

GUEST EDITORS' PAGE



The Role of Nurses in Promoting Cardiovascular Health Worldwide



The Global Cardiovascular Nursing Leadership Forum

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Cardiovascular disease (CVD) is a major cause of morbidity and premature mortality in women and men worldwide. During the past 2 decades, the prevalence of CVD and stroke has increased and accelerated in low- and middle-income countries that currently bear the major burden of these chronic conditions (1,2). Although a myriad of both modifiable and immutable factors contribute to the worldwide epidemic of CVD and stroke, accumulated data clearly underscore the important role of life course prevention.

Twelve million nurses form the largest health care discipline managing CVD risk factors and chronic disease globally (3). The American Heart Association (AHA) and the World Health Organization recognize the key role that nurses and other team members play in supporting the goal to reduce death and disability from CVD by 25% in 2025 (4,5). For more than 4 decades, nurses and advanced practice nurses have taken on key roles in managing single and multiple risk factors, including hypertension, smoking, lipids, and diabetes; the sequelae of chronic conditions,

such as coronary artery disease and heart failure, through specialized clinics; and programs in primary care, worksites, and cardiac rehabilitation (6-17). By taking on a primary role as team leaders in providing case management, nurses have proven their capability to not only reduce CVD risk factors, but to also adhere to treatment guidelines and protocols, decrease hospitalization, and reduce morbidity and mortality in those with established disease. Such programs demonstrating improved outcomes and cost effectiveness have been noted in both developing and developed countries (7,18,19) (Table 1).

Compelling data exist that support the role of nursing in CVD and stroke prevention (4). In the early 1990s, the SCRIP (Stanford Coronary Risk Intervention Project) trial demonstrated that nurse-led risk reduction for patients with known CVD resulted in angiographically documented regression of disease and a reduction in clinical events (10). Following this landmark study, numerous clinical trials have documented the important and effective role of nurses in improving adherence to guideline-based medical therapies and lifestyle change (6-11). The Cardiac Hospitalization Atherosclerosis Management Program showed, in patients hospitalized with coronary artery disease, a significant reduction in morbidity and mortality ($p < 0.05$) after 1 year following discharge for those who received nurse-directed case management compared with usual care (17). EUROACTION demonstrated that CVD adherence to guideline recommendations for the primary and secondary prevention of CVD could be improved with

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nurse-directed teams located at hospitals, clinics, and community centers. Their efforts were focused on individuals, families, and communities (11).

Recognizing the individual and collective contributions that nurses have made in CVD and stroke prevention and the promise of empowering nurses as global cardiovascular leaders, the Preventive Cardiovascular Nurses Association (PCNA) initiated the Global Cardiovascular Nursing Leadership Forum (GCNLF). The GCNLF is designed to champion a global nursing movement for CVD and stroke prevention across the lifespan of individuals and families from both developed and developing countries. The inaugural (phase I) meeting was held in New York, New York, in October 2014, and included nurse leaders from Africa, Australia, China, South America, the Philippines, the Middle East, the European Union, the United Kingdom, and the United States. Consistent with the mission and goals of the GCNLF, a major focus of this meeting was to explore ways in which nursing and global nurse organizations could support the cardiovascular risk and stroke reduction goal set by the World Heart Federation, and reaffirmed by the AHA, to reduce noncommunicable disease (NCD) mortality by 25% by 2025 (4,5). Keynote addresses at the inaugural meeting were delivered by Dr. Valentin Fuster, Director of Mount Sinai Heart, and by Dr. Martha Hill, Dean Emerita and Professor of Nursing, Johns Hopkins University. With internationally recognized expertise in prevention, management, and control of global CVD and stroke, Drs. Fuster and Hill both emphasized the importance of multidisciplinary, multisectorial efforts designed to reduce the risk and burden of CVD, particularly in low- and middle-income countries.

Dr. Fuster highlighted elements of the Institute of Medicine report “Promoting Cardiovascular Health in the Developing World,” demonstrating the burden of CVD in low- and middle-income countries, as well as the need for and benefits of multilevel prevention efforts, beginning early in life and extending across the life course (1). In summarizing both ongoing and completed research by assembled multidisciplinary global teams, Dr. Fuster illustrated the importance of basic and translational research designed to prevent and treat CVD and stroke. Outcomes of recent work conducted in Bogotá (20) and Spain (21), as well as research in progress in Kenya (22), illustrated the importance of training of health care professionals in CVD prevention, as well as the potential for multi-level interventions in reducing major risk factors for CVD and stroke in children, adults, and families from diverse communities. Dr. Fuster concluded his address with “a call to action” emphasizing potential

TABLE 1 Nurse Case Management Trials—Summary of Findings

Nursing Intervention	Significant Outcomes
Optimize management of dyslipidemia	Improved measures of dyslipidemia
CVD risk reduction: lifestyle (diet and exercise)	10-year CVD risk reduction
Hypertension (5 E program: Education, Engagement, Environment, Evidence, Evaluation)	Blood pressure, BMI, and weight reduction
Diabetes and hypertension	Blood pressure and diabetes improved
Smoking cessation (education, counseling, and follow-up)	Significant “quit” rate
CVD risk with medication counseling and management	Less CAD progression; all CVD risk factors lowered; decreased Framingham score
CVD risk management cost evaluation	Cost effective

Data from Berra et al. (16).
 BMI = body mass index; CAD = coronary artery disease; CVD = cardiovascular disease.

roles for nurses and nursing in practice, research, and advocacy relevant to CVD and stroke prevention.

Dr. Hill reaffirmed Dr. Fuster’s comments on the magnitude of the global burden of CVD and provided specifics on the rationale for focus on low- and middle-income countries, as well as developed countries. She highlighted global health care challenges, including geographic and economic differences between rural and urban environments, the widening gap between rich and poor (within and among countries), the current domestic unrest and political strife with emerging governments, and the effect of geopolitical, social, and fiscal factors on health policies that affect CVD prevention efforts. As deterrents to global CVD prevention efforts, Dr. Hill also emphasized the shortage of nurses and other health care professionals, as well as barriers to treatment related to patients, providers, and health care organizations. In addressing the optimal role of nurses and nursing in CVD prevention, Dr. Hill emphasized the importance of patient-centered care, evidence-based practice, and quality improvement initiatives; the use of information technology; and effective functioning of nurses as part of interdisciplinary teams. Global opportunities suggested for nurses and nursing were passionately proposed by Dr. Hill including methods and approaches to: 1) enhance the quality of health care services across settings; 2) improve health systems; 3) remove barriers to high-quality care; 4) reduce health care disparities; 5) analyze issues in health care from a global perspective; and 6) take nursing from a local to a global level. Finally, Dr. Hill recommended innovative approaches to effective solutions with an emphasis on creating partnerships to align stakeholder resources, increasing nursing’s capacity and diversity, and redesigning nursing education and practice to optimize prevention. She concluded her “call to action” with the need

for nursing leaders who champion the global CVD prevention efforts to be competent, credible, credentialed, committed, and skilled communicators.

Following the keynote addresses, CVD nurse leaders presented information on the burden of CVD in their respective countries and regions, providing an update on the status of nursing involvement in ongoing and planned CVD and stroke prevention efforts. Individual work groups composed of nurse leaders and the PCNA Board of Directors addressed the challenges and opportunities for nursing in global CVD and stroke prevention. These discussions included ways to optimize and enhance nursing's unique and collaborative contributions to the goals of the World Heart Federation and AHA.

Building on work accomplished in phase I of the GCNLF and earlier work championed and accomplished by PCNA (8,13,16,23-25) (in collaboration with the Council on Cardiovascular Nursing and Allied Professions and the Council on Cardiovascular and Stroke Nursing), short-term goals and activities include developing a global nursing website designed

to: 1) house links to educational resources and archive on-demand courses in CVD risk reduction and stroke prevention (available in several languages); 2) provide access to U.S. and international evidence-based guidelines; and 3) provide access to a registry of CVD and stroke prevention nurse experts. The GCNLF is also initiating a master plan for international nursing organizations to identify and facilitate optimal ways in which nurses and nursing organizations can be more effective in CVD and stroke prevention worldwide. By design, this includes enhancing the recognition of the central role that nurses play in the global fight against NCDs. Our long-term goals are to elevate the role of cardiovascular and stroke nursing globally and to affect CVD prevention and treatment around the world. Phase II is planned for fall 2015.

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