieved by incorporating them into nurses' education and competency development.⁶⁴ A study conducted in multiple coronary care units recommend that nursing education should focus on reducing nurses' perceptions of patient involvement as a hindrance and instead emphasize its potential to enrich nursing work and improve patient outcomes.⁶⁵

Various studies have explored patient-centered care competency levels among nurses. A study found that nurses with higher competency in patient-centered care reported more frequent patient participation in their practice.⁶⁴ Their study also indicated that enhancing nurses' competency in patient-centered care and fostering a strong safety climate are crucial for promoting patient participation and ensuring safer healthcare. Another study conducted in South Korea demonstrated a significant positive relationship between health literacy competencies and patient-centered care among nurses.¹⁵

III. CONCLUSION

Cardiac nurses must continuously update and align their practice and education with the latest international evidence

and standards, given the rising number of individuals affected by cardiovascular disease and the significant influence of health literacy and patient-centered care. An international e-Delphi study identified 14 core competencies for cardiac care nurses, including technical, interpersonal, health promotion, evidence-based practice, and management skills.⁶⁶ Health promotion, with a focus on health equity, is a key goal in the implementation of health literacy and patient-centered care competencies.^{58,67} Health equity depends on the alignment of nurses' competencies with patients' needs, as illustrated by the American Association of Critical-Care Nurses (AACN) Synergy Model of Patient Care.⁶⁸ This model emphasizes the development of nursing competencies, including health literacy and patient-centered care, and focuses on patient needs. Cohesiveness is achieved when these needs and competencies align.⁶⁸ Providing accessible healthcare, regardless of individual health literacy, gender, ethnicity, geographic location, and socioeconomic status, is essential for achieving health equity.^{69,70}

In summary, it is imperative to align the demands and complexities of the healthcare system with the skills and abilities of nurses across the continuum of public health and clinical delivery.⁷¹ Nurses are vital in addressing low health literacy through universal precautions. Patient-centered care improves chronic disease management (like CVDs) by boosting patient engagement, adherence, and satisfaction via effective communication, partnerships, and health promotion.

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