

Promoting Lifestyle of Clients with Coronary Artery Disease

Thesis

*Submitted in Partial Fulfillment of the Requirement
of the Doctorate Degree*

*In
Nursing Science
Community Health Nursing*

By

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا

عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

صدق الله العظيم

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List of Abbreviations

CAD	: Coronary Artery Disease.
CHD	: Coronary Artery Disease.
MVD	:Micro Vascular Disease
REM	:Rapid-Eye Movement
ECG	:The Electrocardiogram
QOL	:Quality Of Life
CXR	:Chest X-Ray
HbA1c	:Glycated Hemoglobin
TC	:Total Cholesterol
HDL	:High Density Lipoprotein Cholesterol
LDL	:Low Density Lipoprotein
GFR	:Glomerular Filtration Rate
SCAD	:Stable Coronary Artery Disease
MI	:Myocardial Infarction
ACS	:Acute Coronary Syndrome
NSTEMI	:Non ST-segment Elevation Myocardial Infarction
ACE	:Angiotensin Converting Enzyme Inhibitors
PTCA	:Percutaneous Transluminal Coronary Angioplasty
CABG	:Coronary Artery Bypass Graft Surgery
AHA	:American Heart Association
WHO	:World Health Organization

Abstract

Coronary artery disease (CAD) is the most common type of cardiovascular disease and accounts for the majority of these deaths. CAD might be preventable if an appropriate lifestyle were adapted focuses on improve heart health included: dietary intake guidelines, smoking cessation, increase physical activity, follow up regarding medication compliance, weight management programs, hypertension control, and management of hyperlipidemia. **The aim** of this study was to develop and implement a health promotion program for promoting lifestyle of clients with coronary artery disease. **Setting:** This study was conducted at The Cardiac Outpatient Clinics at Ain Shams University Hospital. **Sampling:** A purposive sample of 53 clients with CADs were included, male & female aged from 45 years and above, and registered for follow up in the previous setting. **Tools:** For data collection three tools were used, an interviewing questionnaire for the CAD clients include six parts; 1st tool: socio-demographic characteristics, home environmental assessment, Past and present medical and family history, medical record, client's knowledge regarding coronary artery diseases and client's lifestyle toward CAD. 2nd tool: An Attitude Rating Scale, 3rd tool: physical assessment measurements. **Results:** of this study revealed that more than three quarters from clients had correct knowledge regarding CAD. Regarding total lifestyle practices most of clients had satisfactory lifestyle practices, more than three quarter of clients had positive attitude toward CAD after program implementation. **Conclusion:** The study concluded that the health promotion program showed remarkable improvement in client's knowledge, practices and attitude regarding their CADs. There was highly statistically significant difference in relation to client's knowledge, practices and attitude toward CAD pre/post health promotion program. **Recommendations:** The study recommended that Continuity of health education programs to raise the health awareness and knowledge of children and adolescents about risk factors for heart disease and encourage them to adopt a healthy dietary behavior, promote physical exercise and smoking cessation. Providing cardiac outpatient clinics in governmental hospitals with rehabilitation centers to follow-up lifestyle promoting for cardiac patients.

Key words: Coronary Artery Disease, Lifestyle, Health Promotion

Introduction

Coronary artery disease (CAD) is the most common type of cardiovascular disease and accounts for the majority of these deaths. It also called heart disease or ischemic heart disease, results from a complex process known as atherosclerosis. In atherosclerosis, fatty deposits (plaques) of cholesterol and other cellular waste products build up in the inner linings of the heart's arteries. This causes blockage of arteries (ischemia) and prevents oxygen-rich blood from reaching the heart (*Morrow and Gersh, 2009*).

The atherosclerosis process begins with cholesterol and lipoproteins that transport cholesterol. Cholesterol is a substance found in all animal cells and animal-based foods. It is critical for many functions, but under certain conditions cholesterol can be harmful. The lipoproteins that transport cholesterol are referred to by their size. The most commonly known are low-density lipoproteins (LDL) and high density lipoproteins (HDL). LDL is often referred to as "bad" cholesterol; HDL is often called "good" cholesterol (*Ridker and Libby, 2009*).

A common symptom of coronary heart disease (CHD) is angina. Angina is chest pain or discomfort that occurs if an area of the heart muscle doesn't get enough oxygen-rich blood. Angina may feel like pressure or squeezing in the chest,

shoulders, arms, neck, jaw, or back. Angina pain may even feel like indigestion. The pain tends to get worse with activity and go away with rest. Emotional stress also can trigger the pain. Another common symptom of CAD is shortness of breath. The severity of these symptoms varies. They may get more severe as the buildup of plaque continues to narrow the coronary arteries (*Boesner et al, 2010*).

Al-Sarraj et al, (2010) reported that CAD is related to lifestyle and physiological factors that, if modified, reduce morbidity and mortality. Individuals with proven vascular disease should be targeted for intensive lifestyle interventions. However, lifestyle intervention should be advised for everyone because of its overall health gain. Nutrition constitutes a key element in one's lifestyle and nutritional changes can impact many of the known risk factors included blood lipid abnormalities, hypertension, diabetes, smoking, physical inactivity and obesity.

Yusuf et al, (2008) emphasize that CAD might be preventable if an appropriate lifestyle were adapted. The utilization of prescription drugs to modify certain risk factors reduces the risk of CAD, as well as increases life expectancy and maintains health. Management of CAD risk factors with pharmaceuticals alone is rarely as effective as a combination therapy of lifestyle modification and pharmaceutical

intervention. Most clinicians prefer to recommend lifestyle modifications prior to the initiation of drug therapy.

Community health nurse have an ideal opportunity to enhance health- promoting activities that can reduce the risk of CAD as educators and role models for their families, communities and patients. For effective prevention and treatment, it is important that nurses consider the psychosocial and cultural parameters that may affect health behaviors. CHN can promote healthy lifestyle patterns that reduce the risks of CAD. For example, physical activity, regular meals, and nutrition and weight counseling are all areas where nurses may help to reduce the risk factors (*Miller et al, 2010*).

Justification of the problem:

In Egypt

According to the latest World Health Organization (WHO) data published in April 2011 Coronary Heart Disease Deaths in Egypt reached 21.73% of total deaths (*World Health Organization, 2012*).

The Egyptian National Hypertension Project has provided the two principal sources of information on the epidemiology of coronary heart disease in the region, in addition to data from the WHO. This nationally representative survey of 6733 subjects (about half of whom were women) found an adjusted overall prevalence of coronary heart disease

of 8.3%. The prevalence of coronary heart disease was somewhat higher in women (8.9%) relative to men (8.0%), but was more clearly associated with an urban versus rural location (8.8% versus 7.2%), and age >50 years versus <50 years (11.1% versus 5.1%). A high prevalence of hypertension in Egypt (26%) was an important driver of adverse cardiovascular outcomes (*National Institute for Health and Clinical Excellence. NICE, 2012*).

Worldwide: CVDs are the number one cause of death globally: more people die annually from CVDs than from any other cause. An estimated 17.3 million people died from CVDs in 2008, representing 30% of all global deaths. Of these deaths, an estimated 7.3 million were due to coronary heart disease and 6.2 million were due to stroke. Over 80% of CVD deaths take place in low- and middle-income countries and occur almost equally in men and women (*WHO, 2011,Updated March 2013*).

Aim of the study:

The study was aimed to promoting lifestyle of clients with coronary artery diseases through:

1. Assess the client's needs regarding their knowledge, attitude and practice toward their lifestyle.