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PREVALENCE OF CHRONIC PHYSICAL DISEASES IN OBESE WOMEN

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ABSTRACT

Background and objectives: Obesity is accepted as independent risk factors for many diseases In this context, this study was conducted to determine the prevalence of chronic physical diseases in obese women. **Methods:** The sample of this descriptive and cross-sectionally study consisted of 108 women patients who hospitalized with a chronic physical diseases in a university's public hospital, BMI was 30≥ kg/m2, had a sufficient cognitive level and agreed to participate in the study were included in the study sample. Data were obtained using patient identification form. The data were interpreted in the SPSS 22.0 package program. In distribution of demographic and disease related characteristics of women, mean, standard deviation and percentage distribution were used. **Results:** The average age of obese women is 62.27±12.10, 49.1% of them are illiterate, 65.7% are married. 6.5% of women are currently smoking. About47.2% of obese women have two or more chronic physical diseases. When chronic physical disease distribution in obese women was examined, it was determined that 31.2% had diabetes, 28.1% had hypertension and 17.2% had asthma. It was determined that 8.4% of the participants did not use the treatment regularly. **Conclusion:** Obesity is accompanied by many chronic physical diseases such as diabetes, hypertension and asthma. It is necessary to evaluate women for obesity, to raise awareness for obesity, to create supportive individual programs for obese women to lose weight, and to monitor obesity in order to prevent morbidity and mortality related to chronic physical diseases.

Keywords: Obesity, Women, Chronic disease, Prevalence

INTRODUCTION

Rapid economic and technological progresses in developed and developing countries have led to changes in nutritional habits and physical activity levels (Shen, Goyal & Sperling, 2012; Ford, Li & Sattar, 2008). In parallel with these changes, the prevalence of obesity in the adult population and the incidence of obesity-related diseases have rapidly been increasing all over the world (Berkoz & Yalin, 2008). The percentage of obese individuals aged 15 and above in Turkey was 19.6% in 2016 (Turkish Statistical Institute, 2017). According to TURDEP-I, The Turkish Epidemiology Survey of Diabetes, Hypertension, Obesity and Endocrine Disease, the prevalence of obesity in individuals over the age of 20 was 32.9% in women and 13.2% in men. In the TURDEP-II study conducted in the same regions, the prevalence of obesity was found to be 44.2% in women and 27.3% in men according to the first research. Accordingly, in Turkey, the obesity increase was 34% in women. In the same study, the general obesity rate in our country was 31.2% (Satman *et al.*, 2013).

Obesity is defined as abnormal or excessive fat accumulation in the body that can pose a risk or threat to a healthy body. Overweight is defined as Body Mass Index's (BMI) being 25 or above, being obese is defined as BMI of 30 or above (National Institutes of Health, National Heart, Lung and Blood Institute, 1998). The most important cause of obesity is the imbalance between the energy taken and the energy consumed. Inadequate physical activity, excessive and incorrect feeding habits, age, level of education, socio-cultural factors, income status, hormonal and metabolic factors,

psychological problems, smoking, alcohol habits, number of births, some drugs used and genetic risk factors lead to obesity(In-Iw & Biro, 2011; Bulucu Altunkaynak & Ozbek, 2007). Obesity and overweight are accepted as independent risk factors for many diseases (Brumpton *et al.*, 2013; Sismanopoulos *et al.*, 2013). It has long been known that obesity is strongly associated with various chronic diseases such as cardiovascular diseases, type 2 diabetes, metabolic syndrome, hypertension, dyslipidemia and various cancers due to the negative effects of obesity on all systems in the organism (Grove & Lambert, 2010; Obesity Prevention and Control Program of Turkey, 2010).

Chronic diseases are health problems that can lead to irreversible structural and functional abnormalities in one or more systems, which usually require regular and continuous treatment, care and follow-ups (Ozdemir & Tasci, 2013). Obesity, an important risk factor in the development of chronic diseases, causes health problems such as psychological problems and social incompatibility in individuals with the development of additional physical diseases (Obesity Prevention and Control Program of Turkey, 2010). It is known that many chronic physical diseases are closely related to obesity. For this reason, knowing the factors causing obesity and its treatment steps are important for obesity prevention and effective treatment of obesity (Bulucu Altunkaynak & Ozbek, 2007).

RESEARCH METHODOLOGY

Aim and type of the study

This research was conducted descriptively and cross-sectionally to determine the prevalence of chronic physical diseases in obese women.

Sample

The population of this study consisted of 192 female patients who were hospitalized with a chronic physical diseases in general internal medicine, endocrine, cardiology, neurology and chest diseases clinics of a university's public hospital between October 15 and November 18, 2017. A total of 108 women whose BMI was 30≥ kg/m^2, whodid not have any psychiatric disease, had no verbal communication difficulty, had a sufficient cognitive level and agreed to participate in the study were included in the study sample.

Data Collection Tools

Data were obtained using patient identification form. This form consists of 15 questions examining the individual information (age, education, marital status, number of children, profession, smoking, number of daily meals etc.) and disease knowledge (name of the disease, number of chronic diseases, regular treatment etc.) prepared by the researchers in accordance with the literature review. The height and weight of the participants were measured by the researchers. For measuring height and weight, weighing scales and tape measures were used. By recording the individual's height in cm, weight in kilogram (kg), body mass index (BMI) was calculated by kg/m^2 formula.

Application

The data were collected by the researchers face-to-face in a room where the patient could easily be interviewed. Researchers informed the women about the aim and importance of the study. The filling of the study forms took about 10-15 minutes.

Ethics

Every woman who would take part in the study was informed verbally about the content and voluntary participation of the study and their written consents were taken.

Evaluation of the Data

The data were interpreted in the SPSS 22.0 package program. In distribution of demographic and disease related characteristics of women, mean, standard deviation and percentage distribution were used.

Limitations

The study was limited in time and sample. Because it was carried out with patients having inpatient treatment in a single hospital and meeting the criteria for inclusion.

RESULTS

The average age of obese women is 62.27±12.10, 49.1% of them are illiterate, 65.7% are married, 47.2% have 5 and more children, and 95.4% are housewives. 6.5% of women are currently smoking, 68.5% eat 3 meals a day and 69.4% are not on any diet. 31.5% of the participants can not perform their daily life activities

themselves and 26.9% perceive their general health as bad Table 1.

Table 1: Distribution of sociodemographic characteristics of obese women

Sociodemographic Characteristics	n	%	Sociodemographic Characteristics	n	%
Age (years) 62.27±12.10			**Smoking**		
<40	7	6.5	Yes	7	6.5
40-64	57	52.8	Never smoked before	85	78.7
65 and above	44	40.7	Stopped smoking	16	14.8
Level of education			**Number of daily meals**		
Illiterate	53	49.1	2	15	13.9
Literate	21	19.4	3	74	68.5
Primary school graduate	29	26.9	4	6	5.6
Secondary school graduate	5	4.6	5	11	10.2
Higher education	-	-	6	2	1.9
Marital status			**Dieting**		
Single	2	1,9	No diet	75	69.4
Married	71	65.7	Diet without salt	9	8.3
Widow/er	35	32.4	Diabetic diet	24	22.2
Number of children			**General health condition**		
1-2	19	17.6	Good	42	38.8
3-4	38	35.2	Moderate	37	34.3
5 and more	49	47.2	Bad	29	26.9
Profession			**Ability to perform daily life activities**		
Housewife	103	95.4	Performing by oneself	74	68.5
Retired	5	4.6	Performing by support	34	31.5

47.2% of obese women have two or more chronic physical diseases.When chronic physical disease distribution in obese women was examined, it was determined that 31.2% had diabetes, 28.1% had hypertension and 17.2% had asthma. It was determined that 8.4% of the participants did not use the treatment regularly Table 2.

Table 2: Distribution of Chronic Disease Related Characteristics of Obese Women

Characteristics Related to Disease	n	%	Characteristics Related to Disease	n	%
Number of chronic disease			**Name of the chronic disease***		
1	57	52.8	Diabetes	49	31.2
2	30	27.8	Hypertension	44	28.1
3	17	15.7	Asthma	27	17.2
4	4	3.7	Heart failure	17	10.8
			Rheumatoid arthritis	9	5.7
Regular application of treatments			Cancer	7	4.5
Regular	86	79.6	Kidney failure	4	2.5
Partially	13	12.0			
Irregular	9	8.4			

**n has increased.*

DISCUSSION

Obesity is a worldwide epidemic and it affects all age and social groups of the population, especially the female gender. This epidemic, in particular, affects the life span and quality of women negatively (Ergin, 2014). As a percentage of body weight, women tend to gain more weight than men (Arslan & Ceviz, 2007). Thus, with the effect of biological factors, women are getting fatter than men from the beginning of puberty. Adolescence, pregnancy, number of births, duration of breastfeeding, menopausal period and retirement are considered risky periods for women (Gavin, Simon & Ludman, 2010). Almost half of the women in our study were illiterate, had more than five births, and almost all of them were housewives. In a study conducted, it was determined that housewives had a higher obesity prevelance than working women and education level and regular diet habits were found to be an important factor in controlling body weight (Arslan & Ceviz, 2007). Another study found that obesity was prevalent in women who married at early ages and smoked (Al Nsour *et al.*, 2013).

Obesity is known to pose a risk for various diseases such as cardiovascular diseases, type 2 diabetes, hypertension, dyslipidemia, metabolic syndrome, certain hormone dependent cancers and obstructive sleep apnea syndrome (Deshmukl *et al.*, 2005). It has been determined that approximately half of obese women in our study had two or more chronic physical diseases and mostly had diabetes, hypertension and asthma. In studies, obesity was found to seen mostly in individuals with diabetes (Wang *et al.*, 2005; Weyer *et al.*, 2000), hypertension (Çoban *et al.*, 2003; Geronooz & Krzesinski, 2000; Parati, 2002) and asthma (Perez & Piedimonte, 2014; Enfield, Shim & Sharma, 2009) and it increased the risk of cancer (Mijovic *et al.*, 2009; Chia *et al.*, 2007). In a evidence-based review study, it is emphasized that chronic physical diseases such as diabetes, hypertension and cancer are commonly seen in women who are obese (Kulie *et al.*, 2011).

CONCLUSION

In conclusion, obesity is accompanied by many chronic physical diseases such as diabetes, hypertension and asthma. It is necessary to evaluate women for obesity, to raise awareness for obesity, to create supportive individual programs for obese women to lose weight and to monitor obesity in order to prevent morbidity and mortality related to chronic physical diseases.

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