Nursing Intervention Program Using Epidemiological Model for Clients With High Lipids Profile

Thesis

Submitted in Partial Fulfillment of the Requirement of the Doctorate Degree

In Nursing Science

"Community Health Nursing"

By

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ABBREVIATIONS

AHA	American Heart Association
BHFHS	British Heart Foundation Health Statistics
BMI	Body Mass Index
Carbs	Carbohydrates
CDC	Centers for Disease Control and Prevention
CHD	Coronary Heart Disease
CHMS	Canadian Health Measures Statistics
CVD	Cerebro-Vascular Disease.
EUFIC	European Food Information Council
FH	Familial Hyperlipidemia
HDLC	High Density Lipoprotein cholesterol.
HHS	Health and Human Services
LDLC	Low Density Lipoprotein cholesterol.
NCD	Non Communicable Diseases
NCEP	National Cholesterol Education program
NHLBI	National Heart, Lung, and Blood Institute
NHS	National Health Statistics
NICE	National Institute for Health and Clinical Excellence Technology
NIH	National Institute of health
PA	Physical Activity
SIGN	Scottish Intercollegiate Guidelines Network
TC	Total Cholesterol
TG	Triglyceride
USDA	United States of America Departments of Agriculture
USEPA	United States Environmental Protection Agency
VLDLC	Very Low Density Lipoprotein cholesterol
WC	Waist Circumference
WHO	World Health Organization

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Asmaa Salah

ABSTRACT

Nursing Intervention Program Using Epidemiological Model for Clients with High Lipids Profile

By

Asmaa Salah Eldin Mohamed Saleh

High blood cholesterol level is one of the major controllable risk factors for developing coronary heart disease, heart attack and stroke. **Aim of the study**: this study was aiming to measure effect of nursing intervention program using epidemiological model for clients with high lipids level. **Design:** a quasi-experimental design was applied to achieve the aim of the study. **Setting:** study was carried out in Health Insurance Organization; Naser and Nasr city out patients clinics. **Sample:** composed from (100 individuals; 68 males, and 32 females), with high lipids profile chosen randomly according to certain criteria. **Tools:** data was collected through using three tools: first tool; structure interviewing questionnaire was developed to assess clients' knowledge, practices, socio demographic characteristics; second tool; to assess clients' BMI, and third tool; to assess clients' medical history and laboratory investigations. **Results:** after applying nursing intervention the study showed that, improved knowledge level of the clients with high lipids, improved in behavioral habits of clients regarding nutritional habits, and physical activities. Changes in blood lipids level toward improvement from high levels to desirable normal and borderline high level. **Conclusion:** the study concluded to answered about research hypothesis in which clients' knowledge improved post applying nursing intervention and there is highly significant correlation difference pre and post nursing intervention, clients' behavioral habits related to nutrition and physical exercises improved, and there is highly significant correlation difference pre and post nursing intervention, also there is highly significant correlation difference of lipids level pre and post nursing intervention. **Recommendations:** study was recommended to encourage clients with high lipids level for making changes and modifications for their sedentary lifestyle to maintain lipids level about normal range and prevent any future complications by: changing behavioral habits, and to conduct further studies about effect of high lipids level on cognitive abilities of clients' with hyperlipidemia, familial hypercholesterolemia, and geriatric clients.

Key words: cholesterol, BMI, lipids profile, physical exercise, dietary habits, epidemiological model.

Introduction

INTRODUCTION

High blood cholesterol is one of the major controllable risk factors for developing coronary heart disease, heart attack and stroke. It is important to find out cholesterol level because lowering cholesterol levels that are too high lessens the risk for developing heart disease and reduces the chance of a heart attack or dying from heart disease. Heart disease is number one killer of women and men in the United States, each year, more than a million Americans have heart attacks, (**NIH, 2005**).

Each year, 500,000 Americans die from heart disease, and approximately half of them are women. 50% of men and 64% of women who die suddenly of heart disease have no previous symptoms of the disease, (**American Heart Association, 2009**). In Egypt; mortality rate from cardiovascular diseases and DM (427.3/100,000 males), (384/100,000 females). In Egypt raised cholesterol level; (33.3% males, 43.7% females, total: 38.6%), obesity; (21.4% males, 44.5% females, total: 33.1%), (**WHO, NCD country profile, 2011**).

Preventing many of the chronic diseases is dependent on individual actions, including risk reduction, participation in screening efforts, and prompt attention to signs and symptoms to ensure early diagnosis and treatment. All health care providers are challenged to empower individuals to develop or modify lifestyle patterns that maintain health and prevent disease, (**Longmore, et al., 2004**). The National Cholesterol Education Program, the American College of Cardiology, and the American Heart Association, recommend diet and lifestyle modification as the first line of defense against abnormal blood lipids. These recommendations include a diet low in total fat, saturated fat, and cholesterol a diet high in fibers, weight loss or weight management increased physical activity, and smoking cessation, (**National Cholesterol Education Program, 2002; NIH, 2006; NHLBI, 2011**)

Community health nurse can use epidemiological studies to evaluate the quality of care, and apply epidemiological findings in the practice area. It is essential that incorporate study results into prevention programs for communities and at risk populations. further, the philosophy of public health and epidemiology dictates that nurses extend its application into major health policy decisions, because the aim of health policy planning is to achieve positive health goals and outcomes for improved societal health. Community health nurses collaborating with community members can combine epidemiological knowledge and aggregate-level strategies to affect change on the broadest scale, (**Ashengrau, & Seage, 2008**)

The web of causation model exploring the influence of multiple factors on the development of a specific health condition. which allows the epidemiologist to map the inter.relationships among factors contributing to the development (or prevention) of a particular health condition. This approach also assists in determining areas when efforts at control will be most effective, (**Friedman, 2003; MacDonald, 2004, Mary; 2008**) Through using epidemiological information can direct interventions to control health related conditions, by increase awareness, change behavioral habits about nutrition and dietary concept, encourage high risk people with high lipid profile for physical activities and weight control, (**Frances, & Claudia, 2005**).

This study was held at out patients clinics (medicine, cardiology, and follow up), at Health Insurance Organization (HIO), Cairo branch, in which the follow up of diagnosed patients with high lipids profile were selected according to certain criteria, total number were (2000) studied 5% out of them chosen randomly according to certain criteria. This study was held to assess clients' with high lipids profile knowledge, and practices related to behavioral habits related to nutrition, and physical exercises and to assess effect of nursing intervention program on modifications of their lifestyle habits related to

nutrition, and physical exercise and study its effect on their serum blood lipids level.

Magnitude of the study:

Throughout the world, blood cholesterol levels vary widely. Generally, people who live in countries where blood cholesterol levels are lower, such as Japan, have lower rates of heart disease, while countries with very high cholesterol levels, such as Finland, also have very high rates of coronary heart disease, however, some populations with similar total cholesterol levels have very different heart disease rates. About two in three adults have a cholesterol level that is higher than recommended, high cholesterol is more common in men younger than 55 years and in women older than 55 years, so the risk for high cholesterol increases with age, (**Atlas of Heart Disease and Stroke, WHO, 2010, AHA, 2011; CDC, 2011**).

Aim of study

AIM OF THE STUDY

The study aimed to measure the effect of the nursing intervention program using epidemiological model for clients with high lipids profile this could be achieved through:

⇒ Assessing clients' knowledge, and practices related to behavioral habits according to epidemiological model to define the client's needs.

⇒ Designing and implementing nursing intervention program according to their needs.

⇒ Evaluating the effect of nursing intervention program on improving client's health status.

Hypothesis:

1. The nursing intervention program by using epidemiological model for clients with high lipids profile will improve the clients' knowledge and practices related to behavioral habits.
2. The nursing intervention program by using epidemiological model for clients with high lipids profile will control the clients' lipids profile to reach normal range.

Literature Review