

Effective Nursing Practices in Cardiovascular Disease Management

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Abstract

Cardiovascular diseases (CVD) represent worldwide healthcare issue and considered to be one of the predominant factors in instigating morbidity and mortality among populations due to malfunctioning of heart valves resulting in heart failure, heart ischemic disease and cerebrovascular complications. There are numerous risk factors that contribute to increase in the incidence of cardiovascular complications. Due to the complexity and severe risk factors associate with this disease, it is imperative to combat the pathologies of CVD with clinical and surgical treatment modalities. Nurse professionals as well as psychologist are very important part of the eclectic team of medical professionals. Nursing team play a significant role in assisting the CVD patients during and after the surgery. They actively contribute in providing complete care to the patients who underwent cardiovascular surgery. Nurses with cardiovascular speciality play a significant part in combating the increased risk of CVD. Cardiovascular nurses actively participate in the improvement of health and well-being of the individuals.

INTRODUCTION

CVD represents a serious global health concern and nursing professionals from cardiovascular discipline play a crucial role in reducing this worldwide issue and promote positive outcomes in the CVD treatment [1]. These specialized nurses require thorough understanding of the disease treatment and follow up procedures, intensive skills and excellent resources that will permit and qualify them to perform as leaders in the management of CVD. Specific competencies of nurses specialized in cardiology with respect to World Health Organization core proficiencies of twenty first century healthcare employees in the prevention of CVD are outlined (knowledge, training and approaches) in detail. Development of strategies, leadership capabilities and mentorship are vital and a key approach for endorsing cardiovascular nursing role and promote nurses in the contribution of improvement in healthcare system by decreasing CVD and associated complications [2].

Nursing team plays a significant role in assisting the CVD patients during and after surgery. They actively contribute providing complete care to the patients who underwent cardiovascular surgery [3]. Several studies have reported that nursing professionals must plan and establish steps involved in the process of treatment and care to the CVD affected patients. For this process to be achieved, the intervention procedures should be directed by a scientific approach. This scientific approach (diagnosis, treatment plan and execution) permits the nurse to recognize and meet the requirements of the person. Nevertheless, to meet patients' requirements, they also must need intensive technical skills, intellectual competence and organizational relationships [4].

Although with thorough care and support to CVD patients, the incidence of post-operative complications is very

common and result in morbidity and mortality [5]. Therefore, there is a need for strategic planning that could alleviate complications and make a patient feel secure irrespective of new lifestyle modifications such as changes in diet and other related orientations that cater to the patient's requirements.

Patients discharge from the hospital is taken care by the members of multi-disciplinary team intermediated by nursing professionals as they are connection between the eclectic medical professionals so that definite requirements of each CVD patient are met [6]. Due to the complexity of cardiovascular disease management, treatment centres must provide expert human and material resources along with highly proficient techno- scientific expert team of "cardiologist, cardiac and vascular surgeons, anaesthesiologist, electrophysiologist, psychologist and very importantly registered nursing staff" [7]. Nurse professionals as well as psychologist are very important part of the eclectic team of medical professionals. This is mainly due to the fact that many patients specifically in their post-operative phase present with signs of anxiety, lack of hope, negative apprehension about the future and decline in their confidence level. These issues can be overcome with the help of psychologist intervention and support during the hospitalization that positively results in patient's recovery [8].

EPIDEMIOLOGY

CVD is one of the major contributors to early mortality worldwide and their prevalence has increased drastically over the past two decades. According to the information available at the international council of nurses, around twelve million nursing professionals (from largest healthcare) are managing chronic illnesses and CVD complications worldwide [9]. The American Heart Association along with WHO identify the

important aspects that nurses along with multi-disciplinary team members contribute with an aim to reduce the mortality rate by twenty-five percent in 2025. Over the past 40 years, nurses are being in-charge on key roles in the management of multiple risk factors associated infections and chronic illnesses such as CVD, coronary artery disease through primary care programmes and cardiac rehabilitation¹⁰. By playing a key role in the management of CVDs, they demonstrate excellent ability in reducing CVD complications. Furthermore, nurses have also adhered to the protocols and guidelines for CVD treatment and demonstrated positive outcomes in patients with reduced morbidity and mortality worldwide [9][10].

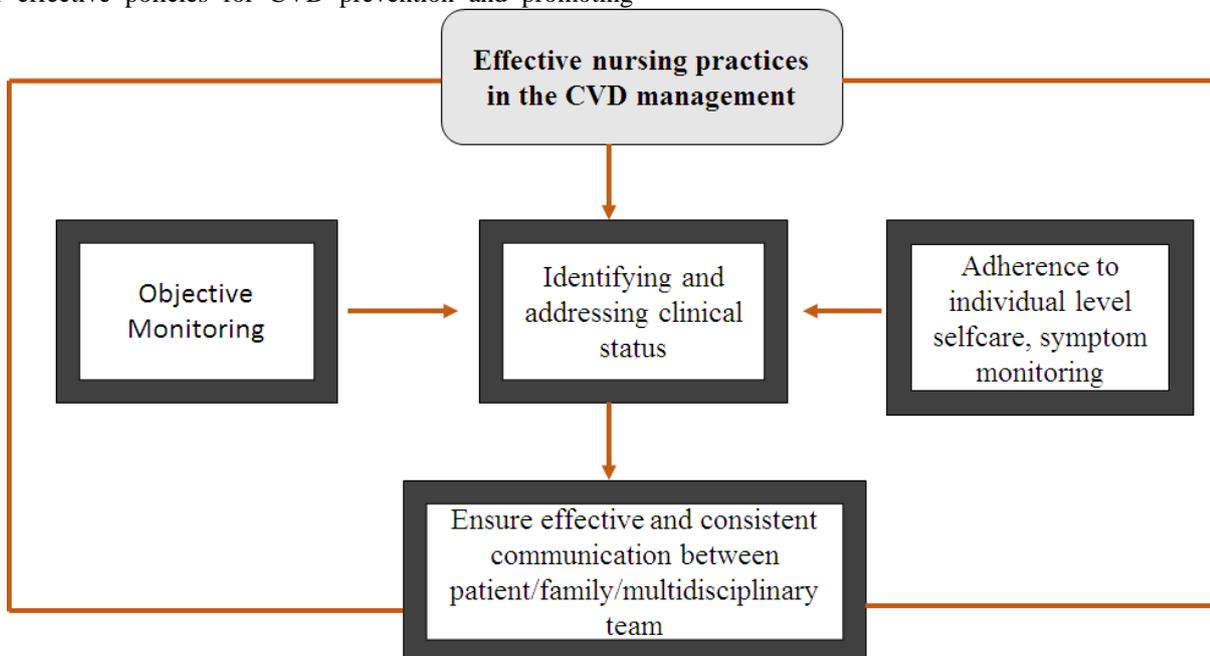
CARDIOVASCULAR COMPLICATIONS

Because of CVDs increasing illness and causing deaths globally, they result in substantial burden on people as well as communities. However, nurses with cardiovascular speciality play a significant part in combating the increased risk of CVD. Cardiovascular nurses actively participate in the improvement of health and well being of the individuals. Leadership capabilities are imperative for effective nursing practices in cardiovascular disease management. To deliver energetic and supportive workforce in cardiovascular disease treatment and prevention, an array of skills is obligatory [11]. In cardiovascular nursing, apart from proficient knowledge in CVD care, it is essential to analyse and implement evidence-based approaches within the apt frameworks. Emerging clinical and research approaches and development of effective policies for CVD prevention and promoting

policies are vital for improving the outcomes of CVD treatment [12].

CARDIOVASCULAR DISEASES – GLOBAL HEALTH CONCERN

There is a drastic increase in the incidence of people living with chronic diseases and is a matter of great concern in the healthcare system. Of all the chronic illnesses, huge burden and impact is caused by CVD [13]. The need of the hour is to develop a competent multi-disciplinary team of professionals to advance and implement chronic care models such as CVD care that positively impact in the treatment and management of CVD. The core competencies of cardiovascular nursing care include “patient-centred care, quality improvement of methods and treatment, effective information & communication expertise and technology” [14]. In treatment centres and hospitals around the world, patient-centred care is being implemented for effective care among individuals and communities. Quality improvement and effective treatment practices is to promote for efficient outcomes with stringent adherence to evidence-based procedures. Communication and IT competencies in healthcare system refers to attaining skills and employing technologies in patient care and support in cardiovascular management [15]. Adapting these core proficiencies as a straightforward framework will be very effective in driving healthcare prospectuses and CVD prevention. It is imperative to recognize educational and clinical capabilities that a cardiovascular nurse require for leadership in cardiovascular management [14][15].



EFFECTIVE NURSING PRACTICES

Effective cardiovascular nursing professionals and tutors are required to contribute to CVD prevention and promote active healthcare delivery system. Development of leadership

qualities is a significant part of cardio-speciality nurses with regard to professional growth as well as in all phases of healthcare system. Leadership qualities are very important for cardiovascular nurses in implementing policies for prevention and management of CVD, delivering effective

patient care, pursuing research and translating them into practice, managing a treatment centre and holding an integral role on policy governing bodies [16].

Mentorship in effective nursing practices have shown increased outcomes in personal and professional levels. According to Baroness et al. mentorship instigates positive attitude and encompasses a dynamic interaction. In cardiovascular nursing practices, mentoring acts as a preceptor and support less experienced nurses and nursing interns to establish goals for CVD prevention and treatment [17]. Professional associations such as American Heart Association offer and promote mentorship activities. The activities generally include mentoring program for young cardiovascular nurses, interns, young scientists, post docs and postgraduates. AHA council sponsored an international mentorship program in 2008 on effective cardiovascular nursing and practices. The outcomes of this mentorship program were very successful in CVD management [18]. In reported cases of atherothrombosis, evidence-based guidelines and preventive measures are established depending on the pathophysiology of the illness. The cardiovascular nurse must have thorough understanding and knowledge on the physiological process (from fatty streak formation to dysfunction of endothelium, formation of plaque and its rupture) that associate that associate with this disease [18].

RECOMMENDATIONS

It is highly recommended that a nurse should possess a basic understanding on the pharmacological agents mediated for reduction in cardiovascular complications. This will enable them and offers credibility in educating patients on management of long-term therapy. Many authors have reported that a good level of knowledge on the management of various chronic illnesses such as deep vein thrombosis, malfunctioning of heart valves resulting in heart failure, dyslipidaemia resulted in the positive outcome and healthcare delivery [19]. However, it is also extremely important for a cardiovascular nurse to have an additional knowledge on the pharmacological agents responsible for surge in cardiovascular complications. It is suggested for a cardiovascular nurse to have a basic understanding of genetic disorders and factors that contribute to CVD. Several research findings suggested that a nursing practitioner to have a good level of understanding on risk factors associated with atherothrombosis [19].

A trial conducted in Spain by Penalvo and his team outcomes demonstrated the importance of healthcare training especially nursing interventions pertaining to the reduction in CVD among diverse communities^[20]. With efforts focussing on the prevention of CVD globally, Dr.Hill and his team highlighted on how the shortage of nurses and other healthcare workers will be a barrier in patient care delivery and management. Role of nursing is vital for CVD prevention and imperative to deliver patient centred care that can be achieved through evidence-based practices and quality

initiative programs. Dr.Hill also proposed methods and opportunities by adopting approaches such as quality improvement on healthcare settings, eradication of barriers that hinder in healthcare and innovative strategies to mitigate healthcare issues with an emphasis on effectively promoting nursing education and evidence based practices [21].

PROMINENT ROLE OF NURSES IN CVD MANAGEMENT

Many data and studies support the key role of nurses in cardiovascular and associated diseases prevention. A landmark trial conducted by Stanford Risk Intervention Project results revealed that nurses play a prominent role in reduction of clinical events in CVD which was evident from regression of disease by angiographic procedure. Several attempts were made and have been successful in elucidating the significance of nursing professionals in the management of CVD by strictly adhering to protocols and guidelines for medical therapies. A trial on atherosclerosis management program results demonstrated that patients with coronary artery disease and received nursedirected care reported with a reduction in the rate of morbidity and mortality to a significant extent post one year follow up than the usual care [22]. This study clearly demonstrated nurse directed recommendations for prevention of CVD and other associated complications. The Global Cardiovascular Nursing Leadership Forum were successful in initiating a global nursing movement for CVD prevention in both developing and developed countries [23].

CONCLUSION

Nurse professionals as well as psychologist are very important part of the eclectic team of medical professionals. Nursing team play a significant role in assisting the CVD patients during and after the surgery. They actively contribute in providing complete care to the patients who underwent cardiovascular surgery. Nurses with cardiovascular speciality play a significant part in combating the increased risk of CVD. Effective cardiovascular nursing professionals and tutors are required to contribute to CVD prevention and promote active healthcare delivery system. Development of leadership qualities is a significant part of cardio-speciality nurses with regard to professional growth as well as in all phases of healthcare system.

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