

# ANALYSIS OF BODY PERCEPTION AND SELF-ESTEEM VALUES CONNECTED WITH AEROBIC EXERCISE IN FEMALE AND MALE ADULTS

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## ABSTRACT

In the study, it is aimed to analyze body perception and self-esteem values connected with aerobic exercise in female and male adults. In the study, 222 individuals in total who regularly exercises at least once in a week and sedentary individuals due to workload or any other reasons voluntarily participated. The participants have been informed before the study and questionnaires have been applied after getting permission from required institutions. Questionnaire technique has been used in the study as a data collection tool. "Rosenberg Self-Esteem Scale" has been used for measuring the self-esteem, and "Body Perception Scale" has been used for measuring body perception of the participants. The obtained data has been recorded with IBM SPSS 22 packaged program. By defining frequency (f), and percentage (%) values, inventory total scores which give personal information about participants have been given. The data shows parametric distribution. As statistical process, Pearson Correlation Analysis has been examined in the level of 0.01. Anova analysis has been evaluated in the level of 0.05 in intergroup relations.

There is a significant correlation between individuals who exercise and sedentary ones in terms of body perception and self-esteem levels  $p < 0.05$ . Besides, it is seen that body perception and self-esteem levels are higher in females. In body perception and self-esteem's relationship with the level of income; it is seen that as the level of income increases, body perception and self-esteem levels of the individual show upswing. As a result, there is a significant relationship between individuals who exercise and who do not exercise in terms of their body perception and self-esteem levels.

Anahtar Kelimeler: Beden algısı, benlik saygısı, egzersiz, sedanter

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## AEROBİK EGZERSİZE BAĞLI YETİŞKİN KADIN VE ERKEK BİREYLERDE BEDEN ALGISI VE BENLİK SAYGISI DEĞERLERİNİN ARAŞTIRILMASI

### ÖZ

Çalışmada, aerobik egzersize bağlı yetişkin kadın ve erkek bireylerde beden algısı ve benlik saygısı değerlerinin araştırılması amaçlanmıştır. Çalışmaya haftada en az 1 gün düzenli egzersiz yapan bireyler ve iş yoğunluğu nedeniyle veya herhangi bir nedenle egzersiz yapamayan toplamda 222 kişi gönüllü olarak katılmıştır. Çalışma öncesi bireylere konu hakkında bilgilendirme yapılmıştır ve gerekli kurumlardan izin alınarak anketler uygulanmıştır. Araştırmada veri toplama aracı olarak anket tekniği kullanılmıştır. Bireylerin benlik saygılarını ölçmek amacıyla "Rosenberg Benlik Saygısı Ölçeği" (Çuhadaroğlu, 1985), Beden algılarını ölçmek amacıyla ise "Beden Algısı Ölçeği" kullanılmıştır (Haydaroğlu, 1989). Elde edilen veriler IBM Spss 22 adlı paket program ile kayıt edilmiştir. Katılımcılara ilişkin kişisel bilgiler veren envanter toplam puanları, frekans (f) ve yüzde (%) değerleri tespit edilerek verilmiştir. Veriler parametrik dağılım göstermektedir. İstatistiki işlem olarak Pearson Kolerasyon analizi 0.01 anlamlılık düzeyiyle incelenmiştir. Gruplar arası ilişkiye ise Anova analizi 0.05 anlamlılık düzeyinde değerlendirilir.

Sonuç olarak, egzersiz yapan bireylerin egzersiz yapmayan bireylere göre beden algısı ve benlik saygısı düzeyleri arasında anlamlı bir ilişki vardır. Ayrıca beden algısı ve benlik saygı düzeyleri kadınlarda daha fazla olduğu görülmektedir. Beden algısı ve benlik saygısının gelir düzeyi ile ilişkisinde, gelir düzeyi arttıkça bireyin beden algısı ve benlik saygısının da iyileşme olduğu görülmektedir.

**Key Words:** Body Perception, Self-Esteem, Exercise, Sedentary.

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## INTRODUCTION AND OBJECTIVE:

Individuals use a variety of ways to preserve the form of their bodies, to provide a muscular and better appearance of physical structures. It is known that sportive activities positively affect body perception. Physical activity and exercise enable people to have an ideal body structure by shaping their bodies in a certain way. Physical appearance is now one of the subjects of all ages, especially the young. The physical appearance of an individual often takes precedence their behavior and success. The slim appearance of the ladies and the muscular appearance of the men are among the social values accepted in society. Ideally, a physically fit body is proportional and healthy at the same time.<sup>1</sup> Positive development in the body perception will also lead to an increase in individual's self-confidence as it will lead to positive interactions and recycling in one's social life.<sup>2</sup>

The individual who exercises thinks he has a healthy body form and becomes

peaceful; here is the conscientious peace. The individuals need to have approaches like "I care my body" and "I try to protect my health."

Nowadays, many individuals are fighting obesity. An individual may need to live a life full of exercise with respect for her prestige, status in social life, status and most importantly for a lifelong healthy lifetime. Individuals with a physically fit image are expected to have high self-confidence perceptions. Self-confidence is the belief that an individual can achieve an expected or desired behavior.<sup>3</sup> It is known that self-confidence levels play an important role in the critical decisions that individuals have given or would make in their lives.<sup>4</sup>

In this context, it is important to examine the values of body perception and self-confidence based on an aerobic exercise of adult female and male subjects. In the study, it is aimed to analyze body perception and self-esteem values connected with aerobic exercise in female and male adults.

## MATERIAL AND METHOD

**Participants:** In this study, body perception and self-esteem values connected with aerobic exercise in female and male adults are expected to be defined. The study is formed with the participants who exercise regularly and sedentary living in İstanbul Kadıköy, Moda and Ataşehir are determined to be in the age range of %34,4 18-22 age, %42,5' 23-27, %24,1 27 and over. In the study, 106 males and 116 females, 222 in total, individuals in total who regularly exercises at least once in a week and sedentary individuals due to workload

or any other reasons voluntarily participated. Questionnaires were distributed by the researcher himself. The participants have been informed before the study and questionnaires have been applied after getting permission from required institutions. The questionnaires have been applied in the direction of permissions received.

**Data Collection Methods:** In the study as a data collection tool questionnaire technique has been used, the data has been obtained by using Rosenberg self-esteem scale and Body perception scales, respectively. Electronic databases for academic purposes and university libraries have been utilized within the

scope of the field search related to research.

**Rosenberg Self-Esteem Scale:** It is scale consisting 12 subscales with 63-item multiple-choice, in the literature, one of the four essential main scales used for self-esteem measurement in most studies today. The first 6 subscales of the Rosenberg Self-Esteem Scale were prepared to measure self-esteem and the other subscales were prepared to measure relationships with self-esteem. The scale's validity coefficient was found as 71, the reliability coefficient as 75. In this study, "Self-Esteem Sub Scale" which is the first subtest and consists 10 items.

**Body Perception Scale:** A 9 questions "Body Image Scale" was used in determination of body image. Body Image Scale (BIS) was developed by Secord and Jourand in 1953, validity and reliability studies were conducted by Hovardaoğlu in 1989, and it was adapted into Turkish community. Hovardaoğlu found Cronbach alpha internal consistency coefficient as 0.91 ( $p < 0.01$ ) and BPS alpha value as 0.76<sup>6</sup>. The scale contains 40 items, each

of which is related to an organ or part of the body (such as arm, leg, face) or a function (such as level of sexual activity). In our study, the cut-off score was 135 and those with a score below 135 were defined as low BI. It is recommended that the scale especially should be used in studies involving depression. It was used synonymously with BI Satisfaction in the study.

**Data Analysis:** The obtained data was recorded with IBM SPSS 22 packaged program. By defining frequency (f), and percentage (%) values, inventory total scores which give personal information about participants have been given. Status of parametric and non-parametric distribution of points have been analyzed by analyzing parametric and non-parametric distribution curves, skewness-kurtosis values, parametric and non-parametric distribution curves through histograms. The data shows parametric distribution. As the statistical process, Pearson Correlation Analysis has been examined in the level of 0.01. Anova analysis has been evaluated in the level of 0.05 in intergroup relations.

## FINDINGS:

In this section, the participants' body perception and self-esteem variables' differences have been analyzed according to exercising status, gender, and their ages; and the results have been given in tables.

**Table 1.** Anova Test Results of Sample Group's self-esteem and body perception levels according to Age Variable;

Scales	Age	n	Mean $\pm$ Std.	f	p
Self-Esteem	18-22	72	1.33 $\pm$ 1.12	.059	.166
	23-27	85	1.72 $\pm$ 1.01		
	27 and over	65	1.39 $\pm$ 1.20		
Body Perception	18-22	72	2.12 $\pm$ 1.10	1.19	.085
	23-27	85	2.32 $\pm$ 1.11		
	27 and over	65	2.41 $\pm$ 1.36		

When Table 1 was examined, in Anova test analysis, it was determined that the difference between the groups according to the mean of self-esteem and body-perception scores was not statistically significant ( $p > 0.05$ ).

**Table 2.** Anova Test Results of Sample Group's Self-Esteem and Body Perception levels according to Exercising Status;

Scales	Exercising Status	n	Mean ±Std.	t test	p
Self-Esteem	Yes	120	1.03±1.14	-3.129	.000*
	No	102	2.72±1.23		
Body Perception	Yes	120	1.12±1.25	6.576	.000*
	No	102	3.32±1.37		

\*P&lt;0.05

When Table 2 was examined, in T-test analysis according to exercising status variable, it was determined that the difference between the groups according to the mean of self-esteem and body-perception scores was statistically significant (P<0.05). In the analysis on overall of 222 participants, it is seen that exercising individuals have higher self-esteem and body perception levels.

**Table 3.** Anova Test Results of Sample Group's Self-Esteem and Body Perception according to level of income;

Scales	Age	n	Mean ±Std.	f	p
Self-Esteem	Low	33	2.08±1.03	22.35	.000*
	Middle	77	2.14±.89		
	Good	93	3.21±1.24		
	Very Good	19	1.87±.19		
Body Perception	Low	33	2.41±1.28	19.14	.000*
	Middle	77	2.18±1.21		
	Good	93	3.75±1.11		
	Very Good	19	2.32±.79		

\*P&lt;0.05

When Table 3 was examined, in the analysis conducted according to the level of income variable, it was determined that the difference between the groups according to the mean of self-esteem and body-perception scores was statistically significant (P<0.05). According to these results, it is seen that level of income has an effect on self-esteem and body perception. It is stated that as the level of income increases, its effect on self-esteem and body perception increases.

**Table 4.** Correlation Table Between Gender Variable and Body Perception

Variable	Gender	Body Perception
Gender	Correlation	1
	p	.006
	n	.324*
Body Perception	Correlation	1
	p	.006
	n	.324*

\*P&lt;0.05

When Table 4 is analyzed, it is found that there is a significant correlation between participants' body perceptions according to gender variable. According to findings, women's body perception levels are higher than men.

**Table 5.** Correlation Table Between Gender Variable and Self-Esteem

Variable		Gender	Self-Esteem
Gender	Correlation	1	.062
	p	-	.445*
	n	222	222
Self-Esteem	Correlation	.062	1
	p	.445*	-
	n	222	222

\*P&lt;0.05

When Table 5 is analyzed, it is found that there are significant differences between self-esteem levels according to participants' gender variable. According to findings, females' self-esteem levels are higher than men.

**Table 6.** Self-Esteem and Body Perception Correlation

Scales	Self-Esteem	Body Perception
Self-Esteem	-	.342**
Body Perception	.342**	-

p&lt;0.01\*\*

When Table is analyzed, it is found that there is a positive meaningful high-level correlation between body images and self-esteem ( $r=0,365$ ,  $p<.01$ ). Accordingly, as the body image scores increase, Self-Esteem scores also increase. As a result, this relationship is a positive one, and this relationship shows that as the satisfaction of the individual's body image increases, the self-esteem also increases.

## DISCUSSION AND RESULTS

According to these results, it is seen that level of income has an effect on self-esteem and body perception. It is stated that as the level of income increases, its effect on self-esteem and body perception increases. There is a significant correlation between body perceptions and self-esteem according to the genders of the individuals participating in the study. There is a positive significant correlation between body images and self-esteem values ( $r=0,365$ ,  $p<.01$ ). Accordingly, as the body image scores increase, self-esteem scores also increase. As a result, this relationship is a positive one, and this relationship shows that as the satisfaction of the individual's body image increases, the self-esteem also increases. According

to findings, it is seen that women's body perception levels are higher than men's.

Pesa and his colleagues have shown the body image as an important factor affecting self-esteem.<sup>6</sup> Allgood-Merten and his colleagues showed a very strong connection between dissatisfaction with body image and self-esteem, and they concluded that body image is not a separate structure but an important part of self-esteem.<sup>7</sup> In a study of body image, depressive symptoms and self-esteem by Rierdan and colleagues, they pointed out that a lot of misinformation led to the misunderstanding of the bodies of both male and female adolescents who had serious somatic dissatisfaction.<sup>8</sup> In another study, they emphasized that general self-esteem is related to the level

of body image satisfaction.<sup>9</sup> On the other hand, there are also studies that point out that there are gender differences in being satisfied with the body image in the individuals.<sup>10</sup> According to Harter's studies, women's self-esteem is higher than men's.<sup>11</sup> He stated that individuals' depression levels are related to negative body image.<sup>12</sup> In a study on female dancers, it was reported that the sub-values of self-esteem of the individuals were very high.<sup>12</sup> In the study of the effects of step-aerobics and pilates exercise on structural bio-motor and psychological characteristics in sedentary women made by Öztürk (2014), a significant difference was found in terms of body perception<sup>13</sup>.

When those who exercise and sedentary are evaluated within the scope of the research, the scores obtained from individuals in the subscale of self-esteem as a result of the self-esteem scale were found to be higher in the individual sports than the other individuals. Researches supporting this situation is available in the literature. Findings in some studies indicate that individuals who exercise have higher self-esteem than sedentary people.<sup>14</sup>

Women who regularly exercise were reported to have lower total body perception scores.<sup>15</sup> These findings do not show parallelism with our study. In our study, it is seen that regularly exercising women's body perception and self-esteem levels are higher. It is seen that regularly exercising develops body perception and besides self-esteem levels also increase.<sup>16</sup> Also, it is stated that regularly exercising women's body perceptions also show development in a positive way.<sup>17</sup> In our study, it is seen that the individuals exercising regularly have a higher level of

body image and self-esteem than sedentary individuals. This result show parallelism with the literature. When body perception and self-esteem are considered as related to how an individual sees and feels himself; many diseases such as bulimia and anorexia, many unhealthy attitude, dissatisfaction from self-body image, low self-esteem levels can be seen in women as a result of dissatisfaction from aspects related to especially body weight.<sup>18</sup> However, women's body perception and self-esteem levels are found higher than men's. These results do not show parallelism with the literature. It is stated that sedentary individuals', who are overweight, body perception and self-esteem levels are in low level.<sup>19</sup> In our study, it is seen that there is a significant correlation between individuals who do not exercise regularly and those who exercise regularly in terms of body perception and self-esteem levels. This finding support the literature.

Consequently, there is a significant relationship between individuals who exercise and who do not exercise in terms of their body perception and self-esteem levels. As exercising individuals' body perception increases, self-esteem levels also increase. The more the individual embraces himself, the greater his self-esteem and self-confidence will be. Additionally, it is seen that body perception and self-esteem levels are higher in women. In body perception and self-esteem's relationship with the level of income; as the level of income increases, the individual's body perception and self-esteem levels show improvement. The fit view gained from sports training taken with coaching is thought to be the reason for this. It is seen that body perception and self-esteem has no correlation with age.

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