ORIGINAL ARTICLE

Study of pharmacotherapy role in smoking cessation giving an insight into the frequency of smoking among Zagazig University Hospitals' staff in 2013

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Abstract *Background:* "Smoking is the main avoidable cause of death around the world". It's prevalence is about one billion smokers in the global adult population. "The most cost effective and well-documented methods for smoking cessation are professional advice combined with the nicotine replacement therapy". So the main aim of hospital staff must be to give advices about smoking cessation and the ways to it. The aim of this work was to study the pharmacotherapy role in smoking cessation giving an insight into the frequency of smoking among Zagazig University Hospitals' staff in 2013.

Subjects and methods: This epidemiological, observational and prospective study was carried out at Zagazig University Hospitals from the period January 2013 to December 2013.

Subjects: 150 of those current smokers agreed to answer the study questionnaire and share in this study. The included subjects were 144 males and 6 females with a mean age of 39.48 ± 11.95 years.

Methods: The studied subjects were subjected to the following: (1) personal history including: smoking history and family history, (2) routine investigations and (3) plain X-ray. The studied subjects (150) were divided into 2 groups according to their agreement for taking pharmacotherapy: group I: included 111 subjects treated by behavioral therapy alone for 3 months. Group II: included 39 subjects treated by behavioral therapy plus pharmacotherapy (Bupropion SR tablet) for 3 months.

Results: A statistically highly significant percentage of subjects who did previous trial of quitting was found in group II than that in group I. Also, there was a statistically highly significant percentage of subjects who are less nicotine dependent in group II than that in group I, but the reverse was present in highly nicotine dependent subjects according to Fagerstrom score. The final outcome of quitting trial with a successful cessation rate was 48%, while the failed cessation rate was 52% and there was a statistically significant higher successful rate in group II (69.3%) than that in group I (40.5%). As regards occupation, the physicians had statistically highly significant higher levels of

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successful rate than para-medicals who had high levels of failed cessation rate. A statistically highly significant increase in the percentage of other smoker family member was found in failed cessation group than that in successful cessation one. Regarding Fagerstrom score, there were statistically significant increases in percentage of subjects who were less nicotine dependent in successful cessation group than that in failed cessation one and also in percentage of subjects who were highly nicotine dependent in failed cessation group than that in successful one.

Conclusion: (1) Programs promoting smoking cessation including behavioral therapy in addition to the complementary role of pharmacotherapy (Bubropion SR) enhanced the chance of success in smoking cessation. (2) This pilot study (regarding the number of the studied individuals) pointed to the smoking dilemma in a locality where smoking behavior should be brought to a minimum especially among physicians.

Introduction

"Smoking is the main avoidable cause of death around the world". Its prevalence is about one billion smokers in the global adult population [1]. Hospitals have an important role in the struggle to reduce the use of tobacco and its dangerous health effects. Tobacco smoking in medical staff affects occupational health. "Apart from its significant impact on patient's health, tobacco usage also represents an important occupational health issue in the medical profession" [2]. Although most smokers try to quit smoking, only 2–4% succeeds in quitting yearly. Hospitals play an important role in smoking cessation. "The most cost effective and well-documented methods for smoking cessation are professional advice combined with the nicotine replacement therapy". So the main aim of the hospital staff must be to give advices about smoking cessation and the ways to it [3]. The aim of this work was to study the pharmacotherapy role in smoking cessation giving an insight into frequency of smoking among Zagazig University Hospitals' staff in 2013.

Subjects and methods

This epidemiological, observational and prospective study was carried out at Zagazig University Hospitals from the period January 2013 to December 2013.

Subjects

Four thousand and five hundred subjects are working at Zagazig University Hospitals including; 800 physicians, 1300 nurses, 2000 workers and 400 paramedicals. By asking about their smoking habit, there were 1200 subjects having smoking history; 800 of them were current smokers. Only 150 of those current smokers agreed to answer the study questionnaire and share in this study.

The included subjects in this study were 144 males and 6 females with a mean age of 39.48 ± 11.95 years.

Methods

The studied subjects were subjected to the following:

Personal history

1. Age, sex, occupation, education and medical history.
2. Smoking history of subject's smoking condition at the start of smoking cessation as regards:
   (a) Cigarettes smoking:
       – Age of onset of smoking.
       – Number of cigarettes smoked per day.
       – Duration of smoking.
       – Fagerstrom test questionnaire was used to determine the degree of nicotine dependence [4]. Cigarette smokers were categorized into 3-groups according to pack-year classification into (mild, moderate and heavy) [5].
       – Mild > 20.
       – Moderate 20–49.
       – Heavy > 49.

Fagerstrom test for nicotine dependence [4]:

Question	Answer	Score
1. How soon after you wake up do you smoke your first cigarette?	Within 5 min	3
	6–30 min	2
	31–60 min	1
	After 60 min	0
2. Do you find it difficult to refrain from smoking in places where it is forbidden?	Yes	1
	No	0
3. Which cigarette would you hate to give up most?	The first one in the morning	1
	All others	0
4. How many cigarettes per day do you smoke?	10 or less	0
	11–20	1
	21–30	2
	31 or more	3
5. Do you smoke more frequently during the first hours after waking than during the rest of the day?	Yes	1
	No	0
6. Do you smoke if you are so ill that you are in bed most of the date	Yes	1
	No	0