



The Effect of Exercise on Female Confidence

Egzersiz Yapmanın Kadın Öz Güvenine Etkisi

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THE EFFECT OF EXERCISE ON FEMALE CONFIDENCE

ABSTRACT:

Aim: The research was carried out to evaluate the confidence levels of women who exercise compared to women who do not exercise.

Method: This descriptive, cross-sectional and online study was conducted with 311 women aged 18 years and older who met the study criteria through the social media groups between April 30 and August 30, 2021. The data were gathered online using an introductory information form created by the researchers which included questions about women's sociodemographic characteristics, health status, healthy lifestyle behaviors, and exercise status. In addition, Female Self-Confidence Scale and Google Survey Form were also used to collect data. In the evaluation of the data, number percentage distribution, chi-square analysis, Mann Whitney U test, and Kruskal Wallis test were used.

Results: 45% of the women who took part in the study constituted the group of the women who exercised, and 55% of the women participating in the study constituted the group of the women who did not exercise. It was determined that the mean age of the women who exercised was 31.75 ± 9.70 , and that of the women who did not exercise was 28.75 ± 9.33 . It has also been determined that the women who exercised had a higher working rate than those who did not exercise, perceived their economic situation better, had higher alcohol consumption rates, perceived their health status better, and had more time for themselves and the appearance, social relations, and inner self-confidence sub-dimensions of FSCS and the total scale score average were higher and there was a statistically significant difference ($p < 0.05$).

Conclusions and Suggestions: The result of our study shows that exercising has a positive effect on women's self-confidence.

Keywords: Woman; Self-Confidence; Exercise.



EGZERSİZ YAPMANIN KADIN ÖZ GÜVENİNE ETKİSİ

ÖZ:

Amaç: Araştırma, egzersiz yapan kadınların egzersiz yapmayan kadınlara göre öz güven düzeylerinin değerlendirilmesi amacıyla yapılmıştır.

Metod: Tanımlayıcı, kesitsel tipte ve çevrimiçi olan bu çalışma, 30 Nisan-30 Ağustos 2021 tarihleri arasında sosyal medya grupları aracılığı ile 18 yaş ve üzerinde olan ve çalışma kriterlerine uygun 311 kadın ile çalışma yürütülmüştür. Veriler, araştırmacılar tarafından hazırlanan, kadınların sosyodemografik özelliklerini, sağlık durumu, sağlıklı yaşam biçimi davranışları ve egzersiz yapma durumlarını sorgulayan tanıtıcı bilgi formu ve Kadın Öz Güven Ölçeği ile Google Anket Formları aracılığı ile çevrimiçi olarak toplanmıştır. Verilerin değerlendirilmesinde sayı yüzde dağılımı, ki-kare analizi, Mann Whitney U testi, Kruskal Wallis testi kullanılmıştır.

Bulgular: Çalışmaya katılan kadınların %45'i egzersiz yapan %55'i ise egzersiz yapmayan kadın grubunu oluşturmuştur. Egzersiz yapan kadınların yaş ortalamasının 31.75 ± 9.70 , egzersiz yapmayan kadınların ise 28.75 ± 9.33 olduğu, egzersiz yapan kadınların egzersiz yapmayan kadınlara göre çalışma oranlarının daha yüksek olduğu, ekonomik durumunu daha iyi algıladıkları, alkol alma oranlarının daha fazla olduğu, sağlık durumlarını daha iyi algıladıkları, kendilerine daha çok zaman ayırdıkları ve KÖGÖ'nin görünüş, sosyal ilişkiler ve içsel öz güven alt boyutları ile toplam ölçek puan ortalamalarının daha yüksek olduğu ve istatistiksel olarak anlamlı bir fark olduğu saptanmıştır. ($p < 0.05$).

Sonuçlar ve Öneriler: Çalışmamızın sonucunda egzersiz yapmanın kadının öz güvenine olumlu yönde etkisi olduğu belirlenmiştir.

Anahtar Kelimeler: Kadın; Öz Güven; Egzersiz.



INTRODUCTION

Exercise can be defined as regular, planned, and repetitive physical activities aimed at maintaining fitness, healing and improving parts of the body (Tunay & Tedavi, 2008; Caspersen et al., 1985).

When the literature is analyzed, it is discovered that the exercises that people did regularly played an essential role in reducing the severity of coronary heart disease, regulating Type 2 diabetes, reducing the risk of osteoporosis, and increasing the bone strength of individuals (Halim et al., 2021; Atalay et al., 2021). It has been reported that doing exercise regularly among women has positive effects on feeling more fit, preventing weight gain, delaying the age of menopause, and mental and social health (Tunay & Tedavi, 2008; Doymaz, 2013; Babic et al., 2014).

In addition, many studies have shown that physical activity and exercise have positive effects on important psychological conditions such as physical self-per-

ception, psychological well-being, positive body image, self-esteem and self-confidence (Bay & Yilmaz, 2020; Coknaz et al., 2018; Bakir & Danis, 2020).

Confidence is the feeling of relying on yourself (TDK, 2022). A self-confident person can look at the events she encounters in a positive and realistic way, evaluate her experiences correctly, make the right decisions for herself and give effective reactions to the changes in her life. People with high self-confidence can assess whether they can change events. They may also show the courage to change the conditions they can, by accepting the conditions they cannot change (Soner, 2000). People with low self-confidence also require the admiration and acceptance of others to feel successful. They are afraid of failure, avoid struggle, and cannot tolerate criticism (Turan-Basoglu, 2007). The level of self-confidence can vary from person to person. Too much or too little confidence can cause an individual to be successful or unsuccessful in directing her life as she wishes (Ferreros, 2011; Kelsey, 2014; Yurtseven, 2011).

Self-confidence, which is one of the basic elements of psychological life, is an important emotional necessity for women. A woman whose basic needs are not adequately met and who does not see herself as valuable, to some extent, lives in distress (McKay & Fanning, 2014). Therefore, the fact that women's having confidence is important. In order to increase self-confidence, it is quite important for women to engage in activities that they love and see themselves as successful. Her efforts will be rewarded and her self-confidence will increase when she is successful in dealing with the works that she believes will allow her to apply her skills (Sari, 2016).

It is known that one of the sources of women's self-confidence is their physical appearance (Sari, 2016). The slim appearance of women is a social value accepted by many segments of society. The positive development in body perception will also positively affect the social life of the person and increase the self-confidence of the individual. In the studies conducted, it has been determined that individuals who feel physically good-looking have a positive body image, are happy with themselves, and related to this, have a higher level of self-confidence (Bilgin, 2011).

When the literature is examined, it is seen that there are many studies that reveal the relationship between self confidence and many factors, such as gender family relations, the internet, academic success, perfectionism, anxiety (Kaya & Tastan, 2020). However, no study revealing the relationship between the exercise status of women aged 18 and over and their self-confidence levels through a scale developed specifically for women has been found. Accordingly, this scientific research was planned as a descriptive, cross-sectional, and online questionnaire study to evaluate the confidence levels of women who exercise compared to women who do not exercise.

METHODS

Design and Setting: The research is a descriptive, cross-sectional, and online survey study conducted with women in social media groups between April 30 and August 30.

Recruitment and Data Collection: The universe of the study consisted of social media groups in which women took part. Women who actively use these groups were invited to participate in the study. The invitation included an information sheet explaining the study, assuring students that participation was voluntary and anonymous, and included a link to a consent sheet and the online survey. The questionnaires prepared through the Google form were left open for the participants to fill out between April 30 and August 30, 2021. The reminder messages were sent twice to social media accounts during the data collection process.

Sample Size: The Raosoft sample size calculation program was used to calculate the sample size of the study (<http://www.raosoft.com/samplesize.html>). Using the sample size formula of the unknown universe, it was aimed to reach a minimum of 267 women in the study ($\alpha=0.05$, $1-\beta=0.90$). Considering that there may be data loss in the study, the pattern effect was taken as 1.2 and it was aimed to reach 321 participants. When the data was evaluated after the study was completed, it was determined that 10 participants had filled out the questionnaire incompletely, and the study was concluded with the data of 311 participants.

The Inclusion Criteria: Being 18 years old or older (WHO, 2010), the participants must be living in Turkey, being a woman, doing one of pilates, non-instrument pilates, fitness or cardio exercises at least twice a week for at least one month (in 30-60 minute sessions) (WHO, 2010), not doing exercise, accepting the voluntary consent at the beginning of the questionnaire, knowing how to read Turkish and answering the data collection forms completely,

The Exclusion Criteria: Having a diagnosis of a chronic disease that prevents exercise (HT, DM), being pregnant or postpartum, being a man, having a psychiatric diagnosis or being treated for a psychiatric condition (Pharmacotherapy or Psychotherapy).

Survey Instruments: Introductory Information Form and Female Self Confidence Scale (FSCS) were used as data collection tool.

Introductory Information Form: This form, which was developed by the researchers in line with the literature, consists of 21 questions in total, 10 of which include women's sociodemographic characteristics and 11 questions are about their

health status, healthy lifestyle behaviors, and exercise status (Yurtcicek Erguntop, 2019; Merdinoğlu, 2017).

Female Self Confidence Scale (FSCS): FSCS, developed by Yurtcicek Erguntop and Satilmis in 2019 is a scale that provides an evaluation of self-confidence in women aged 18 and over, consisting of a total of 38 questions and 5 sub-dimensions. The scale is filled in by either reading it aloud by the researcher to the participant or by the participant based on self-report. The scale is also of the 5-point likert type and is scored as strongly agree=5, agree=4, undecided=3, disagree=2, strongly disagree=1.

The FSCS sub-dimensions are as follows, respectively: 1. Satisfaction (1st and 2nd questions), 2. Social relationship (3rd, 4th, 5th, 6th, 7th, 8th, and 9th questions), 3. Inner self-confidence (10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th and 20th questions), 4. Appearance (21st, 22nd, 23rd, and 24th questions), 5. Performance (25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th and 38th questions). 7th, 8th, 13th, 14th, 22nd, 23rd, 30th, 31st questions on the scale are reverse-scored. In order to calculate the scale score, first the reverse-scored items are translated. The lowest score that can be obtained from the scale is 38, and the highest score is 190. It is interpreted as 'as the scores obtained from the scale increase, the levels of self-confidence also increase.' The same situation is also true for sub-dimensions. The alpha value of the scale is 0.97. In this study, the alpha value is 0.80. Written permission was obtained from the responsible author for the use of the scale.

Ethical Consideration: Approval for the study was obtained from Kirklareli University Clinical Researches Ethics Committee (Reference number: E-69456409-199-10161/Date:30/04/2021). All the procedures were performed in accordance with the rules regarding the studies involving human participants by considering the ethical standards of the institutional and/or national research committee and the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Data Analysis: For data analysis, the IBM SPSS V23 (SPSS, Inc., Chicago, IL, USA) was used. The suitability of the data for the normal distribution was examined with The Kolmogro-Smirnov test. For comparison of categorical data, frequency, percentage, and mean \pm s.d and median (minimum and maximum) are shown with Chi-square. The Mann Whitney U test was used to compare data that did not show a normal distribution. $p < 0.05$ was considered as statistically significant.

RESULTS

In this study, in which the effect of exercising on women's self-confidence was evaluated, it was determined that the mean age of the exercised women participating in the study was 31.75 ± 9.70 , their mean height was 163.92 ± 5.40 , their mean weight was 59.45 ± 7.97 , their mean body mass index (BMI) was 22.15 ± 3.04 .

It has been determined that 61.4% of the participants are single, 83.6% have undergraduate and graduate degrees, 58.6% work, 16.4% have less income than expenses, 59.3% have no children, 83.7% have nuclear family, and 55.7% live in the district.

It was determined that the mean age of the non-exercising women who participated in our research was 28.75 ± 9.33 , the mean height was 163.65 ± 5.36 , the mean weight was 61.84 ± 11.57 , the mean body mass index (BMI) was 23.08 ± 4.19 , 62% of them were single, 74.7% of them had a bachelor's degree or higher, 56.1% were not working, 30.4% have less income than their expenses, 63.2% did not have children, 86.5% were in nuclear family structures, and 50.9% lived in the district.

While the groups related to height, weight, BMI, marital status, education level, having children, family structure, and the place where they live most were similar ($p > 0.05$, Table 1), a statistically significant difference was found between the groups in age, employment, and economic status ($p < 0.05$ Table 1).

Table 1. Comparison of women's sociodemographic characteristics between groups

Variables	Woman Who Exercises (n=140)		Woman Who Does Not Exercise (n=171)		p and test
	Ort±SS		Ort±SS		
Age	31.75±9.70		28.75±9.33		Z: 9430.500 p: 0.001
Height	163.92±5.40		163.65±5.36		Z: 11551.000 p: 0.594
Weight	59.45±7.97		61.84±11.57		Z: 10877.000 p: 0.166
BMI	22.15±3.04		23.08±4.19		Z: 10715.000 p: 0.112
	n	%	N	%	
Marital Status					
Single	86	61.4	106	62.0	χ^2 : 0.010
Married	54	38.6	65	38	p: 0.920
Education Level					

Primary Education	6	4.3	6	6.6	χ^2 : 0.542 p: 0.763
High School	17	12.1	17	18.7	
Undergraduate and Postgraduate	117	83.6	148	74.7	
Employment Status					
Be in Employment	82	58.6	75	43.9	χ^2 : 6.665 p: 0.010
Be Unemployment	58	41.4	96	56.1	
Income Status					
Income Less Than Expense	23	16.4	52	30.4	χ^2 : 15.580 p: 0.000
Income Equals Expense	67	47.9	88	51.5	
Income More Than Expense	50	35.7	31	18.1	
Status of Having Children					
Yes	57	40.7	63	36.8	χ^2 : 0.487 p: 0.485
No	83	59.3	108	63.2	
Family Structure					
Nuclear Family	117	83.6	148	86.5	χ^2 : 0.957 p: 0.620
Extented Family	15	10.7	17	9.9	
Fragmented Family	8	5.7	6	3.5	
Place of Residence, Stayed Longest					
Village-Town	18	12.9	18	10.5	χ^2 : 1.819
District	78	55.7	87	50.9	
City-Metropolis	44	31.4	66	38.6	p: 0.403

χ^2 : Chi-square test

Z: Mann Whitney U Test

When comparing the health, activity, and exercise status of women between groups, it was determined that 71.4% of women who exercised did not smoke, 57.1% did not drink alcohol, 22.1% perceived their health status as 'very good', 57.1% could spare time for themselves outside of family/work a few days a week, and it was also determined that 78.4% of women who did not exercise did not smoke, 78.4% of them did not drink alcohol, 7% perceived their health status as 'very good', 33.3% could spare time for themselves outside of family/work a few days a week, and 35.1% were more interested in music.

While smoking status did not show a statistically significant difference between the groups ($p > 0.05$), it was determined that there was a statistically significant dif-

ference in alcohol use, perception of health status, and sparing time for themselves ($p < 0.05$, Table 2).

Table 2. Comparison of women's health and activity status between groups

Variables	Woman Who Exercises (n=140)		Woman Who Does Not Exercise (n=171)		p and test*
	n	%	N	%	
Smoking Status					
Yes	40	28.6	37	21.6	p: 0.159 1.987
No	100	71.4	134	78.4	
Alcohol Use Status					
Yes	60	42.9	36	21.1	p: 0.000 17.150
No	80	57.1	135	78.9	
Perception of Health Status					
Very Good	31	22.1	12	7.0	p: 0.000 19.024
Good	78	55.7	94	55.0	
Medium	31	22.1	65	38.0	
Bad	0	0	0	0	
How Much Time Do You Spare for Yourself Outside of Family and Work?					
A Few Days a Week	80	57.1	57	33.3	p: 0.000 31.994
Once a Week	28	20.0	42	24.6	
Once in a Month	28	20.0	34	19.9	
Never	4	2.9	38	22.2	

*Chi-square test

When the comparison of the total and sub-dimension scale mean scores of FSCS between the groups is examined, it has been determined that the mean score of the performance sub-dimensions of the women who exercised was 54.35 ± 4.53 , the mean of the appearance sub-dimension score was 13.76 ± 1.75 , the mean of the satisfaction sub-dimension was 8.56 ± 1.17 , the mean of the social relations sub-dimension was 24.32 ± 3.38 , the mean of the inner self-confidence sub-dimension was 42.90 ± 3.70 , and the total mean score was 143.90 ± 10.76 . It was determined that the performance sub-dimension mean score of the women who did not exercise was 53.37 ± 5.60 , the appearance sub-dimension mean score was 13.26 ± 1.72 , the satisfaction sub-dimension mean score was 8.12 ± 1.69 , the social relations sub-dimension mean score was 23.26 ± 2.89 , the internal self-confidence sub-dimension mean score was 41.69 ± 4.15 , and the total sub-dimension mean score was 139.72 ± 11.00 . As a result of the analysis, it was determined that there was a statistically significant difference in terms of total scale scores between the groups of women who exerci-

sed and those who did not exercise ($p=0.003$, Table 3). In the group that did exercise, the total mean score of the FSCS was found to be considerably higher than in the group that did not exercise. In addition, when the sub-dimension mean scores of the scale were evaluated, it was found that the mean scores of the appearance, social relations and internal self-confidence, which are the sub-dimensions of the FSCS, of the participants in the exercising group were statistically higher than those in the non-exercising group.

Table 3. Comparison of the total and sub-dimension scale mean scores of the female self-confidence scale between groups

Sub-Dimensions And Total Mean Scores	Minimum- Maximum Score That Can Be Obtained From the Scale	Woman who exercise (n: 140)		Woman who does not exercise (n: 171)		p and test' value
		Minimum- Maximum Score Obtained From the Scale	Obtained $\bar{X} \pm SS$	Minimum- Maximum Score Obtained From the Scale	Obtained $\bar{X} \pm SS$	
Performance Sub-Dimension	14-70	46-65	54.35±4.53	36-65	53.37±5.60	p: 0.306 11164.500
Appearance Sub-Dimension	4-20	10-18	13.76±1.75	8-19	13.26±1.72	p: 0.035 10332.000
Satisfaction Sub-Dimension	2-10	5-10	8.56±1.17	2-10	8.12±1.69	p: 0.060 10532.500
Social Relations Sub-Dimension	7-35	15-31	24.32±3.38	16-30	23.26±2.89	p: 0.001 9324.000
Inner Self-Confidence Sub-Dimension	11-55	35-50	42.90±3.70	29-49	41.69±4.15	p: 0.021 10159.000
Total Mean Score	38-190	121-168	143.90±10.76	110-163	139.72±11.00	p: 0.003 9610.500

*The Mann-Whitney U test was used.

DISCUSSION

The World Health Organization (WHO) states that vigorous aerobic exercise for 75 minutes once a week and moderate-intensity aerobic exercise for 150 minutes twice a week will help strengthen the muscle and bone system (WHO, 2010). When the literature is examined, it has been determined that regular exercise has positive effects on maintaining or reducing current weight, reducing cholesterol and glucose levels in the blood, improving sleep patterns, controlling some chronic diseases, increasing muscle strength and endurance by increasing flexibility and it also has a positive effect on people's psychological development (Bilici, 2018; Koruc & Bayar, 2004; Mirzaiinjmadadi et al., 2006; Shojaa et al., 2020). When the foreign and local literature is examined, there are many studies that evaluate the effects

of sports activities such as sports, recreational activities and fitness, individual or team sports, physical activity, and on the self-confidence of women in different age groups or both women and men. (Lirgg, 1992; McAuley et al., 2000; Musa, 2020; Dabrowska-Galas et al., 2021; Akpınar & Yagan, 2019; Yalcin & Ayhan, 2020; Ekin-ci et al., 2014; Aykora, 2019). However, no study has been found in which the effect of exercising with a self-confidence scale developed specifically for women was evaluated on women's self-confidence. This study investigated the effect of exercise on women's self-confidence in exercising and non-exercising women. The results of study were discussed within the framework of the results of other studies investigating the confidence of men and women who exercised and did not exercise in different age groups.

The World Health Organization (WHO) recommends physical activity for elderly and adults over the age of 17. Accordingly, women aged 18 and over were included in the study. In the study, it was determined that the mean age of the women in the non-exercise group was 28.75 ± 9.33 , while the mean age of the women in the exercise group was 31.75 ± 9.70 , and there was a statistically significant difference between the groups. It can be said that this difference is due to factors such as weight gain due to the decrease in basal metabolic rate with increasing age, the inclusion of physical activity in the primary treatment of diseases such as osteoporosis, weight gain during marriage, pregnancy, and breastfeeding, as well as the increasing importance given to idealized physical characteristics for women in recent years (Kizilay, 2012; Alpozgen & Ozdincler, 2016; Durgun, 2012; Demir et al., 2021).

Body mass index (BMI) is obtained by dividing an individual's weight in kilograms by the square of their height in meters. According to the classification suggested by WHO, values below $18,50 \text{ kg/m}^2$ are considered underweight, values between $18,50 - 24,99 \text{ kg/m}^2$ are considered ideal weight, values between $25,00 - 29,99 \text{ kg/m}^2$ are defined as pre-obesity and BMI values of $30,00 \text{ kg/m}^2$ and above are defined as obesity (Flegal et al., 2013; Tokunaga et al., 1991; WHO, 2022). It was determined that the mean BMI of the women in the exercising group participating in the study was 22.15 ± 3.04 , while the mean BMI of the women who did not exercise was 23.08 ± 4.19 , and there was no statistically difference between the groups. According to the above-mentioned classification, the mean BMI of all women participating in the study was an ideal weight. According to the TNSA 2018 data, it has been reported that 37% of women between the ages of 15-49 had an ideal weight and the mean BMI of all women was 27.

In the study by Durgun (2012) to determine the prevalence of obesity in the province of Bursa, it was determined that the average BMI of women was $26.6 \pm 6.1 \text{ kg/m}^2$ (Durgun, 2012). It was determined that the mean BMI of all women participating in this study was lower than the one in the TNSA 2018 and Durgun

2012 studies, and it can be said that the difference in the sample groups caused this situation.

When the women were examined in terms of marital status, education level, having children, family structure, and place of residence, no statistically significant difference was found in terms of groups, and the groups were similar in terms of these characteristic. On the other hand, it was determined that there was a statistically significant difference between the groups in the perception of working status and economic status between the women in the exercise group and the women in the non-exercise group. It is understood that the exercise group's level of work is higher and the economic situation is better than the non-exercising group's. 47% of women exercising stated that their income is equal to their expenses, and 35% of them stated that their income is more than their expenses. In the study of Musa (2020), with individuals who do sports in the fitness center, it was determined that the economic status of the participants was medium (71.7%), high (12.3%), and very high (1.9%). This research is in parallel with the study of Musa (2020), and it can be said that exercise is related to high income status.

Today, approximately 1.3 billion people worldwide smoke cigarettes. According to the data of 'Global Adult Tobacco Research 2016' in our country, it was determined that the prevalence of tobacco use among women was 19.2%, and according to the 'Turkey Health Survey' data announced by the Turkish Statistical Institute (TUSI) in 2019, it was also determined that the prevalence of tobacco use among women was 14.9% (TUSI, 2019). Although the rate of smoking tends to decrease gradually, it continues to be an important public health problem (TUSEB-TUHKE, 2021). It was determined that 28.6% of the women participating in the study who exercised and 21.6% of the women who did not exercise smoked, and the groups were similar in terms of this feature. In the study of Yurtcicek Erguntop (2019), who developed FSCS, it was reported that 29.8% of the women smoked (Yurtcicek Erguntop, 2019). In the study of Saygin et al. (2009) with 360 amateur and professional athletes, it was determined that amateur athletes had a higher smoking rate than professional athletes (Saygin, 2009). Although it was determined that the smoking status of the women in the non-exercising group in this study was higher than that of the women who exercised, it can be said that the results of the study are in parallel with the results of the study of Saygin et al. (2009).

It was determined that 42.9% of the women participating in the study who exercised and 21.1% of the women who did not exercise used alcohol, and there was a statistically significant difference between the groups. According to the Turkey Drug and Drug Addiction Monitoring Center's (TDAMC) 2011 Turkey Drug Report, it has been determined that the lifetime alcohol use rate in women is 44% (Kocak et al., 2015; EMCDDA, 2011). In the study of Yurtcicek Erguntop (2019), it was determined that 12.3% of women drank alcohol and this situation was higher

in the women with good economic status. In this study, it was determined that the rate of alcohol use was higher in women who exercised than in women who did not exercise, and the results were found to be in agreement with 2011 TDAMC data. The rate of alcohol use of women who do not exercise is similar to the study findings of Yurtcicek Erguntop (2019). On the other hand, the fact that women who exercise have better economic status and higher consumption rates is compatible with the literature.

When the health status perception of the women participating in the study was evaluated, it was determined that the women who exercised perceived their health status (22.1%) better than the women who did not exercise (7%), and there was a statistically significant difference between the groups. In the study of Yurtcicek Erguntop (2019), it was determined that this rate was 6.7%. When the results of our study and results of Yurtcicek Erguntop's study are evaluated, it can be said that women who exercise feel healthier than women who do not exercise.

It was determined that the women participating in the study who exercised spared more time for themselves outside of family and work than the women who did not exercise, and there was a statistically significant difference between the groups in terms of this situation. It has been determined that 57.1% of women who exercised spared time for themselves a few or more times a week, and this rate was 33.3% for women who did not exercise. In the study of Yurtcicek Erguntop (2019), it was reported that 23.3% of women spare time for themselves a few days a week or more. The data obtained from the non-exercise group of the study shows parallelism with the findings obtained by Yurtcicek Erguntop (2019). It can be said that women who take time for themselves use this time period to exercise.

While 45% of the women participating in the study were doing one of the instrumented pilates, fitness or cardio exercises, 55% were the individuals who did not exercise. In the study, when the FSCS means total score of the women who exercised (143.90 ± 10.76) and the total means scores of the women who did not exercise (139.72 ± 11.00) were compared, it was determined that there was a statistically significant difference between the groups ($p=0.003$, Table 3). According to this difference, it was determined that the FSCS total mean scores of the group that did exercise were considerably higher than the group that did not exercise. In the study by Yurtcicek Erguntop (2019), it was determined that the total mean scores of women from FSCS was $140,49 \pm 33,60$, and it was determined that it was 139.12 ± 17.19 in the study of Bakir and Danis (2020) that was conducted with female university students aged between 18 and 24, and it is seen that our study is similar to the total mean scores of the group of women who do not exercise. In the study, it was determined that the women who exercised had higher FSCS total scores. In the descriptive study in which Bakir and Danis (2020) evaluated the self-confidence of 850 female university students, it was determined that the total scale scores of the

female students doing sports as an activity were 142.50 ± 17.11 , and when evaluated on the basis of activity type, it was found that the highest average score belonged to the female students who did sports. In the study of Esentas et al. (2017) on the self-confidence levels of 326 female leader candidates, it was determined that the self-confidence scale scores of those female leader candidates who regularly do sports are significantly higher than those who do not (Esentas et al., 2017).

In the studies by Esentas, which involve women, it has been reported that doing sports or physical activity in the fitness center increases the self-confidence of individuals and enables them to have a good self-perception (Musa, 2020; Akpınar & Yagan, 2019; McAuley et al., 2000). In addition, in the studies examining the self-confidence levels of people who have an active sports life, a positive relationship was found between doing sports and giving high self-confidence (Can & Kacay, 2016; Dogru, 2017; Liu et al., 2015). The results of our study show similarities with the literature findings. In the study there was no statistically significant difference between the groups in the performance and satisfaction sub-dimension scale mean scores of the FSCS applied to the participants, while a statistically significant difference was found between the groups in the internal self-confidence sub-dimensions and the total scale mean scores ($p < 0.05$).

While the mean score of the women in the exercise group obtained from the FSCS performance sub-dimension was 54.35 ± 4.53 , the mean score of the women in the non-exercising group was 53.37 ± 5.60 , and there was no statistically significant difference between the groups. In the descriptive study conducted by Bakir and Danis (2020) with 850 female students between the ages of 18 and 24, it was determined that the female self-confidence scale performance sub-dimension mean score was 53.06 ± 7.97 . In the cross-sectional-descriptive study conducted by Yurtcicek Erguntop (2019), who developed FSCS, with 610 women aged 18 years and older, and in which the women evaluate their self-confidence, it was determined that individuals' FSCS performance sub-dimension mean scores were 20.19 ± 4.40 . The sample age range of this study and the sample age range of Yurtcicek Erguntop's (2019) study are similar but the sample age range of this study is different from the sample age range of Bakir and Danis's (2020) study. On the other hand, the data of the study shows parallelism with the data of Bakir and Danis (2020) but not with the data of Yurtcicek Erguntop (2019). It is thought that this difference may be due to the sociodemographic and cultural characteristics of the places where the studies were conducted.

In the study, it was determined that the satisfaction sub-dimension mean score of the women in the exercising group was 8.56 ± 1.17 , and the satisfaction sub-dimension mean score of the women in the non-exercising group was 8.12 ± 1.69 . It was determined that the satisfaction sub-dimension mean score was 7.78 ± 2.10 in Yurtcicek Erguntop (2019)'s study, and it was 8.19 ± 1.99 in Bakir and Danis's (2020)

study. When the findings obtained as a result of the studies conducted in Turkey and the results of this research are examined, it can be said that age and exercise status do not cause a significant difference in the mean scores of the FSCS satisfaction sub-dimension.

It has been reported that individuals who go to fitness centers have significantly increased their self-confidence as their social anxiety decreases (Musa, 2020). In the study, it was determined that the mean appearance sub-dimension score of the women who exercised was 13.76 ± 1.75 , and the mean sub-dimension score of the women who did not exercise was 13.26 ± 1.72 , and there was a statistically significant difference between the groups.

In the study of King et al. (1999) with secondary school students, it was reported that the thoughts of girls about their appearance affected their self-confidence. It was determined that the mean sub-dimension score of appearance was 14.16 ± 4.03 in the study of Yurtcicek Erguntop (2019) and it was 13.26 ± 2.47 in the study of Bakir and Danis (2020) (Yurtcicek Erguntop, 2019; Bakir & Danis, 2020). Physical activity improves social appearance anxiety, according to Edwards et al. (2005) and Marquez and McAuley (2001). (Edwards et al., 2005; Marquez & McAuley, 2001). When the literature and the results of this study are evaluated, it can be said that exercising has an effect on the appearance of women and, therefore, it affects their self-confidence.

In the study, it was determined that the mean score of the social relations sub-dimension of the women who exercised was 24.32 ± 3.38 , and the mean score obtained from the relations sub-dimension of the women who did not exercise was 23.26 ± 2.89 , and there was a statistically significant difference between the groups. It was determined that the social relations sub-dimension mean score of women in Yurtcicek Erguntop (2019)'s study was 25.53 ± 6.83 , and the mean score obtained from the social relations sub-dimension of the female students between the ages of 18-24 in Bakir and Danis (2020)'s study was 23.32 ± 3.97 . In the study conducted by Ozbek et al. with high school students, it was determined that doing sports has a positive effect on the social relations of individuals. The research findings and the study results of Yurtcicek Erguntop (2019), Bakir and Danis (2020) and Ozbek et al. (2017) show parallelism with each other (Yurtcicek Erguntop, 2019; Bakir & Danis, 2020; Ozbek et al., 2017).

It is stated that self-esteem is an important element of welfare and is a structure open to development through exercise (Fox, 2000). In the study, it was determined that the internal self-confidence sub-dimension mean score of the women in the exercise group was 42.90 ± 3.70 , and the sub-dimension mean score of the women in the non-exercising group was 41.69 ± 4.15 , and it was also determined that there was a statistically significant difference. In their study with 179 students, Ozbek

et al. (2017) reported that students who adopted a sedentary lifestyle had lower internal and external self-confidence levels than sports students. Similarly, it has been reported that sportive activities in Yalcin and Ayhan (2020) studies have a positive effect on internal self-confidence. In our study, it was determined that the internal self-confidence levels of women who exercised were higher than those who did not exercise, and the results of Ozbek et al. (2017) and Yalcin and Ayhan (2020) studies show parallelism with our study (Ozbek et al., 2017, Yalcin & Ayhan, 2020). It was determined that the mean inner self-confidence sub-dimension score of the women in Yurtcicek Erguntop (2019)'s study was 41.33 ± 10.54 , and that of female students between the ages of 18 and 24 in Bakir and Danis (2020)'s study was 41.28 ± 5.82 . The internal self-confidence sub-dimension mean scores of the women who participated in this study and did not exercise are similar to the study findings of Yurtcicek Erguntop (2019) and Bakir and Danis (2020). In addition, it is seen that the inner self-confidence sub-dimension score averages of the group of women who exercised in the study were higher.

CONCLUSIONS AND SUGGESTIONS

It is stated by the studies that participating in physical activities and doing exercise increase the happiness hormones of individuals and increase their self-confidence levels in relation to this (Terlemez, 2019). In our study, it was determined that the sub-dimensions on the FSCS of appearance, social relations, and inner self-confidence and the total scale averages of the women who exercised were higher than those who did not exercise, and there was a statistically significant difference. In addition, it has been determined that the average age and alcohol use rates of women who exercise are higher than those who do not exercise. The most important positive effect of women's participation in working life is that they gain economic independence. The self-confidence of the women who gain economic power increases; she has a greater sense of control over her life (Adak, 2007). Based on the findings of our study, it can be said that working and economically independent women spare more time for themselves and exercise as an activity, and this has a positive effect on their self-confidence. In this context, it can be recommended to conduct awareness activities for women about the importance of exercising regularly.

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REFERENCES

- Adak N. (2007). Kadınların ikilemi: İş ve aile yaşamı. *Sosyoloji Dergisi*, 17, 137-152.
- Akpinar, S. Yağan, K. (2019). Fitness merkezlerine giden bireylerin özgüven düzeylerinin incelenmesi, *Uluslararası Sosyal Araştırmalar Dergisi* 12(67) 1133-1139.
- Alpozgen, A. Z., Ozdinciler, A. R. (2016). Fiziksel aktivite ve koruyucu etkileri: Derleme. *Sağlık Bilimleri ve Meslekleri Dergisi*, 3(1), 66-72.
- Atalay, E., Taşlıalan, Z., Yıldız, Ö. E., Nihat, Ç. A. Ç. A. Osteoporoz, astım ve psikiyatrik hastalıklarda egzersiz. *Türk Tıp Öğrencileri Araştırma Dergisi*, 3(1), 26-31.
- Aykora, E. (2019). An Analysis over Physical and Physiological Parameters of Elementary School Children Taking Part in a Sport Climbing Exercise. *Universal Journal of Educational Research*, 7(2), 624-628.
- Babic, M. J., Morgan, P. J., Plotnikoff, R. C., Lonsdale, C., White, R. L., & Lubans, D. R. (2014). Physical activity and physical self-concept in youth: systematic review and meta-analysis. *Sports medicine*, 44(11), 1589-1601.
- Bakir, N., Danis, G. (2020). Üniversitedeki kız öğrencilerin özgüven düzeyleri ve etkileyen faktörler. *Sosyal Bilimler Araştırma Dergisi*, 9(3), 133-140.
- Bay, Ü. S., Yılmaz, E. (2020). Ruhsal bozukluklarda fiziksel aktivite ve egzersizin etkileri ile ilgili yapılmış çalışmaların incelenmesi. *Akdeniz Spor Bilimleri Dergisi*, 3(2), 437-447 . DOI: 10.38021/asbid.849274
- Bilgin, O. (2011). The Investigation of Self Confidence Levels of Adolescents According To Different Variables. Department of Education, Institute of Educational Sciences, Sakarya University, Sakarya, (Published Master's Thesis).
- Bilici, M.F. (2018), Investigation of Some Hormone and Biochemical Parameters in Blood Samples of Adolescent Female Athletes (PhD Thesis, Atatürk University Health Sciences Institute
- Can, Y., Kacay, Z. (2016). Investigation of the relationship between athlete identity perception, courage and self-confidence. *Journal of Human Sciences*, 13(3), 6176-6184. doi:10.14687/jhs.v13i3.4353
- Caspersen, C., Powell, K. et al. (1985). Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public Health Reports*, 100: 126-131.
- Coknaz, H., Yıldız, M., Erbil, E., Altıntaş, H. (2018). Lise öğrencilerinin öz güven düzeylerinin karşılaştırılması. *İstanbul Üniversitesi Spor Bilimleri Dergisi*, 8(1), 37-48.
- Dąbrowska-Galas, M., Ptaszowski, K., Dąbrowska, J. (2021). Physical activity level, insomnia and related impact in medical students in Poland. *International Journal of Environmental Research and Public Health*, 18(6), 3081.
- Demir, R., Taspınar, A., Odabas, R. K. (2021). Emziren annelerde diyet yapma eğilimi. *Bandırma Onyedil Eylül Üniversitesi Sağlık Bilimleri ve Araştırmaları Dergisi*, 3(3), 222-228.
- Dogru, Z. (2017). Beden eğitimi ve spor eğitimi bölümü öğrencilerinin özgüven ve özyeterlik algıları arasındaki ilişkinin değerlendirilmesi. *Beden Eğitimi ve Spor Araştırmaları Dergisi*, 9(1), 13-23.
- Doymaz, F. (2013). Examination of the impact of exercise beliefs on exercise behavioural changes in healthy women, Health Sciences Institute, Ph.D. Thesis in Physical Therapy and Rehabilitation, Ankara.
- Durgun, A. G. (2012). Obesity prevalence and related factors in Bursa. Doctoral dissertation, Bursa Uludağ University, Turkey.
- Dünya Tütünsüz Günü, 31 Mayıs 2021, Türkiye Halk Sağlığı ve Kronik Hastalıklar Enstitüsü (TÜSEB-TÜHKE).

- Edwards, S.D., Ngcobo, H.S., Edwards, D.J. Palavar K. (2005). Exploring the relationship between physical activity, psychological well-being and physical self-perception in different exercise groups. *South African Journal for Research in Sport, Physical Education and Recreation*. 27(1), 59-74.
- Ekinci, N. E., Ozdilek, Ç., Deryahanoğlu, G., Üstün, Ü. D. (2014). Spor yapan lise öğrencilerinin öz güven düzeylerinin incelenmesi. *Sportif Bakış: Spor ve Eğitim Bilimleri Dergisi*, 1(1), 36-42.
- Esentas, M., Özbey, S., Güzel, P. (2017). Self-Awareness and Leadership Skills of Female Students in Outdoor Camp. *Journal of Education and Training Studies*, 5(10), 197-206.
- Ferreres, M. L. (2011). Sarıl Bana Anne: Çocukluk ve İlk Gençlik Çağında Öz güvenin Gelişimi, (D. D. Köseoğlu Çev.). İstanbul: Doğan Egmont Yayıncılık.
- Flegal, K.M., Kit, B.K., Orpana, H., Graubard, B.I. (2013). Association of all-cause mortality with overweight and obesity using standard body mass index categories: a systematic review and meta-analysis. *Jama*; 309(1):71-82.
- Fox, K.R. (2000). Self-esteem, self-perceptions and exercise, *International Journal of Sport Psychology*, 31(2), 228-240.
- Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü. 2018 Türkiye Nüfus ve Sağlık Araştırması (TNSA). T.C. Sağlık Bakanlığı, Yayın No: NEEHÜ. 19.01.2018. Available from: http://www.hips.hacettepe.edu.tr/tnsa2018/rapor/TNSA_2018_ana_rapor.pdf Erişim Tarihi: 23.03.2022.
- Halim, R., Dahı, Z., Halim, N. M. (2021). Tip 2 diyabette devamlı egzersiz ve safran kullanımının insülin direnci ve glikozun hücre içine alınma etkisi. 5 th International Students Science Congress, İzmir.
- Kaya, N., Taştan, N. (2020). Öz güven üzerine bir derleme. *Kırıkkale Üniversitesi Sosyal Bilimler Dergisi*, 10(2), 297-312.
- Kelsey, R. (2014). Biraz Daha Öz güven Alır Mıydınız? (F. C. Erdemli Çev.) Ankara: Kahve Yayınları.
- Kızılay, F. (2012). The Investigation Of Effect Of Aerobic Exercise On Sedentary Women's Body Composition, Basal Metabolic Rate, Total Oxidant And Antioxidant Capacity (Master's thesis, İnönü University Institute of Health Sciences, Malatya).
- King, A.J.C., Boyce, W.F., King M.A (1999). Trends in the Health of Canadian Youth. *Journal of Counselling and Development*, 78(1): 151-159.
- Kocak, D.Y., Hotun-Sahin, N., Büyükkayacı-Duman, N. (2015). Alkol ve sigara bağımlılığı, kadın sağlığına etkileri ve hemşirelik girişimleri. *Literatür Sempozyum Psikiyatri/Nöroloji/Davranış Bilimleri Dergisi*, 1(5), 43-47.
- Koruc, Z., Bayar, P. (2004). Egzersizin depresyon tedavisindeki yeri ve etkileri. *Spor Bilimleri Dergisi*. 15 (1), 49-64.
- Lirgg, C. D. (1992). Girls and women, sport, and self-confidence. *Quest*, 44(2), 158-178.
- Liu, M., Wu, L., & Ming, Q. (2015). How does physical activity intervention improve self-esteem and self-concept in children and adolescents? Evidence from a meta-analysis. *PloS one*, 10(8), e0134804.
- Marquez, D.X., McAuley, E. (2001). Physique anxiety and self-efficacy influences on perceptions of physical evaluation. *Social Behavior and Personality: An International Journal*. 29(7), 649-659.
- McAuley, E., Blissmer, B., Katula, J., Duncan, T. E., Mihalko, S. L. (2000). Physical activity, self-esteem, and self-efficacy relationships in older adults: a randomized controlled trial. *Annals of Behavioral Medicine*, 22(2), 131-139
- McKay, M., Fanning, P. (2014). Öz güven. (8. Baskı). Ankara: Arkadaş Yayınevi.
- Merdinoglu, A. (2017). Investigation of body image and self-confidence values in adult female and male individuals due to aerobic exercise (Master's thesis), Institute of Health Sciences, Mugla.
- Mirzaianjabadı, K., Anderson, D., & Barnes, M. (2006). The relationship between exercise, body mass index and menopausal symptoms in midlife Australian women. *International journal of nursing practice*, 12(1), 28-34.
- Musa M. (2020). Fitness merkezlerinde spor yapan bireylerin sosyal görünüş kaygısı ve öz güven düzeylerinin bazı değişkenlere göre incelenmesi. *Beden Eğitimi ve Spor Bilimleri Dergisi*. 14(3), 503-518.
- Ozbek, S., Yoncalık, M. T., Alıncak, F. (2017). Sporcu ve sedanter lise öğrencilerinin öz güven düzeylerinin karşılaştırılması (Kırşehir İli Örneği). *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, 2(3), 46-56.
- Sari, E. (2016). Kadınlarda Öz güven. Antalya: Net Medya Yayıncılık.
- Saygın, O., Goral, K., Gelen, E. (2009). Amatör ve profesyonel futbolcuların beslenme alışkanlıklarının incelenmesi. *Uluslararası İnsan Bilimleri Dergisi*, 6(2), 177-196.
- Shojaa, M., Von Stengel, S., Kohl, M., Schoene, D., & Kemmler, W. (2020). Effects of dynamic resistance exercise on bone mineral density in postmenopausal women: a systematic review and meta-analysis with special emphasis on exercise parameters. *Osteoporosis International*, 31(8), 1427-1444.
- Soner, O. (2000). Aile uyumu, öğrenci öz güveni ve akademik başarı arasındaki ilişkiler. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, 12, 249-260.

- TDK, <https://sozluk.gov.tr/>, Erişim tarihi: 23.03.2022
- Terlemez, M. (2019). Spor aktivitesinin özgüven, serotonin ve dopamine etkisi. *International Journal of Social Science*, 2(2), 1-6.
- Tokunaga, K., Matsuzawa, Y., Kotani, K. et al. (1991). Ideal body weight estimated from the body mass index with the lowest morbidity. *International Journal of Obesity*;15(1):1-5.
- Tunay, V. B., Tedavi, F. (2008). Yetişkinlerde fiziksel aktivite. Sağlık Bakanlığı Yayını, 16s., Ankara.
- Turan-Basoglu, S. (2007). The relationship between the pre-exam anxiety and the self-confidence and to search the effects of those concepts on the neolagnium (Unpublished Master Thesis). Maltepe University, Institute of Social Sciences, Istanbul.
- Türkiye İstatistik Kurumu. <https://data.tuik.gov.tr/> Erişim Tarihi: 23.03.2022
- WHO Obesity and Overweight [Internet]. <https://www.who.int/news-room/factsheets/detail/obesity-and-overweight>. (Erişim Tarihi: 18.04.2022).
- Yalcin, I., Ayhan, C. (2020). Sportif rekreasyonel etkinliklere katılan kadınlarda fiziksel görünüş mükemmeliyetçiliği ve psikolojik iyi oluşun öz güven üzerine etkisi. *Sportmetre Beden Eğitimi ve Spor Bilimleri Dergisi*.
- Yurtcicek Erguntop, S. (2019). Development of the Female Self-Confidence Scale. T.C. Istanbul University-Cerrahpasa Graduate Education Institute, Ph.D. Thesis, Istanbul.
- Yurtseven, F. (2011). Kendine Güven. A. Zara (Ed.) Yaşadıkça: Ruhsal sorunlar ve başa çıkma yolları (s. 55-73). Istanbul: İmge Yayınevi.