Needs Assessment for Patients Undergoing Coronary Artery Bypass Graft Surgery

Thesis

Submitted for Partial Fulfillment of Master Degree in Nursing Science (Critical Care Nursing)

By

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Needs assessment for patients undergoing coronary artery bypass graft surgery

Abstract

Coronary artery bypass graft (CABG) is surgical treatment procedure that restores normal blood flow to the heart muscle. A holistic approach is based on the premise that disease is never the result of one causative agent or condition but rather the result of a complex interplay between people and their physical, psychological, educational, social, and spiritual needs. **Aim of the study:** The aim of this study is to assess the needs for patients undergoing coronary artery bypass graft surgery. **Research question :** what are the different needs for patients undergoing coronary artery bypass graft surgery ? **Research design:** Descriptive exploratory design was used to achieve the aim of this study. **Setting:** This study was conducted in the open heart surgical Unit in Ain Shams university Hospital, which is affiliated to Ain Shams University. **Subject:** The study subjects composed of purposive sample of 70 adult patients patients undergoing coronary artery bypass graft surgery from the above mentioned setting.**Tools :** 1) Patient's interview questionnaire. 2) Physical needs assessment questionnaire. 3) Hospital anxiety and depression scale. 4) The Medical Outcomes Study (MOS) social support survey. 5) Spiritual needs assessment tool and 6) Cardiac patients learning needs inventory. **Results:** Regarding physical needs two third of the studied patients were considered moderate physical needs. On the other hand, 52.9 % of the studied patients had reported abnormal behaviors which indicating depression. Regarding social support need, 52.9% of the studied patients had reported somewhat of the time need for social support. While, 50% of the studied patients had reported need very much for spiritual needs. Aditionally, Regarding learning needs concerning wound care 100% of the studied patients had reported need very much**. Conclusion :** the studied patients reported the learning needs very much need more than the other needs. More than half of the studied patients reported abnormal behavior regarding depression. **Recommendations:** Patients should be encouraged to participate in rehabilitation programs post coronary artery bypass graft surgeries to satisfy their physical, psychological, social, spiritual and learning needs.

Keywords: Coronary Artery Bypass Graft Surgery, Patient Needs.

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LIST OF ABBREVIATIONS

Abb.	Meaning

ABGS : Arterial Blood Gases

A-V Valve : Atrioventricular valve

BP : Blood Pressure

CABG **:** Coronary Artery Bypass Graft

CAD **:** Coronary Artery Diseases

CAUTI : Catheter Aquired Urinary Tract Infection

CCU **:** Coronary Care Unit

CK : Creatine Kinase

CK-MB : Creatine Kinase-Muscle/Brain

CO : Cardiac Output

HADS : Hospital Anxiety and Depression Scale

ICA **:** Invasive Coronary Angiography

IMA : Internal Mammary Artery

MI : Myocrdial Infaraction

ML/H : Millileter / Hour

ML/KG/H. : Millilieter / Kilogram /Hour

MOS : Medical Outcome Study

NANDA : North American Nursing Diagnosis Association.

PCA : Patient Controlled Analgesia

PCI : Percutaneous Coronary Intervention

PCIS **:** Post-Cardiac Injury Syndrome

SPSS : Statistical Package Social Science

WHO : World Health Organization

ICU : Intensive Care Unit

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Introduction

Coronary artery bypass graft (CABG) is a surgical treatment for coronary artery disease. It is a procedure that restores normal blood flow to the heart muscle. The surgeon takes a healthy blood vessel from another part of the body and connects it to the diseased coronary artery on the heart, just past where the blockage is located. This creates a bypass around the diseased artery and creates a new path for oxygen-rich blood to flow to the heart muscle **(Goldman, Sethi & Holman, 2016).**

Coronary artery bypass graft surgery was introduced in the 1960s in the United States with the aim of offering symptomatic relief, improved quality of life, and increased life expectancy to patients with CAD by the 1970s, CABG was found to increase survival rates in patients with multivessel disease and left main disease when compared with medical therapy. Despite these initial positive results, the European Coronary Surgery Study conducted in the 1970s indicated that the significant improvement in 5-year survival rates with CABG was not apparent in the subsequent 5 years. Nonetheless, CABG became a routine operation in patients with CAD **(Alexiou et al., 2017).**

Patients undergoing coronary artery bypass graft surgery are considered critical cases. They need accurate,

complete and highly skilled assessment to identify actual or potential health problems. The assessment is performed in consistent and organized manner, beginning with an overall evaluation of general status and proceeding to a more detailed evaluation of cardiovascular status **(Caine, Harrison, Sharples & Wallwork, 2017).**

Accurate assessment for patients undergoing coronary artery bypass graft surgery is an important nursing function and is a part of the role of health-care professionals delivering rehabilitation. It is essential to acknowledge and incorporate the self perceived needs of patients into the information they receive. So it is important to adequately assess and meet patients' needs. Ensuring that patients' needs have been met prior to hospital discharge sets the stage for successful self – management of recovery at home **(Polit& Hungler, 2008).**

Coronary artery surgical patients are feeling hard period the time of diagnosing the disease, need to surgery and taking decision about doing it and how to take care after surgery are facing with several physical, mental and social stressful factors and bear many different anxieties. The patients bear stresses and anxieties because of the surgery complications, physical power reduction, lack of playing the previous roles and responsibilities in the family or in the society and they are in conflict with the negative

emotions due to these factors (**Mooney, Fitzsimons & Richardson, 2015).**

Identification of these needs by the nurses is necessary for making trust and communication, and then the patients explain their anxieties with peace of mind. Identification and transparency of the expectations of different needs and concerns of the patients, like a key for improving life quality is vital (**Karlsson, Johansson & Lidell, 2014).**

Among cardiac surgeries, coronary artery bypass graft (CABG) surgery is the most common type of heart surgery to minimize this damage in coronary arteries and about 90% of patients experience significant improvement after CABG surgery. Patients and health care providers must work together after surgery to treat the underlying atherosclerosis and the factors that can cause progression of heart disease **(Acorda, Kraus & Casey, 2013).**

Significance of the study:

CABG is a major incident with a main psychological and emotional impact on patients and their families. CABG is a life threatening incident for patients and is a physical and psychological stress. With adapting problems and hospital schedules, patients feel suffering and lack of control, and hospitalization separates them from their relatives, friends and everyday life situation **(Welke et al., 2016).**

Coronary artery bypass graft surgery is one of the most common procedures performed during U.S. hospital stays, it accounted for 1.4% of all operating room procedures performed in 2011. Between 2001 and 2011, however, its volume decreased by 46%, from 395,000 operating procedures performed in 2001 to 213,700 procedures in 2011. Coronary artery bypass grafting (CABG) is performed for patients with coronary artery disease (CAD) to improve quality of life and reduce cardiac-related mortality. CAD is the leading cause of mortality in the United States, Europe, and Australia; it is the most common cause of heart failure **(Eisenberg et al., 2016).**