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Original Article

Results Taken from a Smoking Cessation Clinic at a Second-Level State Hospital

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Abstract

Objective: Tobacco is the most common cause of diseases and death worldwide. Pointing out the economic, social, and other damages of tobacco and tobacco products, which also cause addiction, is important when evaluated in a modern concept, where health is defined as the general well-being of a person in physical, mental, and social terms. This study evaluated the results of patients treated in a smoking cessation clinic at a second-level state hospital.

Methods: One hundred twenty-seven patients who applied to a smoking cessation clinic were retrospectively included in this study. It was planned to evaluate the results of treatment at the end of 6 months. The patients were evaluated in terms of smoking habits, sociodemographic specifications, Fagerstrom addiction degrees, and coexisting psychiatric diseases. Patients who quit and did not quit were compared in terms of specifications and treatments.

Results: Thirty-nine of the 127 patients (307%) were women and the remaining (69.3%) were men. The average age was found to be 36.1±11.3 years. The rate of quitting for all patients was found to be 32.3%. Both groups had similarities for age, gender, and age when they started smoking. The longer a patient has been smoking for, lesser is the quitting success rate. There was a statistically significant difference in terms of the quitting success between treatment methods ($p<0.05$). The most effective method seemed to be behavioral therapy + varenicline use. This was followed by behavioral therapy + bupropion use and behavioral therapy + nicotine gum use. Nicotine patch + behavioral therapy and individual behavioral therapy have been found to have the same success percentage on smoking cessation.

Conclusion: We found that pharmacological support therapy with proven efficiency should be given with individual behavioral therapy and support by professional doctors to smokers in a difficult period such as smoking cessation.

Keywords: Tobacco, smoking cessation, treatment, outpatient clinic

Introduction

Worldwide, approximately 6 million people die every year of a disease caused by tobacco. Deaths are mostly due to cancer, heart disease, and chronic obstructive pulmonary disease. Currently, 1.5 billion people smoke worldwide (1, 2). The number of deaths is expected to reach 8 million in 2030 if it is not brought under control (1, 2). More than 600,000 deaths caused by tobacco every year are due to passive smoking. Further, more than 80% of deaths occur in developing countries (1, 2).

Tobacco use is also known to cause economic losses. Calculations show that tobacco-related health care spending varies between 0.1% and 1.1% of the gross national product of countries (3-6).

Another fact is that 70% of smokers want to quit smoking, and though approximately 1/3 of them attempt to quit each year, less than 10% can manage to not smoke for a long term (7).

Professional help and pharmacological methods in the treatment of smoking, which is considered as a disease to be treated these days, significantly increase the rate of success (8).

In our country, due to social awareness, indoor smoking bans, diseases that occur, and economic reasons, the number of people who smoke who apply to smoking cessation programs to quit smoking is increasing on a daily basis. We aimed to evaluate the characteristics of patients in smoking cessation programs and the success of smoking cessation treatment methods as the second step public hospital.

Methods

A nurse and 3 chest disease specialists who participated in and successfully completed tobacco addiction training organized by the Ministry of Health Public Health Agency of Turkey Drug Enforcement Agency serve 3 days a week in our smoking cessation clinic that started to work and admit patients in March 2012.

Between March 2012 and March 2013, 358 patients were admitted to our smoking cessation clinic. In the first interview, their detailed smoking history was questioned, and they were clearly and

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strongly advised to stop smoking. One hundred twenty-seven patients who came to the second interview after they deciding to quit smoking were included in the study. After the first interview, patients who did not participate in clinical observation and who were thus not taken for the treatment process were not included in the study as they would cause misconceptions in assessing the success of treatment.

In the first interview, the detailed medical histories of patients were taken, and their physical examination, Fagerstrom dependence tests (9), and carbon monoxide (CO) measurements were performed. Through leaflets, our clinic explained the benefits of quitting and the damaging effects of smoking, and appointments were given to patients to come back when they feel ready.

They were asked to bring the results of their routine blood tests, chest X-rays, pulmonary function tests, and ECG to the second meeting. In the second interview, the test results of the patients were examined, and if they had any health problems, the relationship of these problems with smoking was explained. They were made to determine a date to quit smoking within the following 10–15 days.

Patients were given information about treatment methods in accordance with the level of dependency. Among pharmacological treatment methods, the appropriate one [nicotine replacement therapy (NRT), bupropion, or varenicline] was started depending on the person. Only behavioral therapy (BT) was given to patients who did not want to use pharmacological treatment, who do not use it although proposed, or to the patients to whom pharmacological treatment cannot be given because of comorbidities.

During the follow-ups, an interview was planned, and it was aimed to increase the patients' motivation in the week when they quit smoking. The patients were called for an interview once a month within the first 3 months. In our study, whether the patients quit smoking at the end of 6 months was evaluated using the data in their files. Those patients who did not come to the interview in the sixth month were assessed by telephone interviews.

Because our study was retrospectively performed by screening the patient files in our smoking cessation clinic, written informed consent from the patients and ethics committee approval were not taken.

Statistical analysis

Statistical Package for the Social Sciences 16.0 software (SPSS Inc.; Chicago, IL, United States) was used for the evaluation of data.

Results

Of the 127 patients who were taken into the study 30.7% were women and 69.3% were male. The average age was 11.3±36.15 years. Most patients were married (63%). The patients were divided into two groups according to whether they quit smoking or not and were then compared again. There was no difference among age, starting age of smoking, and nicotine dependence level between both groups. It was found that as the number of years of smoking increases, the rate of quitting smoking decreases. Likewise, it was observed that as the number of pack-years increases, smoking cessation success falls.

The rate of smoking cessation within 6 months was 32.3% in the whole group. Considering the rates of smoking cessation between male and female smokers, it was seen that 30.7% of men and 35.9% of women quit smoking, and no statistical difference was observed in smoking cessation success according to gender. The CO levels of patients who quit smoking were significantly lower than those who did not (Table 1).

Psychiatric disorders were more frequently observed in patients who did not quit smoking (Table 2).

Table 1. Statistical distribution of findings of patients who quit smoking and those who did not

	People who quit smoking	People who did not quit smoking	
	Mean±SD	Mean±SD	p
Age	36.02±11.1	36.22±11.46	0.452>0.05
Starting age of smoking	16.92±5.66	15.25±3	0.083>0.05
Duration of smoking (years)	19.09±11.74	21.06±11.34	0.003<0.05
Package X Year	24.03±16.87	33.2±24.75	0.040<0.05
Level of Nicotine Dependence	5.07±2.43	6.40±2.30	0.943>0.05
Level of CO	10.43±4.01	15.89±6.13	0.001<0.005

SD: standard deviation; CO: carbon monoxide

Table 2. Proportional distribution of the psychiatric findings of patients who quit smoking and those who did not

	People who quit smoking		People who did not quit smoking	
	n	%	n	%
None	39	95.1	69	80.2
Depression	2	4.9	12	14
Anxiety disorder	0	0	2	2.3
Panic attack	0	0	1	1.2
Alcohol addiction	0	0	2	2.3
Total	41	100	86	100

Table 3. Proportional distribution according to the reasons increasing the desire of smoking in patients who quit smoking and those who did not

	People who quit smoking		People who did not quit smoking	
	n	%	n	%
Tea	4	9.8	10	11.5
After meals	9	22	13	15.1
Stress	7	17.1	12	14.1
Coffee	0	0	7	8.1
Alcohol	0	0	2	2.3
Tea. after meals	6	14.5	15	17.4
Tea. after meals. stress	10	24.4	15	17.4
After meals and stress	5	12.2	12	14
Total	41	100	86	100

A difference was not found between the patients who quit smoking and those who did not with regard to regular alcohol use.

Conditions that increase the desire of patients to smoke are presented in Table 3.

Considering the treatments performed in patients who quit smoking, 3.7% of them quit smoking with only BT, 3.7% quit with BT+nicotine patch, 14.6% quit with BT+nicotine gum, 34,1% quit with BT+bupropion, and 36.7% quit with BT+varenicline. These applied treatment methods show a statistically significant difference in terms of the success of smoking cessation ($p<0.05$). The most effective method was found to be BT+varenicline. This is followed by the use of BT+bupropion.

Discussion

Today, the use of cigarettes and other tobacco products is the single most important cause of death worldwide. Tobacco use causes the deaths of approximately more than 5 million people every year. This number is more than the sum of deaths related to tuberculosis, HIV, and malaria (10).

Although the harms of tobacco use to health was scientifically proven 50 years ago and the harms of passive smoking was proved 30 years ago, effective and conscious strategies have been applied in very countries to prevent a tobacco epidemic.

In our country, the fight against tobacco and tobacco products started in 1996 with law no 4207. After the WHO Framework Convention on Tobacco Control in 2004, work on tobacco control has gained great acceleration. Law No. 4207 was accommodated to the Framework Convention on Tobacco Control with Law No. 5727 enacted in 2008, and smoking was banned in public places. Smoke-free applications also started on July 19, 2009 in the catering industry. Thus, as of 2009, Turkey became 1 of 6 countries in the world having comprehensive smoke-free laws (11).

The cessation of smoking and treatment of tobacco addiction are one of the main elements of an integrated tobacco control program. The components of a system to help tobacco users quit are approaches of wide access such as brief advice and cessation hotlines as well as smoking cessation clinics that provide more intensive approaches such as behavioral support given by trained experts and the use of effective medications (12).

As of May 2012, 413 smoking cessation clinics are present in 309 health institutions in Turkey (11).

We have also been providing smoking cessation services with 3 chest diseases specialists and a nurse since March 2012. In our smoking cessation clinic, 32.3% of the patients were able to quit smoking at the end of 6 months. Considering the ratio of smoking cessation in the 6th month in studies where the results of treatment were evaluated, it was observed that the result of Balbay et al. (13) was higher than that of ours with a rate of 48–63%. We think that the reason for this is that the smoking cessation clinic was newly established; additionally, due to our province's geographical conditions, the patients could not easily come for interviews, especially in winter.

In our study, in terms of smoking cessation success according to gender, no significant difference was found between men and women. While some studies in literature report that men can quit smoking more easily, some studies show that there is no difference in terms of gender (14-16).

Unlike earlier studies showing that success in quitting smoking is directly proportional to age, in our study, there was no significant difference between the age of patients who quit smoking and that of those who did not (17, 18).

In the group that did not quit smoking, the number of smoking years and pack-years was significantly higher. Just as there are studies showing that in addition to the number of cigarettes smoked per day, the number of smoking years is also associated with quitting smoking (17), there are also studies proving that it does not have any influence (19-21).

Psychiatric disorders such as depression, anxiety, and psychotic disorders are known to be more in patients using cigarette and tobacco than in those who do not use them. Those with psychiatric disorders quit smoking with more difficultly than the normal population (22).

There was a psychiatric disorder in 14.9% of the patients who applied to smoking cessation clinics, and psychiatric disorders were observed more in patients who did not quit smoking.

Smoking cessation treatment is a supportive therapy comprising pharmacological treatment and BT with motivation (23-26).

Studies indicate that either is effective, but when used together, the success rate increases (27-29).

In our study, 96.3% of the patients who quit smoking received pharmacological and support treatment. We believe that during smoking cessation, the addition of an appropriate pharmacological treatment to the support treatment with intense motivation brings the highest success.

Conclusion

As a result, the most important part of the fight against tobacco and tobacco products is to prevent starting smoking, but it is also very important to help millions of addicts to quit smoking.

Professional support and pharmacological treatment significantly increase the success rate compared to those who try to quit without any help. We believe that it is necessary to extend smoking cessation clinics where this support is available.

Ethics Committee Approval: Ethics committee approval was not received due to the retrospective nature of this study.

Informed Consent: Written informed consent was not received due to the retrospective nature of this study.

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