

INTRODUCTION

The heart is a hollow, muscular organ located in the center of the thorax, where it occupies the space between the lungs (mediastinum) and rests on the diaphragm. It weighs approximately 300 g (10.6 oz). The heart pumps blood to the tissues, supplying them with oxygen and other nutrients (**Williams et al., 2009**).

Coronary bypass surgery is technique have been performed for approximately 35 years. CABG is a surgical procedure in which a blood vessel from another part of the body is grafted to the occluded coronary artery so that blood can flow beyond the occlusion; it is also called a bypass graft. (**Bickley & Sailaygi, 2008**).

Coronary artery bypass graft (CABG) surgery is indicated for patients with coronary artery disease to relieve symptoms, improve quality of life, and/or prolong life. More than 300,000 patients undergo CABG surgery annually in the United States with an initial hospital cost of approximately \$30,000 per patient. As operative techniques continue to improve and peri-operative care is enhanced, patients who were once denied surgery may now be surgical candidates. With this increase in the complexity of surgical cases, it becomes even

more crucial that there be an effective collaboration among the surgeon, the anesthesiologist, the perfusionist, and the peri-operative nursing staff [**Martin and Turkelson 2006**].

The role of the professional nurse regarding care of the patient undergoing open heart surgery is beneficial for obtaining a positive outcome for the patient. This article focuses on the preoperative and postoperative nursing care of patients undergoing coronary artery bypass graft surgery. Risk assessment, preoperative preparation, current operative techniques, application of the nursing process immediately after surgery, and common postoperative complications will be explored (**Carlson, 2009**).

The care of the CABG patient is intense, complex, and rewarding. The patient is admitted to the intensive care unit unconscious, intubated, and completely dependent on advanced technology as well as the expert care of the health team is very important. Nurses are a part of the team that makes this return to health a possibility for the patient (**Mayo Foundation for Medical Education and Research, 2009**).

Peri-operative nursing care is given to surgical patients preoperatively, intra operatively, and postoperatively by a registered nurse. It has become a highly specialized area. This is a highly specialized area of nursing in which a Registered nurse works as a team

member of health care professionals. Other health care professionals include the surgeon, anesthetist, scrub nurse, and circulating nurse. (<http://www.medscape.com/resource/perioperative-nursing>, 2009).

A peri-operative nurse needs to be sensitive and highly skilled in evaluating patient's needs within strict time constraints and under conflicting pressures. The Peri-operative Nurse's have many objectives. These include the planning and directing of nursing care of patients undergoing operative and other invasive procedures.

This care is provided in different environments which include health care facilities like hospitals surgical departments (including the operating room and recovery room). Doctor's surgeries, and outpatient surgery units, peri-operative nurses prepare patients for surgery, provide support and education to patients and families, facilitate pain management, and ensure patient safety and quality care. (Cambell et al., 2002 & Botha et al., 2010). So, this study is an endeavor to improve nurses' knowledge and practice in clinical area, in an attempt to reduce morbidity and mortality rates among patients undergo CABG surgery .this will be achieved through design and implementation of teaching program that emphasizes the importance of proper performance and its effect on these patients.

AIM OF THE STUDY

This study aimed to evaluate the effect of an educational program on the performance of nurses working with coronary artery bypass grafting patients through:

1. Assess the nurses' knowledge about care provides for patient with coronary artery bypass grafting.
2. Assess the nurses' practice related to specific care measures.

Significance of the study

In recent years, a rapid emergence of cardiovascular disease has been reported as a clinical and public concern in many economically developing countries. At the same time, a high prevalence of known risk factors for coronary artery disease has been documented in these developing countries, including Egypt. **Hesham et al., (1997)** say his study conducted a retrospective review of Egyptian who underwent coronary artery bypass graft surgery the sample are 290 Egyptian patients who underwent surgery, 262 underwent CABG alone, and the other 28 patients had Concomitant cardiovascular surgical procedures.

The higher number of bypass grafts per patient (3.9%) in the Egyptian group was most likely due to the severity of coronary artery disease among these patients. Studies in other populations have reported an average of 2.3% to 2.5% grafts per patient. (**Hesham et al., 1997**). So it is important to give teaching program designed for nurse working with coronary artery bypass grafting patient on their knowledge and practices regarding Peri-operative nursing management.