



# **Study of some methods of smoking cessation**

*Thesis*

*Submitted for partial fulfillment of Master Degree in Pulmonary Medicine*

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**2017**



# □دراسه بعض الطرق للاقلاع عن التدخين

رسالة

توطئة للحصول علي درجه الماجستير في الامراض الصدرية

والتدرن

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سبحانك لا علم لنا  
إلا ما علمتنا إنك أنت  
العليم العظيم

صدق الله العظيم

سورة البقرة الآية: ٣٢



## Acknowledgement

*First and foremost, thanks to **ALLAH**, the most merciful and the greatest beneficent.*

*I would like to express my great appreciation to **Prof. Dr Adel Mohammed saeed**, professor of chest disease, faculty of medicine, Ain shams university for his sincere effort, valuable advice and great confidence the he gave me throughout the whole work, his time and supreme effort are clear in every part this work. Many thanks and gratitude for him.*

*I would like to express my sincere gratitude to my advisor **Ass. Prof. Dr. Nehad Mohamed Osman**, professor of chest disease ,faculty of medicine , Ain shams university for the continuous support of my study and research, for her patience, motivation, enthusiasm, and immense knowledge. Her guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better advisor and mentor for my study.*

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## *List of Abbreviations*

<b>AHCPR</b>	:	Agency of health care policy and research
<b>CNS</b>	:	Central nervous system
<b>COPD</b>	:	Chronic obstructive pulmonary disease
<b>DLCO</b>	:	Diffusing capacity for carbon monoxide
<b>FDA</b>	:	Food and drug administration
<b>FEV1</b>	:	Forced expiratory volume in 1 second
<b>FTND</b>	:	Fagerstro Test for Nicotine Dependence
<b>LHS</b>	:	Lung health study
<b>MEK</b>	:	Methyl ethyl ketone
<b>NNK</b>	:	Nicotine derived nitrosamine ketone
<b>NNN</b>	:	Nitrosonor nicotine
<b>NRT</b>	:	Nicotine replacement therapy
<b>WHO</b>	:	World health organization

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### **ABSTRACT**

Tobacco addiction is both mental and physical. For most people, the best way to quit is a combination of medicine, a method to change personal habits, and emotional support the aim of the work was study of some methods of smoking cessation. Patient and methods: a randomized study recruited sixty smoker from Ain shams university hospitals divided into three groups, Group I subjected to brief verbal 5As technique for smoking cessation, Group II subjected to brief verbal 5As with adding nicotine gum , Group III subjected to brief verbal 5As technique with adding aversion therapy, Weekly interviews were conducted for follow up.

**Results:** There were significant Statistical differences (P value > 0.05) between the three studied groups as regard outcome the complete success rate of quitting was significantly higher among group 1(30%), versus (15%) in group 2, (15%) in group 3 partial success is higher in group 2 (55%) , versus (45%) in group 1 , (20%) in group 3 failed is higher in group 3(65%) , versus (25%)in group 1 , (30%) in group 2 In present study there were a significant difference at success rate of quitting in the three groups with age of smoker ,duration of smoking, with pack per year,with presence of comorbidity, with nicotine dependence score \*

**conclusion:** Behavioral therapy (5As) is the most effective in smoking cessation program. Nicotine replacement therapy and aversion therapy may be an adjuvant in smoking cessation program.Aversion therapy is a simple procedure, economic, practical, easy to apply and may be effective in smoking cessation

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**key word:** smoking cessation, nicotine gum.

## **Introduction**

The effects of smoking on human health are serious and in many cases, deadly. There are approximately 4000 chemicals in cigarettes, hundreds of which are toxic. The ingredients in cigarettes affect everything from the internal functioning of organs to the efficiency of the body's immune system. The effects of cigarette smoking are destructive and widespread and nicotine reaches the brain within 10 seconds after smoke is inhaled. It has been found in every part of the body and in breast milk (*Martin, 2008*).

There are several likely ways that cigarette smoke does its damage. One is oxidative stress that mutates DNA, promotes atherosclerosis, and leads to chronic lung injury. Oxidative stress is thought to be the general mechanism behind the aging process, contributing to the development of cancer, cardiovascular disease and chronic obstructive pulmonary disease (COPD) (*Martin, 2008*).

Cessation of smoking programs is designed to help smokers recognize and cope with problems that come up during quitting. This helps the ex-smoker avoid common pitfalls of quitting. The programs should also provide support and encouragement in staying quit. Studies have shown that the best programs include either one-on-one or group counseling (*American Cancer Society, 2011*).

There is a strong link between how often and how long counseling lasts (its intensity). And the success rate. Overall, the more intense the program, the greater the chance of success (*American Cancer Society, 2011*).

Tobacco addiction is both mental and physical. For most people, the best way to quit is a combination of medicine, a method to change personal habits, and emotional support (*American Cancer Society, 2011*).

Despite methods for cessation of smoking, smoking is still a big problem, thus there is a need for new alternative approach to control smoking.

There are a number of effective pharmacologic therapies for smoking cessation. In the absence of contraindications patients should be encouraged to use one or more of these therapies in combination with behavioral approaches. The American Cancer Society estimates that "between about 25% and 33% of smokers who use medicines can stay smoke-free for over 6 months (*American Cancer Society, 2011*).

Aversion Therapy methods have been used in attempts to modify a range of behavioral disorders, such as addictions, overeating (*Davison and Neale, 1994*).

Aversion therapy is a form of psychological treatment in which the patient is exposed to a stimulus while simultaneously being subjected to some form of discomfort (*O'Farrell et al., 1985*).

This conditioning is intended to cause the patient to associate the stimulus with unpleasant sensations in order to stop the specific behavior (*O'Farrell et al., 1985*).

## **Aim of the work**

Study of some methods of smoking cessation.

## **Smoking and its hazards**

### **Historical Background:**

Tobacco is a plant that grows natively in North and South America, the seed of a tobacco plant is very small. One ounce sample contains about 300,000 seed. It is believed that Tobacco began growing in the Americas about 6,000 B.C., as early as 1 B.C., American Indians began using tobacco in many different ways, such as in religious and medicinal practices, Tobacco was believed to be a cure-all, and was used to dress wounds, as well as a pain killer. Chewing tobacco was believed to relieve the pain of a toothache (*Randall, 1999*).

In 1826, the pure form of nicotine was finally discovered. Soon after, scientists concluded that nicotine is a dangerous poison. In 1836, New Englander Samuel Green stated that tobacco is an insecticide, a poison which can kill a man (*Randall, 1999*).

During the 1950's, more and more evidence was surfacing that smoking was linked to lung cancer. Although the tobacco industry denied such health hazards, they promoted new products which were "safer", such as those with lower tar and filtered cigarettes (*Randall, 1999*).

In 1964, the Surgeon General's report on "Smoking and Health" came out. This report assisted in allowing the government to regulate the advertisement and sales of

cigarettes. The 1960's in general were a time when much of the health hazards of smoking were reported (*Randall, 1999*).

### **Tobacco Usage Percentage:**

Percentage of tobacco use among Egyptian population: Overall, 19.4% (9.7 million). of adults in Egypt currently smoke tobacco; 37.7% men and 0.5% women. 95% of current smokers are daily smoker manufactured cigarettes are the most popular type of product smoked by men (31.7%), followed by shisha (6.2%). With regard to women smokers, 0.2% smoke manufactured cigarettes and 0.3% smoke shisha. Among daily cigarette smokers, men smoke on average 19.4 cigarettes per day (*GATS, 2009*).

For men who currently use shisha daily, 42.2% smoke one session per day; 68.1% of the sessions lasted less than 20 minutes; 80.3% do not share their instrument with another; 69.9% smoke two or fewer rocks per session; 54.2% usually smoke at home (37.5% in a café).; and 97.4% use unflavored tobacco (*GATS, 2009*).

For women, only 0.3% reported currently using shisha; however, use was highest in rural Upper Egypt (0.9%). and among those with no formal education (0.7%). Overall, 2.6% of adults reported using smokeless tobacco products (men 4.8% and women 0.3%) (*GATS, 2009*).