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Evaluation of Physical Activity Status, Anthropometric Measurement and Healthy Lifestyle of Women Aged 20-45 Years Who Applied to a Private Nutrition Clinic

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Summary

Objective: The aim of this study was to evaluate the obesity, physical activity status and healthy lifestyles of women aged 20-45 years who applied to a private nutrition clinic.

Method: The study was carried out among 79 women aged 20-45 years who applied to a private clinic in Mersin. Participants were asked to complete questionnaires in order to examine data related to their daily physical activities and lifestyles. Questionnaires were filled out by the researcher face to face and in the form of question and answer. One-way analysis of variance and t-test results were evaluated by frequency analysis method.

Results: In our study, the mean total score was found to be 123.4 according to SESL II. 93.7% of the participants had inactive physical activity level, 2.5% had minimal physical activity level and 3.8% had very active physical activity level.

Conclusion: In our study, healthy lifestyle behaviors of the participants were in average levels. It was found. This should be improved and the effects of lifestyle behaviors on health should be explained.

Keywords: Healthy lifestyle; Physical activity; Anropometric measurements

Introduction

According to the definition of the World Health Organization (WHO), health; It is not only the absence of disease or infirmity, but also a state of complete physical, mental and social well-being. A healthy individual has physical and mental freedom and can do his daily work individually [1]. When we look at developing and developed countries, it is seen that most of the causes of death are preventable. According to the data of the World Health Organization, mortality rates of 40-50% of underdeveloped countries and 70-80% of developed countries are attributed to lifestyle [2]. A lifestyle can be defined as a set of actions that are in the hands of individuals and whose consequences affect them. A healthy lifestyle is the behavior that a person has acquired in accordance with his own standards, regulating all his movements and daily activities that affect his health [3]. Health is an important factor not only for individuals but also for the future of societies. In addition to adopting a healthy lifestyle for healthy individuals and societies, the adoption of physical activity by individuals is very important. Individuals doing appropriate physical activity from an early age will reduce the diseases that may be encountered in later life. Physical activity should be adopted by individuals as a lifestyle and should be given importance [4]. The duration and intensity of physical activity have an effect on increasing the quality of life and preventing disease in the future. At the same time, anthropometric measurements of individuals are also important in terms of health [5].

Materials and Methods

This research was carried out among 79 volunteer women aged 20-45 years who applied to a private clinic in Mersin province between August and November 2017. The individuals participating in the study were asked to fill in the questionnaires in order to determine their lifestyles. Questionnaire forms were filled by the researcher face to face and in the form of question and answer. The demographic and anthropometric measurements of the individuals participating in the research were recorded by questioning. In the study, the Tanita BC-730 device was used for body weight, fat-muscle ratios and body water measurements. For body component analysis, individuals participating in the study were measured at least 2 hours after food and water consumption, without socks, shoes and only underwear. It is important that individuals pass 24 hours after they engage in heavy physical activities. In addition, it was requested that alcohol consumption be stopped 24 hours before. While the heights of the individuals participating in the study were in an upright position with the back, shoulders and head, the heels were taken together in accordance with the Frankfurt plane. The waist circumference of the individuals was measured from the middle of the lowest rib and iliac bone with the help of a non-stretchable tape measure, and the hip circumference was measured from the widest part of the hip [1]. At the same time, the body mass indexes of the women participating in the study were calculated. The demographic characteristics of the people were determined by applying a personal questionnaire consisting of questions such as age, marital status, dietary patterns and the food they consume daily, the frequency of consumption of ready-made food, the snacks consumed, etc.

In this study, the short form of the International Physical Activity Questionnaire was applied to determine the physical activity of individuals (International Physical Activity Questionnaire, IPAQ). The Healthy Lifestyle Behaviors Scale II was applied in order to determine the healthy lifestyle of the individuals participating in the study and to observe their behaviors. The first form of this scale consists of 48 items. In 1987, Walker et al. Developed by Nutrition, exercise, health responsibility, self-development, interpersonal support and stress management are the sub-dimensions of this scale [6]. SYBDÖ II questionnaires were filled in by the researcher by establishing a face-to-face and question-answer dialogue. The distribution of the answers given to the survey questions was analyzed by frequency analysis. The sub-dimensions of the healthy lifestyle behaviors scale were calculated for each participant, and descriptive statistics were given along with the scores obtained with the international physical activity form. Correlation analysis was conducted to determine the relationship between anthropometric measurements and healthy lifestyle behaviors scale, the relationship

between physical activity and anthropometric measures, and the relationship between Physical activity and healthy lifestyle behaviors scale sub-dimensions. Whether the sub-dimensions of the healthy lifestyle behaviors scale differ significantly according to eating habits were examined by t-test and one-way analysis of variance in independent groups. In case of significant difference as a result of one-way analysis of variance, TUKEY test was used to determine from which group the difference originated. Analyzes SPSS 20.0 software was examined at 95% confidence level.

Results

79 women who applied to a private nutrition clinic participated in the study. When their distribution according to marital status is examined; The rate of those who are single is 45.6% and the rate of those who are married is 41.8%. The rate of those who are divorced is 8.9% and the rate of those who are widowed is 3.8%. 54.4% of the sample had no children. The rate of those with one child is 15.2%, the rate of those with 2 children is 17.7%, and the rate of those with 3 or more children is 12.7%. When the distribution according to education level is examined; The rate of those who are literate is 6.4% (5 people), the rate of those who are primary school graduates is 9% and the rate of those who are secondary school graduates is 10.3%. The rate of those who graduated from high school is 38.5%, the rate of those who graduated from college is 34.6%, and the rate of those with a doctorate is 1.3%. 88.6% of the sample did not have a disease diagnosed by a doctor, 2.5% had asthma, 1.3% had diabetes, 1.3% had heart, 1.3% had polycystic, 1% had 3 had psoriasis and 1,3% had thyroid diseases.

In addition to their illness, 13% use medication, and 87% do not use medication. The mean body weight of the sample was 71.8 ± 14.6 kg, with the lowest body weight being 45 kg and the highest body weight being 106 kg. The average height is 162.6 ± 12.6 cm, the shortest person is 163 cm and the tallest is 175 cm. The mean body fat percentage is 35.7 ± 7.3 , with the lowest 21% and the highest 51.6%. The mean body muscle percentage is 35.3 ± 4.7 , with the lowest percentage being 24% and the highest percentage being 46%. Body water average is 50.5 ± 3.1 , with the lowest 44% and the highest 55%. The average waist circumference is 83.4 ± 10.9 cm, the lowest waist circumference is 62 cm and the widest waist circumference is 114 cm. The mean hip circumference is 103.9 ± 10.9 cm, the lowest hip circumference is 88 cm, and the widest waist circumference is 138 cm. The average BMI value is 27.4 ± 5.5 kg/m², the lowest BMI value is 18.5 kg/m² and the highest BMI value is 43.3 kg/m². The average waist/hip ratio was 0.8 ± 0.1 , the lowest ratio was 0.68 and the highest ratio was 0.97 (Table 1). According to the SYBDÖ II scoring system, the total mean score of our study was found to be 123.4 (Table 2 & 3).

Table 1: Anthropometric measurement distributions of the participants.

	Minimum	Maximum	Avarage	Std. Deviation
Body Weight (kg)	45,0	106,0	71,8	14,6
Height (cantimeter)	63,0	175,0	162,6	12,6
Body fat percentage (%)	21,0	51,6	35,7	7,3

Body muscle percentage (%)	24,0	46,0	35,3	4,7
Body water (kg)	44,0	55,0	50,5	3,1
Waist circumference (cantimeter)	62,0	114,0	83,4	10,9
Hip circumference (cantimeter)	88,0	138,0	103,9	10,9
BMI (kg/m ²)	18,5	43,3	27,4	5,5
Waist/Hip ratio	0,68	0,97	0,8	0,1

Table 2: Healthy lifestyle scale total score.

	N	Minimum	Maximum	Avarage	Std. Deviation
Healthy Lifestyles (Total)	78	65,0	161,0	123,4	16,1

Table 3: Point Average of UFAA.

	N	Minimum	Maximum	Avarage	Std. Deviation
met	79	0,00	2970,00	193,41	435,45

When the Met scores obtained are examined; it is seen that the lowest met score is 0, the highest met score is 2970, and the average of the met scores is 193.41. In order to determine the relationship between anthropometric measurements and healthy lifestyle behaviors scale, correlation analysis was performed and correlation coefficient was obtained. According to the results of the correlation analysis; There is no significant relationship between anthropometric measurements and the sub-dimensions of the healthy lifestyle behaviors In order to determine the relationship between physical activity and anthropometric measurements, correlation analysis was performed and correlation coefficients were obtained. According to the results of the correlation analysis; None of the anthropometric measurements were found to be statistically significantly correlated with the physical activity met score. No correlation was found between individuals who do sports and anthropometric measurements. When the relationship between physical activity and healthy lifestyle behaviors scale is examined, according to the results of the correlation analysis; While there is a significant 29.4% positive correlation between the met score and physical activity, one of the sub-dimensions of the healthy lifestyle behaviors scale ($r=0.294$), the met score has no statistically significant relationship with other sub-dimensions (Table 4). The averages of the sub-dimensions of the healthy lifestyle behaviors scale according to the frequency of consuming snacks and the t-test results of the independent groups were examined to determine

whether there is a significant difference between these averages. According to the t test results in independent groups; While physical activity and nutrition sub-dimensions differ significantly according to the frequency of consuming snacks ($p<0.05$), other sub-dimensions do not differ significantly according to the frequency of consuming snacks. Nutrition and physical activity levels of individuals who consume 2-3 snacks are significantly higher than those who consume one snack (Table 5).

Table 4: The relationship between physical activity and healthy lifestyle behaviors scale * $p<0,05$.

		Met
Health Responsibility	r	0,108
	p	0,347
Physical Activity	r	0,294
	p	0,009*
Nutrition	r	0,194
	p	0,088
Spiritual Development	r	0,184
	P	0,107
Social Relations	R	0,222
	P	0,051
Management of Stress	R	0,162
	P	0,157

Table 5: The frequency of consuming snacks in the sub-dimensions of the healthy lifestyle behaviors scale averages by * $p<0,05$.

If so, how often do you do it?		n	Avarage	Std. Deviarion	t	p
Health Responsibility	1 kere	20	2,36	0,62	-1,096	0,279
	2-3 kere	27	2,52	0,42		
Physical Activity	1 kere	20	1,62	0,53	-2,503	0,016*
	2-3 kere	27	2,04	0,59		
Nutrition	1 kere	20	2,08	0,39	-2,484	0,017*
	2-3 kere	27	2,39	0,44		
Spiritual Development	1 kere	20	2,87	0,62	-0,336	0,738
	2-3 kere	27	2,92	0,39		

Social Relations	1 kere	20	2,91	0,48	-0,013	0,990
	2-3 kere	27	2,91	0,37		
Managmenet of Stress	1 kere	20	2,44	0,50	-0,207	0,837
	2-3 kere	27	2,46	0,35		

Conclusion

In our study examining anthropometric measurements and healthy life style. The rate of those who eat one main meal is 11.5%, the rate of those who eat 2-3 main meals is 74.4%, the rate of those who eat more than one main meal is 14.1%. In the study of Kavaz, the rate of women fed with 3 main meals was reported as 71.3%. In the same study, it was reported that the reasons for skipping meals were expressed by the lack of time [7]. In our study, 93.6% of the participants stated that there were times when they skipped meals, while 6.4% stated that they did not. The most frequently skipped meal was breakfast with a rate of 53.4%. Özçelik O et al. [8]. reported in their study that the morning meal was the most skipped meal with a rate of 41.25% [8]. 27.6% of the participants eat before going to sleep at night, 7.6% of them get up and eat at night. Saygin O et al. [9]. In his study, it was reported that 35.7% of the individuals participating in the study ate before going to bed at night [9]. A study conducted in the USA reported that 72.82% of the participants ate before going to bed at night [10]. In our study, the mean BMI was found to be 27.4kg/m². This result shows us that the average of the individuals participating in the study is in the obesity range. In a study conducted in Kayseri, the mean BMI of the samples was found to be 25.7kg/m² [11]. In a study conducted on women in the province of Izmir, the average BMI of the participants was found to be 26.0kg/m². While the average BMI was reported as 27.7kg/m² in the study conducted in Manisa, it was found as 27.2kg/m² in the study conducted in Isparta [12]. According to the research conducted by Doğrucan AB et al. [13]. in 2018, the average BMI of women was found to be 25kg/m². In the study conducted in TDHS 2003, the average BMI was 26.5kg/m²; this rate was found to be 26.7kg/m² in 2013 [13].

When asked about the regular exercise habits of the individuals participating in the SYBDÖ II questionnaire, 33.8% never; 41.6% answered sometimes. When asked about their habits of exercising for 20 minutes and/or longer at least three times a week, 54% of the individuals gave the answer never. Do you do light to moderate exercise? 59.7% never answered the question, Do you exercise until your heart rate accelerates? 65.3% never gave the answer to the question. The findings reveal that the participants in our study mostly adopted a sedentary life. Prosecutor et al. In a study conducted in 2006, it was determined that 68% of individuals had low physical activity [14].

A high HLBS II total score means that the individual adopts healthy lifestyle behaviors. As a result of this evaluation, evaluation scores between 52 and 208 points are obtained. Statistical data of the SYBDÖ II questionnaire were calculated and the total average score in our study was found to be 123.4 (Table 2). In the study of Ünüvar RK et al. [15]. in which women were sampled, the mean HLBS was found to be 122.99 [15]. In the study of Pasinlioğlu T

et al. [16]., the mean HLBS score was reported as 117.5 [16]. In a study that sampled women between the ages of 15-49, the mean HLBS score was found to be 124.5 [17]. When the scores of the sub-dimensions of the SYBDÖ II questionnaire are examined, the average of Health Responsibility is 20.9, the average of physical activity is 14.0, the average of nutrition is 19.7, the average of spiritual development is 24.8, interpersonal relations is 24.8, and the stress management score is 18.8. was found as. In our study, it was the physical activity sub-dimension that received the lowest value from the HLBS II sub-dimensions. In a study conducted on women in Manisa, it was reported that the lowest score was determined as physical activity [18]. The short form of the international physical activity questionnaire was applied to determine the physical activity duration and activity levels of the participants. When the physical activity scores of the people from the obtained met scores are examined; It was observed that 93.7% of the participants were at the inactive physical activity level, 2.5% at the minimal physical activity level, and 3.8% at the very active physical activity level. In the study conducted by Alemdar S et al. [19]. in 2016, it was determined that 60% of the participants were inactive, 38.2% were minimally active, and 1.8% were very active [19]. In a study based on university students, it is reported that more than 50% of the students have low physical activity. At the same time, physical activity levels of female students were found to be lower than males [14]. In the study of Buckworth J et al. [20]. in the United States, physical activity decreases from adolescence; It has been reported that 70% of American adults have adopted a sedentary life, and 61% of women have not done moderate physical activity in the last 7 days [20].

In our study, when the relationship between anthropometric measurements and healthy lifestyle behaviors scale was examined, no significant relationship was found between these two parameters. At the same time, no relationship was found in the parameters made between physical activity and anthropometric measurements. In a study conducted with women as a sample in Adana, no significant relationship was found between body weights and height ratios of people who do sports [21]. Koruk I et al. [22]. also found no significant relationship between obesity and physical activity [22]. Similar to our study, in the study of Okyay A et al. [23]., no significant relationship was found between body weight and exercise [23]. In our study, the level of spiritual development and stress management sub-dimensions of those who think that they eat healthy is significantly higher than those who do not think that they eat healthy. Spiritual development sub-dimension that differs significantly have been reported [18]. The short form of the international physical activity questionnaire was applied to determine the physical activity duration and activity levels of the participants. When the physical activity scores of the people from the obtained met scores are examined; It was observed that 93.7%

of the participants were at the inactive physical activity level, 2.5% at the minimal physical activity level, and 3.8% at the very active physical activity level. In the study conducted by Alemdar S et al. [19]. in 2016, it was determined that 60% of the participants were inactive, 38.2% were minimally active, and 1.8% were very active [19].

According to the results of the TUKEY test conducted by the prosecutor to determine which group the difference originated from; The spiritual development level of those who see themselves as weak and normal is significantly higher than those who see themselves as fat. Ünüvar RK et al. [15]. reported that individuals who describe their health status as good have high spiritual development and stress management sub-dimensions [15].

Discussion

In our study conducted with 79 women aged 20-45 years who applied to a private nutrition clinic, the anthropometric status, healthy lifestyle behaviors and physical activity status of individuals were examined. It was observed that the majority of the individuals were in the inactive physical activity level and their body mass indexes were in the obesity category. We have determined that the individuals participating in our study who take responsibility for health do not skip meals and eat appropriately. It was found that there is a significant relationship between the spiritual development and interpersonal communication sub-dimensions of people who consume snacks and eat regularly. In our study, the level of spiritual development and stress management sub-dimensions of those who think that they eat healthy was found to be significantly higher than those who do not think that they eat healthy. No significant relationship was found between physical activity, anthropometric measurements and healthy lifestyle behaviors of the individuals participating in the study.

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