



## PREPARING NURSES FOR LEADERSHIP POSITIONS IN THE PREVENTION OF CARDIOVASCULAR DISEASE

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### Abstract:

Cardiovascular nurses are essential in reducing the worldwide burden of cardiovascular disease (CVD) and enhancing the quality of life for both individuals and communities. CVD is a serious global health concern. Cardiovascular nurses need the know-how, tools, and resources necessary to serve as leaders in CVD. In order to prepare nurses for leadership roles in CVD prevention and management, this article discusses the tactics, education, and training that are required. The specialized competencies of cardiovascular nurses working in prevention are specified, building on the basic competencies established by the World Health Organization for health care workers in the twenty-first century. Investing in the development of leadership, system transformation, and cultural competence can further reinforce these. A potent tactic for elevating the profile of cardiovascular nurses and enabling individual nurses to make significant contributions to health system transformation and community involvement in CVD risk reduction is mentoring.

**Keywords:** prevention, leadership, mentoring, competencies, evidence-based practice.

### Introduction:

Cardiovascular disease (CVD) is a major cause of morbidity and mortality worldwide. It is very expensive and has a substantial impact on both individuals and society. Cardiovascular nurses are vital in the fight against the rising burden of CVD, which, like other chronic illnesses, rises in tandem with global demographic and epidemiologic shifts [1,2]. The education and competencies required to equip nurses for a leadership position in CVD prevention are discussed in this article. In order to play such a role, one must frequently question the status quo, advocate for changes to the health system, and encourage and inspire other medical professionals to work toward a common goal of enhancing health and well-being. All cardiovascular ailments, including stroke, will be referred to as cardiovascular diseases for the purposes of this article. For preventative cardiovascular nursing to be effective, leadership is essential. A variety of abilities



and skills are needed to produce a dynamic and long-lasting workforce in CVD prevention. Cardiovascular nurses must possess specialist knowledge in cardiovascular care as well as the ability to assess and apply evidence-based practice (EBP) in frameworks that are appropriate for their culture. Improving CVD outcomes requires developing clinical, scientific, and cultural competence as well as participating in the policy arena.

### **Headship A population's diverse healthcare requirements:**

It must be addressed, including CVD prevention, and effective nurse leaders are essential to forming this system. It is not the same as management to be a leader. Planning, organization, and control define management, whereas leadership inspires and unites people in a common vision that frequently confronts current procedures and systems. Leadership is goal-oriented and tightly tied to group dynamics and team procedures, even if it may also involve management abilities [10,11]. Any organizational level has the potential to be a leader [12], the difficulty lies in identifying and nurturing it.

One who “will provide the skills for the profession to stretch its boundaries and be innovative in the way in which problems are viewed and solved” is described as a transformational leader [13]. Charisma (i.e., the capacity to inspire faith and respect), individual consideration (i.e., treating each worker as an individual), intellectual stimulation (i.e., the capacity to spark creative problem-solving techniques), idealized influence (i.e., the capacity to impart moral values and ethical principles), and inspirational role (i.e., the capacity to set and meet difficult goals and convey a vision of the future) are characteristics of a transformational leader [14]. To achieve improvements in clinical care processes, maximizing the effects of leadership requires a solid balance between effective management and transformational leadership [15]. Thus, at all levels of involvement in the health care system, leadership development is a critical component of cardiovascular nurses' professional development. Whether they are managing a hospital unit or a community agency, conducting basic science research or putting research into practice, seeking and receiving mentorship for leadership, or holding a key membership position on national and international policy-governing bodies, nurses should seek and receive mentorship for leadership [5].

### **Mentoring: a tactic for fostering leadership**

The term "mentoring" is frequently used in the literature to describe a mutually beneficial learning connection between an expert in a field and a relative novice in that field. Through a concept analysis, Stewart and Krueger [18] developed the concept of mentoring in nursing, characterizing it as “a teaching-learning process acquired through personal experience within a one-to-one, reciprocal, career development relationship between 2 individuals diverse in age, personality, life cycle, professional status, and/or credentials.” The majority of research in nursing and other fields has demonstrated the positive effects of mentorship relationships on both the personal and professional levels [8,19,20], though adverse effects are also possible [8, 21].

As with leadership, mentoring should involve all levels of nursing. The qualities of an effective mentor include competence—that is, having knowledge, experience, and the ability to command respect from others—self-confidence—that is, being successful but also willing to share credit for accomplishments and provide access to a professional network of contacts—and commitment—that is, being willing to devote time, energy, knowledge, and experiences to help another person advance their career [20, 22].

### **Essential skills for healthcare professionals in the twenty-first century**

The demographic and epidemiologic imperatives brought on by an aging population and the sharp rise in the number of persons suffering from one or more chronic illnesses provide significant obstacles for health care in the twenty-first century. Cardiovascular disease (CVD) is a major contributor to the burden of chronic illness. This necessitates taking action [1,2,27]. A proactive interdisciplinary team with the requisite skills is needed to develop, implement, and manage chronic care models for the chronically sick [3,4], with prevention serving as a key component [27]. All health professions should incorporate the following five core competences into their curricula: (1) patient-centered care; (2) partnering; (3) quality improvement; (4) information and communication technology; and (5) a public health perspective, according to the WHO [3, 4]. These skills should serve as the overarching framework for all cardiovascular nursing education curricula and postgraduate training, giving nurses and other healthcare professionals a strong foundation on which to build their ability to function as successful agents within the healthcare system.

Patient-centered care describes how medical facilities and treatment protocols are set up to better meet the needs of patients experiencing sickness from their point of view. In order to offer effective treatment, partnering reflects the capacity to collaborate with patients, other providers, and communities. Clarity regarding the desired results, adherence to evidence-based protocols, awareness of potential improvements, and the capacity to assess these endeavors are all necessary for quality improvement. Acquiring the ability to use current technologies to assist patient care is referred to as information and communication technology competences. Lastly, there is a connection between the public health perspective and changing the mindset from one patient at a time to planning treatment for groups of patients. System thinking is also associated with this final ability [3,4], which necessitates changing the emphasis from the individual patient, which is typical in many curriculum. Specific competencies that are connected to certain health professional roles, like CVD-prevention nurses, can be added by using these core competencies as the fundamental framework around which all health care curricula are built.

### **Particular skills needed for preventive cardiology nurses**

It is crucial to determine the precise clinical and educational competences required of cardiovascular nurses in order to prepare them for leadership roles in preventive cardiovascular

practice. The necessary skills for the field of CVD prevention are covered in three recent publications.

The American College of Cardiology assembled a panel of experts from subspecialty cardiovascular nursing organizations in 2006 to prepare an update to the Scope and Standards of Practice for cardiovascular nursing [28]. This document's earlier version, which was released in 1981, served as a framework for the creation of an educational curriculum by defining cardiovascular nursing and outlining its body of knowledge [28]. Despite their wide range of application, the contents of this document offer a template for the practice of cardiovascular nursing. This document proposes a wide range of educational criteria for cardiovascular nurses, including a foundation in anatomy, physiology, pharmacology, nutrition, psychology, and developmental theory [28].

A certification exam for cardiac and vascular nurses was introduced in 2001 by the American Nurses Credentialing Center, the credentialing division of the American Nurses Association. The certification is intended for people who offer "...complete nursing care to patients who have been diagnosed with heart or blood vessel disease or who have been determined to be at risk of heart or blood vessel events. Numerous contexts, such as acute care, ambulatory care, community-based programs, worksite programs, and school-based programs, are used to deliver these services. The practice of cardiac/vascular nursing facilitates the attainment and preservation of optimal cardiac vascular wellbeing [29]. The prior cardiac rehabilitation examination and the vascular nursing examination were combined to create this certification.

A multidisciplinary group of stakeholders was gathered in 2009 under the auspices of the American College of Cardiology Foundation, the American Heart Association, and the American College of Physicians to draft recommendations for competence and training for CVD prevention. The guidelines were intended to be pertinent for "shared responsibility among all health care professionals involved in the care of people at risk of developing CVD," and the working committee included a nurse [31]. The authors discussed the difficulties in operationalizing the prevention of cardiovascular disease (CVD) posed by the rapidly developing body of information, the inadequate delivery of cardiovascular risk reduction in clinical practice, and the barriers associated with patient and provider adherence to recommendations. The following list summarizes the subject areas that are included in these guidelines [31] and is relevant to nursing and this paper.

Pathophysiology and vascular biology of atherothrombosis

It is: The pathophysiology of atherothrombosis serves as the foundation for the development of evidence-based cardiovascular preventative strategies. The pathophysiologic process, from early fatty streak to endothelial dysfunction, plaque formation, and plaque rupture, should be reasonably well understood by the nurse. Acknowledging diabetes as a cardiovascular disease (CVD) and comprehending how insulin resistance affects CVD risk are part of it.

- Research principles and epidemiology: An understanding of population-based health concepts is essential for both integrating the substantial body of knowledge—which includes observational and clinical trial results—into clinical practice and for explaining complicated information to the general public in clinical and community health settings.
- Pharmacology: The nurse needs to have thorough knowledge of the extensive arsenal of pharmaceutical medicines used to lower cardiovascular risk. The ability to advise patients on long-term persistence with therapy is made credible by a solid understanding of pharmacology, regardless of the nurse's prescription power. In order to manage dyslipidemia, hypertension, diabetes, heart failure, thrombosis, and tobacco addiction, one must possess a solid foundation in pharmacology. It's also necessary to be aware of pharmaceutical substances that could raise cardiovascular risk.
- Knowledge of the relationship between genes and environment: The foundation for risk assessment and modification is environment interaction. The nurse must, at the at least, be knowledgeable about the range of hereditary illnesses that raise the risk of CVD and possess the fundamental abilities to obtain an extensive family history.
- Problems with behavior, psychosis, and following rehabilitation: Recommendations: Psychosocial variables like depression influence behavioral changes related to CVD management and risk reduction as well as the pathophysiology of atherothrombosis. One of the main obstacles The challenge facing medical practitioners is honing their abilities in collaborating with patients to modify their behavior over the long run. These abilities are especially important for managing obesity and quitting smoking.
- Sophisticated risk evaluation and sub-clinical disease: Several techniques are available for advanced risk assessment, especially in the field of dyslipidemia, even if the Framingham risk score is still the suggested basic assessment tool. The intricate field of novel risk factors for atherothrombosis, which includes measurements of lipoprotein particle size and density and inflammatory markers, should be understood by nurses. Furthermore, it is necessary to be aware of the data supporting different imaging modalities, such as coronary artery calcium and carotid intima-media thickness measurements, in order to counsel patients about the value of these techniques as risk assessment tools.
- Exercise and nutrition recommendations: An interdisciplinary The best strategy for reducing the risk of CVD is to make use of coaches' expertise in exercise physiology and nutrition. Unfortunately, advertisements concerning dietary changes and physical activity sometimes "default" to nursing due to a lack of funding and problems with reimbursement. Understanding food labels, the importance of functional foods, dietary recommendations for people with diabetes, hypertension, dyslipidemia, and overweight, and the notion of calorie balance are all crucial.

While it is evident that different nurses are needed for staff nursing positions requiring varying degrees of competency than advanced practice or designated leadership roles, the categories identified can provide a helpful common framework. These qualities also make it clear that cardiovascular nurses must be equipped with the knowledge and abilities from the biological and social sciences in order to function in an interdisciplinary setting. Developing fundamental leadership abilities will let all nurses take on important responsibilities in promoting preventive measures around the world.

### **Cultural Competency for Cardiovascular Nurses in Diverse Communities**

Nurses need to become culturally competent in addition to having leadership potential in order to provide high-quality care to patient populations that are becoming more and more varied. Environmental, social, economic, and biological factors influence health outcomes and the risks of CVD [32]. There are few models to prevent cardiovascular disease in racial and ethnic minority populations, despite the fact that cardiovascular nurses are well-positioned to address these concerns. The difficulties in interacting with people who do not belong to the prevailing culture are partly to blame for this. Because doing research in different populations presents methodological obstacles, there has been less study on underrepresented populations, contributing to the limited information available to cardiovascular nurses.

Moreover, the intricate and diverse aspects of tackling health disparities and escalated expenses because of the requirement for translators and translated materials in cross-cultural studies also reduce the ability to involve disadvantaged and vulnerable populations. Cardiovascular nurses must adjust to a variety of socioeconomic and cultural contexts in order to provide equal results. Groups of people's political, religious, and social characteristics are referred to as their culture or ethnicity. These attributes could include things like language, food, attire, customs, family structures, and ethnic or territorial identity [35]. These factors, for instance, are essential to involving communities and people in indigenous populations.

Different cultural, ethnic, and racial groups have varying rates and amounts of CVD risk factors, which calls for focused interventions and raised awareness [37, 38]. The curricula in undergraduate, graduate, and professional development settings need to support cultural competence and an appreciation of other perspectives in order to educate cardiovascular nurses for service in multicultural environments. Cardiovascular nurse leaders ought to provide mentorship to nurses belonging to linguistically and culturally diverse groups in order to optimize individual engagement and ensure that cardiovascular nursing services reflect the cultural makeup of the larger community.

### **Competencies in system transformation and evidence-based practice**

Translating evidence into practice is the means by which patient care goals and the quality of preventive care are advanced. Cardiovascular nurses' leadership responsibilities depend on the application of research findings in practice, which is crucial for enhancing care quality and outcomes [39]. However, EBP implementation has been uneven and sluggish. Integrating current best practice data and information from multiple sources into healthcare practice approaches is a requirement for competency in this field [40]. Clinical trial data, clinical expertise, and evidence experiences, patient conditions, and initiatives for quality enhancement [3]. In order for nurses to contribute to lowering the worldwide burden of CVD through prevention, preventative evidence-based practice (EBP) needs to be established and shown successful in the target population. It is crucial to create evidence-based protocols and guidelines. Evidence can be used to guide a particular method, enlighten a nurse about a particular preventive scenario, or convince decision-makers that policies or practices need to be changed [41]. For instance, research on the benefits of increasing physical activity over sedentary lifestyles for preventing cardiovascular disease [42, 43] could be used to support the removal of obstacles to physical activity in "developed" environments and to include physical activity assessment and counseling for all primary care patients. The advice could be customized based on the patient's age, sex, and ethnicity. More evidence will be produced as these evidence-based strategies are used in particular contexts, assessed, and the outcomes shared.

Several methods can be used to develop EBP, such as systematic reviews of the literature, meta-analyses that include a statistical assessment of the quantitative research that is already accessible, assessments of available evidence reports, and published clinical practice guidelines. A number of models offer helpful direction for creating and evaluating evidence-based strategies. The models differ in some fundamental ways, but they all start with a focused definition of a problem that needs to be solved or a focus for clinical improvement. Next comes an evaluation of the available evidence (a research critique) [44], a determination of the effect, size, or magnitude, possible risks and benefits of implementing the practice, the suitability of the evidence for the target population and environment, and the costs and potential savings associated with the change. It's also critical to take the patient's values into consideration. A plan for carrying out the change, obtaining organizational and transdisciplinary support, and assessing and disseminating the results are further crucial tasks [45].

### **Techniques for gaining clinical expertise and strengthening leadership abilities**

This article's goal was to discuss topics pertaining to the training and education required for leadership positions in CVD prevention. We addressed the educational, leadership, cultural, and research (e.g., EBP) competencies required to equip nurses for leadership positions in lowering the rates of occurrence of CVD and identified mentorship as a critical method. Fostering mentorship relationships is essential for nurses working in academic, clinical,

administrative, research, and other settings. Our efforts and the translation of research into practice should be guided by the WHO competencies for health professional education. Nursing programs must prioritize the development of cultural competency, and clinical locations should be planned to nurture the next generation of nurses and nurse leaders. Being a member of and actively involved in pertinent professional associations offers a wealth of opportunities for networking, knowledge sharing, and developing mentoring relationships. It is possible for nurse leaders in professional organizations to make sure that mentoring programs are encouraged and supported among their nursing colleagues. Future leadership positions in CVD prevention held by cardiovascular nurses will be aided by this pool of future leaders.

### **Conclusion:**

The aging population, the world economic crisis, and the growing nursing shortage create significant challenges for nurses to continue providing high-quality nursing care and positive patient outcomes in both developed and developing nations. It is imperative that nurses have a prominent position in influencing healthcare and social policies, in addition to serving as advocates for disadvantaged and vulnerable populations. To reduce the prevalence of cardiovascular disease (CVD) worldwide, we must step up our efforts to train and coach cardiovascular nurses to become leaders.

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