Prevalence of Tobacco Use among Medical Students, Ain- Shams University

Thesis

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By Heba tallah Mohamed Wageh ZaherM.B.,B.Ch

Under Supervision of

Prof. Amany Haroun EL-Rasheed

Professor of Neuropsychiatry
Faculty of Medicine-Ain Shams University

Dr. Doaa Nader Radwan

Assistant Professor of Neuropsychiatry Faculty of Medicine-Ain Shams University

Dr. Mahmoud Mamdouh El-Habiby

Lecturer of Neuropsychiatry
Faculty of Medicine-Ain Shams University

Faculty of Medicine Ain Shams University 2014



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Dedication

Dedicated to the one who inspired me

Throughout my whole life

To My Mother.



First of all, I am very grateful to **Allah** who helped me all through my life and for blessing me with all the people who helped me to accomplish this piece of work.

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List of Abbreviations

Abbreviation	Meaning
AKUADS	Aga Khan University Anxiety and Depression
3	Scale
BAI	Beck Anxiety Inventory
: CDC	Centers for Disease Control
СРНА	Canadian Public Health Association
DMCG	Dubai Medical College for Girls
EST-Q	Emotional State Questionnaire
FCTC	Framework Convention on Tobacco
FTND	Fagerstrom Test for Nicotine Dependence
FTQ	Fagerstrom Tolerance Questionnaire
GATS	Global Adult Tobacco Survey
GHPSS	Global Health Professional student Survey
GKT	Guy's, King's & St Thomas' School of
-	Medicine
GPEP	General Professional Education of Physician
GTS	Global Tobacco Survey
HADS	Hospital Anxiety and Depression Scale
HAM-A	Hamilton Rating Scale for Anxiety
KAP	Tobacco-Related Knowledge, Attitudes And
<u> </u>	Practices
EKSA	Kingdom of Saudi Arabia
SIMS	Services Institute of Medical Sciences
TFI	Tobacco-Free Initiative
TMAS	Taylor Manifest Anxiety Scale
U.S.A	United States of America
UK	United Kingdom
WHO	World Health Organization
YHBSQ	Youth Health Behavior Survey Questionnaire

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Introduction

Nicotine is one of the most highly addictive and heavily used drugs in the United States and around the world; about 20 % of the population develops nicotine dependence at some point, making it one of the most prevalent psychiatric disorders. Tobacco is the most common form of nicotine. It is smoked most commonly in cigarettes, then, in descending order, cigars, snuff, chewing tobacco, and in pipes. The World Health Organization (WHO) estimates that there are 1 billion smokers worldwide, and they smoke 6 trillion cigarettes a year. The WHO also estimates that tobacco kills more than 3 million persons each year (Sadock and Sadock, 2007).

According to the report of the World Health Organization published in 2011, tobacco smoking is still one of the greatest, avoidable, singular causes of death. Six million people worldwide die every year due to tobacco smoking. The prognosis is that in 2030 about 8 million people will die because of smoking, and 80% of these deaths will take place in low and middle income countries.

The onset of cigarette smoking occurs almost entirely during childhood and adolescence, with 90% of all smokers having initiated smoking by the age of 18 years (**Gilpin et al., 1994**). Approximately 1 million U.S.A teenagers take up smoking annually, and nearly one in five high school

graduates are daily smokers (Johnston et al., 1995). The majority of adolescent daily smokers report nicotine dependence and, similar to adult smokers, experience withdrawal symptoms when quitting (USDHHS, 1994). These high smoking rates and reports of dependence among adolescents spark intriguing questions regarding the role of nicotine in the development of regular smoking among adolescents (Prokhorov et al., 1998).

About 100,000 young people worldwide become addicted to tobacco every day. In high income countries, 15,000 youth become addicted to tobacco every day. In middle and low income countries, 84,000 youth become addicted to tobacco every day (WHO, 2005).

Cigarette smoke contains approximately 4,000 chemical substances, 40 of which have proven carcinogenic effects. Tobacco smoking contributes to many diseases, including: 15 types of cancer and numerous diseases of the circulatory system, respiratory system and other organs as well as some diseases of mother and child (in the prenatal period and after giving birth) (Janik-Koncewicz et al., 2012).

Tobacco dependence syndrome includes a range of symptoms of behavioral and physiological background, as well as changes in the cognitive processes which appear as a result of repeated use of tobacco. They are characterized by: strong need of tobacco use, difficulty in controlling this behavior, persistent use of tobacco in spite of the harmful effects, placing tobacco above activities and obligations as well as biological conditions (such as sleep), increasing nicotine tolerance, and tobacco abstinence syndrome (Janik-Koncewicz et al., 2012).

Although 70 % of patients who smoke say they would like to quit (Mallin, 2002), of those less than 40% of smokers try to quit each year (Centers for Disease Control and Prevention, 2007), only 7.9 percent are able to do so without help (Mallin, 2002), and almost two-thirds of smokers who relapse want to try quitting again within 30 days (Fu et al., 2006) and few remain abstinent after 1 year (Fiore et al., 2008).

The efficient reduction of tobacco-related health outcomes requires the active participation of health professionals, their appropriate knowledge and attitudes. Therapeutic success is not possible without the correct diagnosis of tobacco dependence, without choosing the right medicine with effectiveness confirmed in a clinical research, and without the support of the patient to quit smoking. Treatment of tobacco dependence requires from the physicians an adequate knowledge and attitude to use it. Such knowledge and attitude should be acquired during medical study.

Although, students of medical faculties are expected to have solid knowledge about smoking hazards, a significant number of them still smoke. The proportion of smokers among medical students is lower than expected among the general population, although in the mid- 1980s both percentages were similar. Percentages of current cigarette smoking among medical students from European countries taking part in the Global Health Professionals Survey varied from 43.3% in Albania, through 36.6% in Croatia, to 18.1% in Serbia (Janik-Koncewicz et al., 2012). Diminished autonomy and control over smoking is seen in 25% of students after smoking nicotine only once and in 35% after smoking it 3 to 4 times (Scragg et al., 2008).

Smokers cite a physician's advice to quit as an important motivator for attempting to stop smoking (Ossip-Klein et al., 2000). The advice of a physician alone can improve the smoking cessation rate to 10.2 % (Jorenby and Fiore, 1999). Even when patients are not willing to make a quit attempt at this time, clinician-delivered brief interventions enhance motivation and increase the likelihood of future quit attempts (Rennard and Daughton, 2000).

In the last decade, the importance of nicotine in maintaining smoking and in cessation difficulty has been acknowledged. Consequently, this has led to efforts to measure nicotine dependence (Fagerstrom and Schneider, 1989). Nicotine dependence has been measured by a variety of methods. It is commonly, and most conveniently, measured using self-report instruments. Such measures could

facilitate tests of theories of dependence, help document how dependence develops, and help guide treatment (U.S. Department of Health and Human Services [USDHHS], 1988). Among the currently available self-report nicotine dependence measures, the Fagerström Tolerance Questionnaire (FTQ) (Fagerström, 1978; 1991) is a commonly accepted and used instrument (Fagerström & Schneider, 1989; Pomerleau, et al., 1994).

Rational:

A national study, held in 2005, showed that total prevalence of daily tobacco smoking among adults (18-years) in Egypt was 19.1%. Egyptians smoke 42 billion cigarettes annually and are expected to rise to 85 billion within the next few years. Six million Egyptians smoke cigarettes. Out of which, 439000 are under 15 years and 74000 are under 10 years (WHO, 2005). Medical students are part of these populations.

Although, students of medical faculties are expected to have solid knowledge about smoking hazards, a significant number of them still smoke. The proportion of smokers among medical students is lower than expected among the general population, although in the mid- 1980s both percentages were similar (Janik-Koncewicz et al., 2012). Diminished autonomy and control over smoking is seen in 25% of students after smoking nicotine only once and in 35% after smoking it 3 to 4 times (Scragg et al., 2008).

Hypothesis:

- The prevalence of Tobacco Use is higher in 6th year medical students as compared to 1st year students.
- The prevalence of Tobacco Use is higher in the house officers as compared to the 1st year and 6th year students.
- Studying of medicine increase the anxiety level among medical students.
- The anxiety level is grossly related to smoking.

Aim:

The aim of the study is to:

- Assess the prevalence of tobacco use in a sample of medical students and house officers at Ain-Shams University.
- Assess the impact of anxiety on tobacco use in this sample.