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INVESTIGATION OF PHYSICAL ACTIVITY AND HEALTHY LIFESTYLE BEHAVIOURS OF INDIVIDUALS APPLIED TO HOSPITAL FOR RESPIRATORY DISTRESS - PİLOT STUDY

Ebru Şeker Abanoz[1], Fahri Köroğlu [2], Özge Tahran [3], Tuğba Çivi Karaaslan [4], Gökşen Kuran Aslan[5], Özge Ünal Bayraktar[6], Esen Kıyan[7]

Abstract

OBJECTIVE: To investigate the demographic characteristics, exercise habits and healthy lifestyle behaviors of patients applied to hospital for respiratory distress.

METHODS: The demographic and clinical data of 26 patients applied to Istanbul University, Istanbul Medical Faculty, Department of Chest Diseases and Yalova State Hospital with respiratory distress were recorded. Physical activities of the subjects were evaluated with "International Physical Activity Questionnaire (IPAQ) and healthy lifestyle behaviors with" Healthy Lifestyle Behavior Scale II (HLBS-II).

RESULTS: Four women (%15.4) and 22 men (%84.6) with a mean age of 65.85±9.72 years were included in the study. Average body mass index was 26.85 ± 4.06 kg/m^2. Cigarette use rates; %19.2(5) were smokers, and %73.1(19) had stopped smoking. The mean cigarette use was 36.15±20.47 pack years. Modified Medical Research Council Dyspnea Scale values of the subjects varied; 0(n = 1), 1(n = 14), 2(n = 4), 3(n = 6), 4(n = 1). In the last year, the number of attacks with respiratory problems was 1.04±1.68, the number of unplanned admissions to hospital was 3.77±7.01, and the number of hospitalizations was 0.46±1:10. FEV1/FVC ratio was %.76.15±8.48 The rate of regular exercise was %15.4(4), IPAQ average total score was 1597.42±1893.56 and HLBS-II average score was 130.58±21.37.

DISCUSSION: %92.3 of the patients with respiratory distress had a history of smoking, exercise habits were very low, physical activity and healthy lifestyle behaviors were moderate.
We think that giving education about smoking cessation and exercise to individuals, will improve their physical activity levels and healthy lifestyle behaviors and reduce the respiratory problems they will encounter.

[1] İstanbul Üniversitesi-Cerrahpaşa, Lisansüstü Eğitim Enstitüsü, Fizyoterapi ve Rehabilitasyon Anabilim Dalı, İstanbul. (ebruseker@gmail.com)

[2] Yalova Üniversitesi, Termal Meslek Yüksekokulu, Fizyoterapi ve Rehabilitasyon Bölümü, Yalova. (fahrikoroglu.yalova@gmail.com)

[3] Beykent Üniversitesi, Sağlık Bilimleri Yüksekokulu, Fizyoterapi ve Rehabilitasyon Bölümü, İstanbul. (ozgetahran90@gmail.com)

[4] İstanbul Üniversitesi-Cerrahpaşa, Sağlık Bilimleri Fakültesi, Fizyoterapi ve Rehabilitasyon Bölümü, Nörolojik Fizyoterapi ve Rehabilitasyon Anabilim Dalı, İstanbul. (tugba.civi@istanbul.edu.tr)

[5] İstanbul Üniversitesi-Cerrahpaşa, Sağlık Bilimleri Fakültesi, Fizyoterapi ve Rehabilitasyon Bölümü, Fizyoterapi ve Rehabilitasyon Anabilim Dalı, İstanbul. (goksenkuran@yahoo.com)

[6] Yalova Devlet Hastanesi, Göğüs Hastalıkları Bölümü, Yalova. (ozdegirmen@yahoo.com)

[7] İstanbul Üniversitesi, İstanbul Tıp Fakültesi, Göğüs Hastalıkları Ana Bilim Dalı, İstanbul. (ekiyan@istanbul.edu.tr)

KEYWORDS
Exercise, Respiration, Health Behavior, Healthy Lifestyle, Smoking

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INTRODUCTION

According to World Health Organization statistics, 70-80% of deaths in developed countries and 40-50% of underdeveloped countries are caused by diseases caused by lifestyle. According to the National Burden of Disease and Cost Effectiveness Project data, ischemic heart disease are the main causes of death in both sexes in Turkey, cerebrovascular disease and is reported to have COPD. In the formation of these noncommunicable diseases, one's own attitude and behavior, in other words, the way of life, play a big role. Healthy lifestyle is defined as the control of all behaviors that can affect the health of the individual and the selection of the behaviors that are appropriate to his / her health status in the regulation of daily activities. Individuals who adopt a healthy lifestyle behave in a conscious manner about healthy eating, increasing intellectual capacity, prevention of cardiovascular diseases, increasing immunity level, maintaining normal body weight and coping with stress appropriately. As a result of this, individuals feel better and gain a more positive perspective, work effectively and act, and lead a longer and better quality life (1).

Smoking cessation is a necessary treatment for people who suffer from respiratory distress and reduces the prevalence of respiratory symptoms, the number of hospitalizations, the frequency of exacerbations, and overall mortality (2). In addition to quit smoking, appropriate physical activity and high-quality nutrition also play an important role in delaying the disease process and reducing the outcomes associated with respiratory distress (3,4). Therefore, it is recommended to adopt healthy lifestyle behaviors such as smoking cessation, regular exercise and healthy nutrition for self-management of respiratory distress and prevention of secondary pathologies (5).

The most information available on lifestyle management of respiratory distress is limited to high-income countries; data for middle and low income countries are insufficient (6). Our aim in this study was to investigate the demographic characteristics, exercise habits and healthy lifestyle behaviors of patients applied to hospital for respiratory distress.

METHODS

The demographic and clinical data of 26 patients with respiratory distress were collected in Istanbul University, Istanbul Medical Faculty, Department of Chest Diseases and Yalova State Hospital from January to March 2019. The demographic data of the patients were collected with the information

form created by the researchers. The information form included the personal and clinical characteristics of the patients.

The inclusion and exclusion criteria are listed below:

Criteria for inclusion in the study

- Being 40-65 years old
- Applying with respiratory distress
- Not participating in pulmonary rehabilitation or any exercise program for the last 6 months
- To be able to read, write and understand Turkish language

Criteria for exclusion in the study

- Having cooperation problems
- Diagnosed psychiatric disease
- Having had respiratory tract infection in the last 1 month
- Any disease affecting the musculoskeletal system.

Healthy Lifestyle Behaviors Scale II (HLBS-II) developed by Walker et al. in 1996 was used to determine healthy lifestyle behaviors. In 2008, it was translated into Turkish and validity-reliability was made by Bahar et al. (7). This scale consisted of 6 sub-factors consisting of spiritual development, health responsibility, physical activity, nutrition, interpersonal relationships and stress management. The minimum score of the 52 items was 52 and the maximum score was 208. The higher the scores, the higher the individual's stated health behaviors.

Physical activities of the subjects were evaluated with "International Physical Activity Questionnaire (IPAQ). It was developed with the support of the World Health Organization (WHO) and the American Center for Disease Control and Prevention (CDC). It was translated into Turkish and validity-reliability was made by Saglam et al. (8). It provides information about the time and residence time spent by individuals in mild, moderate and severe activities. When evaluating the activities, it is accepted that each activity should be performed for at least 10 minutes at a time. For each activity level, the MET value (metabolic equivalent) is multiplied by day and minute to obtain the "MET-min / week" score (9). The score obtained is classified as having no physical activity (MET = <600 energy level), insufficient activity level (MET = 600-3000 energy level) and sufficient activity level (MET => 3000 energy level).

IBM SPSS statistics for windows, version 20.0 was used for the analysis of the study data. Descriptive and frequency determination methods were used for analysis.

RESULTS

Four women (15.4%) and 22 men (84.6%) with a mean age of 65.85±9.72 years were included in the study. Average body mass index was 26.85±4.06 kg/m^2. Cigarette usage rates; 19.2% (n=5) were smokers, and 73.1% (n=19) had stopped smoking. The mean cigarette usage was 36.15±20.47 pack years. Modified Medical Research Council Dyspnea Scale values of the subjects varied; 0 (n=1), 1 (n=14), 2

(n=4), 3 (n=6), 4 (n=1). For the last year, the mean number of attacks with respiratory problems was 1.04±1.68, the mean number of unplanned admissions to hospital was 3.77±7.01, and the mean number of hospitalizations was 0.46±1.10. FEV1/FVC ratio was 76.15±8.48%. The rate of regular exercise was 15.4% (n=4), IPAQ average total score was 1597.42±1893.56 and HLBS-II average score was 130.58±21.37. Descriptive statistics are shown in table 1 and frequencies are shown in table 2.

Tablo 1. Descriptive statistics

	Mean	Std. Deviation
Age	65.85 years	9.723
Body Mass Index	26.85 kg/m^2	4.066
Smoking Pack Years	36.15 pack years	20.47
Attacks in the Last Year	1.04	1.68
Unplanned Admissions to Hospital	3.77	7.01
Hospitalization	0.46	1.10
FEV1/FVC	76.15 %	8.487
HLBS-II	130.58	21.377
IPAQ	1597.42	1893.567

Tablo 2. Frequencies

		Percentile (%)	Frequency (n)
Gender	Woman	15.4	4
	Man	84.6	22
MMRC	0	3.8	1
	1	53.8	14
	2	15.4	4
	3	23.1	6
	4	3.8	1
Regular exercise	Yes	15.4	4
	No	84.6	22
Smoking	Yes	19.2	5
	No	7.7	2
	Quit	73.1	19

DISCUSSION

Most of the patients with respiratory distress had a history of smoking. Their exercise habits were very low and their physical activity level and healthy lifestyle behaviors were moderate. We think that giving education about smoking cessation and individual exercises will improve their physical activity levels and healthy lifestyle behaviors and reduce the respiratory problems they will encounter.

Epidemiological studies have investigated the long-term effects of regular physical activity on the decline of lung function. Studies show that lung function improves as physical activity levels increase (10,11). In addition, regular physical activity in active smokers shows beneficial effects on lung function (12-14). The prevalence of low physical activity is higher in patients with FEV1 <80% (15). In our study, we found that the level of physical activity was low in patients with respiratory distress. From this point of view, we think that it is important to improve physical activity in patients with respiratory distress.

According to a study in the literature; being a man, being 49-60 years old, being married, having a bachelor's degree and above, having a good socio-economic status, being working, having no additional disease, getting education about their illnesses increased healthy lifestyle behaviors and quality of life. Healthy lifestyle behaviors of patients with heart failure were lower than healthy individuals (16). In a study with prostate cancer patients, it was found that healthy lifestyle behaviors of the patients were affected by the treatment of the patient. On the other hand, a moderate positive correlation was found between healthy lifestyle behaviors and quality of life in patients with prostate cancer. It has been mentioned that the increase in the quality of life in patients with healthy lifestyle behaviors is beneficial in coping with the disease and developing positive health behaviors in patients (17). In our study, we found that healthy lifestyle behaviors of patients with respiratory distress were moderate. We think that awareness raising activities, trainings and rehabilitation programs aimed at improving healthy lifestyle behaviors of patients will be beneficial in coping with respiratory distress as well as improving the quality of life.

Knowing the physical activity level and the effects of healthy lifestyle behaviors on the individuals with respiratory failure, revealing the physical activity, anxiety, depression and healthy lifestyle behaviors of the individuals in the health studies conducted for these individuals will increase the awareness on these issues.

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