Smoking cessation program for lung cancer patients

Thesis
Submitted for Partial Fulfillment of the Requirement of doctorate Degree in Psychiatric Nursing

By

Samah Gaber Hassan

m.sc *of Psychiatric/Mental Health Nursing*
Faculty of Nursing
Ain Shams University

Faculty of Nursing
Ain Shams University

2015

Smoking cessation program for lung cancer patients

Thesis
Submitted for Partial Fulfillment of the Requirement of doctorate Degree in Psychiatric Nursing

Supervised By:

Dr. Mona Hassan Abdel Aal
Assist. Prof of Psychiatric/Mental Health Nursing
Faculty of Nursing
Ain Shams University

Dr. Amal Elias Abdel Aziz
Lecturer of Psychiatric/Mental Health Nursing
Faculty of Nursing
Ain Shams University

Dr. Engi Mouawad Elkholy
Lecturer of clinical oncology
Faculty of medicine
Ain Shams University

Faculty of Nursing
Ain Shams University

2015

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious, Most Merciful

First of all and foremost, thanks to **ALLAH**, for giving me the strength and the patience to complete this thesis after all the challenges and difficulties.

I would like to express my deep thanks and appreciation to supervisor. **Dr. Mona Hassan, Assist.Professor** of Psychiatric/Mental Health Nursing, Faculty of Nursing, Ain Shams University for her supervision, personal enthusiasm, moral support, and valuable advices throughout the conduction of this study and for teaching me to be self-motivated.

I would like to express my deep gratefulness and sincerest appreciation to supervisor **Dr. Amal Elias**, Lecturer of Psychiatric/Mental Health Nursing department, Faculty of Nursing, Ain Shams University for her supervision, fruitful guidance, unlimited help, valuable advice, and great support to the completion of this study.

I would like to express my deep thanks, indebtedness, and grateful gratitude to **Dr. Engi Elkholy,** Lecturer of clinical oncology, Faculty of Medicine, Ain Shams University for his supervision, continuous advice, constant encouragement, and valuable help.

Last but not least, I would like to express my gratitude to all my colleagues in the work, nurses, friends and all persons who were directly or indirectly involved in my study and have one way or another helped in making this study a success.

Samah Gaber

List of Contents

Contents

Lists of Tables

Lists of Tables (cont...)

Lists of Figures

Operational Definitions

Light smoker:

A smoker who reports consuming between 1-10 cigarettes per day*(World Health organization,2010)*.

Moderate smoker:

A smoker who reports consuming between 11-15 cigarettes per day*(World Health organization,2010)*.

Heavy smoker:

A smoker who reports consuming 20 cigarettes or more per day *(World Health organization,2010)*.

Non smoker:

Adults who currently do not smoke cigarettes, including both former smokers and never smokers *(World Health organization,2010)*.

Current smoker:

Adults who have smoked 100 cigarettes in their lifetime and currently smoke cigarettes every day (daily) or some days (nondaily) *(World Health organization,2010)*.

Former smoker:

Adults who have smoked at least 100 cigarettes in their lifetime, but say they currently do not smoke*(World Health organization,2010)*.

Cold turkey method:

Give up smoking abruptly and totally all at once*(Ruff,2011).*

Cut down method:

Reduce the number of cigarettes use per day*(Doll,2013)*.

Nicotine fading method:

Switch to a cigarette with a lower level of nicotine

(langer,2012).

Withdrawal Symptoms:

Are a group of symptoms that occur in the first

few weeks upon the abrupt discontinuation or decrease in

intake of nicotine *(Tyas,2012).*

Nicotine addiction:

Is the fundamental reason that individuals persist in using

tobacco products, and this persistent tobacco use contributes

to many diseases *(Hill,2010).*

List of Abbreviations

ADHD   : Attention-Deficit Hyperactivity Disorder

CO   : Carbon Monoxide

CR   : Complete Response

CT   : Computed tomography imaging

DNA   : Deoxyribonucleic acid

EMRs   : Electronic medical record systems

LD   : Lesion Diameter

NSCLC   : Non Small Cell Lung Cancer

PAHs   : Polycyclic Aromatic Hydrocarbons

PD   : Progressive Disease

PR   : Partial Response

PS   : Performance status

RECIST   : Response Evaluation Criteria In Solid Tumors

RYO   : Roll-Your-Own

SCLC   : Small Cell Lung Caner

SD   : Stable Disease

SES   : Socio Economic Status

SIDS   : Sudden Infant Death Syndrome

The ECOG : Scale The Eastern Co-operative Oncology Group

Abstract

This study aimed to evaluate the effect of smoking cessation program on lung cancer smokers' patients. The study was conducted at the outpatient clinic of oncology center, affliated to Ain Shams University Hospitals, which conducted on 60 patients. **Tools of** data collection were using: **1)** Socio-demographic sheet to assess age, sex, residence, monthly income….etc, smoking history, quitting history& patients' knowledge. **2)** Fagerstrom Test For Nicotine Dependence. **3)** Computed assisted tomography scan (CT scan) of chest. **4)** The piCO Smokerlyser, a portable carbon monoxide (CO) monitor. **The result** showed that there is a highly statistically significant difference between pre-and post-program of smoking intensity , total knowledge scores of the patients and CT scan findings to evaluate lesion response (p=≤0.001). In addition, there are highly statistically significant differences between pre-and post-program of the performance status of the patients and their perceived health (p=≤0.001). Moreover, there are highly statistically significant differences between pre-and post-program methods of quitting and supporting system for the patients (p=≤0.001).**It is concluded** that the implementation of the smoking cessation program had a positive effect on the lung cancer smokers' patients. The study highlighted **the recommendation** of incorporating smoking cessation intervention into nursing curriculum at all levels of nursing education and in oncology centers it should focus not only on the risks of continued tobacco use, but also, and mainly, on supporting long-term abstinence and reducing relapse risk factors, which are very common among these patients.

Key words: Smoking cessation program- Lung cancer patients.

Introduction

The use of tobacco products in Egypt is widespread. It is estimated that approximately 20% of the population uses tobacco products daily. Cigarettes are the most common form of tobacco consumption in Egypt, with an estimated twenty billion cigarettes smoked annually in the country. After cigarettes shisha water-pipes are the most common form of tobacco consumption. Smoking is far more common among men than it is among women. The number of adults smoking tobacco products in Egypt continues to rise as much as 4% to 5% annually *(Yolande, 2010)*.

Smoking causes many serious diseases including cardiovascular disease (heart disease), lung cancer, and chronic obstructive pulmonary disease (emphysema, chronic bronchitis). Smokers are far more likely to become sick with one of these diseases than non-smokers. Smoking is also addictive and can be extremely difficult to stop*(Centers for Disease Control and Prevention,2010)*.

The majority of lung cancer cases in Egypt are due to tobacco use, 90% of all cases, because tobacco smoke contains more than 70 different substances that are thought to cause

cancer. When someone inhales smoke, these chemicals enter the lungs and spread around the rest of the body causing damage of Deoxyribonucleic acid (DNA) and change the important genes *(U.S. National Cancer Institute, 2011).*

Lung cancer is the number one cancer killer. Lung cancer kills more people every year than breast, colon, and prostate cancer combined. *The American Cancer Society (2010),* estimated that, there will be 172,570 new cases of lung cancer, and 163,510 lung cancer deaths. This means that every day of the year, approximately 470 people are diagnosed with lung cancer and 450 people die of the disease. In Egypt, lung cancer ranked fourth after bladder cancer, non hodgkin lymphoma and liver cancer in males while it was not so common in females. The Male : Female ratio was 3:1 and the age ranged between 31 and 95 years. The median age at diagnosis was 61 years.

Smoking during cancer treatment increases the risk of complications for all types of cancer treatment and may reduce its effectiveness. Complications associated with smoking during specific cancer treatments include the following: patients who smoke and undergo surgery have an increased risk of heart and lung complications, including problems related to general

anesthesia also, smoking makes it more difficult for the surgical wound to heal and may increase the risk of an infection. Smoking during radiation therapy and chemotherapy treatment increases the risk of side effects, including oral mucositis (inflammation of the mouth and throat), loss of taste, xerostomia (dry mouth), weight loss, fatigue (tiredness and loss of energy), pneumonitis (inflammation of lung tissue), bone and soft tissue damage, and damaged voice quality *(Canadian Cancer Society, 2010).*

Smoking cessation for lung cancer patients yields both immediate and long-term benefits including: improved oxygenation, lowered blood pressure improved smell, taste, circulation and breathing, increased energy and improved immune response. Smoking cessation is also associated with improved cognitive function psychological well-being, and self-esteem Lung cancer patients report after successful smoking cessation all of the same benefits plus, decreased fatigue and shortness of breath increased activity level, improved performance status, appetite, sleep, and mood In addition, there are significant positive effects of smoking cessation on the health of lung cancer patients as, decreased risk of disease, increased survival time, decreased post operative complications,