# A Research about the Perception Levels of Their Bodies of Female Athletes and Gender Roles

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Abstract: This research has been carried out in order to determine the gender roles and the perception levels of their bodies of elite female athletes doing individual and team sports and females who don't do sports and to ascertain the relationship between them. The working group consists of 360 females, 180 of whom are female elite athletes and 180 of whom are non-athlete females. In the research, "Multidimensional Body-Self Relations Questionnaire" was used to determine the perception levels of female athletes; "BEM Gender Roles Inventory" was used to determine the gender roles; and "Personal Information Form" was used to determine the characteristics of the students which is improved by the researcher as data collection means. To conclude; a meaningful relationship between the body perception and gender roles has been determined. It has been found that females doing sports care about health, appearance, physical competence and are more pleased of their bodies' parts than non-athletic females. When the gender role of females participated in the research is examined, athletic females have been found to have more masculine features. It is thought that sports affects body perception level and gender role in individuals.

**Key words:** Body perception • Gender role • Females • Sport • Sedentary

## INTRODUCTION

Body image is a complex phenomenon that includes physiological, psychological and sociological components. Research has indicated that the degree of satisfaction with one's body image is related to one's selfesteem [1, 2]. Gender is one important structural characteristic influencing the social networks of older persons. Women tend to have larger and more diverse networks and more frequent contacts with network members than men do [3]. Women are also more likely to organize their families' social relationships [4]. Gender role identity is the degree to which individuals perceive themselves to be masculine and feminine [5]. It is proposed and supported in the literature that individuals engaged in sports tend to have higher masculinity [6, 7]. Many studies have shown that females who were physically active were both high in masculinity and femininity. Sex typing is having the suitable behaviors according to the male and female gender roles at different ages during development. Gender is related to the social standards constituting masculinity and femininity notions

of society, attitudes and interests and dressing styles [8]. Women can sometimes have two different social gender roles. Generally, to be successful at working needs masculine and androgynous (being flexible as to show feminine and masculine behaviors according to the environment) behaviors. They also have identities that they find suitable traditionally in social situation. On the contrary, this is not a problem for men, because society expects men to show more masculine behaviors in every situation [9].

Research on body image has presented relatively consistent findings on age and gender differences [10, 11]. Another explanation for the findings which have been concluded from the differences between athletes and non-athletes' body image ratings [12] is that the individuals who are concerned about their body image or have negative body image may have already discontinued participating in that sport. Many studies have shown that females who were physically active were both high in masculinity and femininity. The interrelationships between body image, body satisfaction, gender role and self-esteem have been studied and to this point, research,

although short of a cause and effect relationship, show that these variables can directly influence one another. This work with body image and gender role identity has provided valuable insight into these interactions. There is a relationship between both gender and body image. Thus, it can be inferred there is a relationship between body image and gender role identity [13]. Although the importance of gender role attitudes in family dynamics has been of interest to researchers for several decades [14], the gender role attitudes of family members-mothers, fathers, sisters and brothers-are typically studied in adults and children separately, or within single (i.e., marital or parent-child) dyads. This approach is likely to limit our understanding of the way in which family members' gender characteristics are connected. As proposed within a family systems perspective, families are composed of subsystems that are interrelated and, as such, understanding of one subsystem in the family is incomplete if the processes that operate in other subsystems are not considered [15]. Sports activities were classified according to their convenience to social gender. Sports that are acknowledged as more masculine are team sports, boxing, weight lifting and the ones that are acknowledged as more feminine are gymnastics, ballet and dance [16].

In this context, body perception levels and gender roles of females between the age of 18 and 26 have been examined according to the factor of doing sports in order to contribute to the previous works and give education in the topics where a problem has been determined.

# MATERIALS AND METHODS

180 elite female athletes constitute the precedent of the research, during 2006-2007 seasons with 180 female university students who do not have do sports and are chosen at random selection from Gazi Universities and Selcuk Universities. The working group consists of 360 males, 180 of whom are female elite athletes in Volleyball, Basketball, Football, Wrestling, Boxing and Weight lifting branches and 180 of whom are non-athlete females. This research is done with the aim of determining the gender roles and perception levels of their bodies of female athletes who are involved in sports with the ones, who are not; exploring the effects the state of doing sports to the body perception-gender roles and determining the relationship between them. In the research, Personal Information Form was used to determine the

characteristics of the athletes which was improved by the researcher, Multidimensional Body-Self Relations Questionnaire which was improved by Winstead and Cash [17] was used to determine the perception levels of males; BEM Gender Roles Inventory [18] was used to determine the gender roles of athletes and non-athletes as data collection means.

Multidimensional Body Self Relations Questionnaire (MBSRQ): Multidimensional Body Self Relations Questionnaire (MBSRQ), developed by Winstead and Cash [17] in order to evaluate attitudinal sides of body image, contains 7 sub-dimensions. These are: 1. Appearance Evaluation 2. Appearance Orientation 3. Fitness Evaluation 4. Fitness Orientation 5. Health Evaluation 6. Health Orientation 7. Body Areas Satisfaction. The MBSRQ, is a standardized measure of body image attitudes, using a five point scale from "definitely disagree" to "definitely agree" [19, 20]. The appearance orientation subscale is a 12 item measure of the extent of cognitive behavioral investment in one's appearance, including, for instance, efforts spent on "grooming behaviors"-for example, "I check my appearance in the mirror whenever I can''. In this study, internal consistencies (Cronbach's a) of these two subscales were 0.77 and 0.83. Finally, the nine item body areas satisfaction assesses satisfaction with discrete body areas or attributes.

BEM Gender Roles Inventory: BEM Gender Roles Inventory has been improved with the aim of determining the individuals with the aim of determining gender role group features that individuals have [18, 5]. BEM Gender Roles Inventory consists of three sub-dimensions. 1-Feminity 2- Masculinity 3- Social Desirable. BEM Gender Roles Inventory consists of 60 questions with likert type 7 graded evaluation scale. Bem Gender Role Inventory; The Bem Gender Role Inventory (BSRI) provides independent assessments of masculinity and femininity in terms of the respondent's self-reported possession of socially desirable, stereotypically masculine and feminine personality characteristics. The Bem Gender Role Inventory is designed to provide an assessment of degrees of masculinity, femininity and androgyny according to Sandra Bem's gender schema theory. Her theory states that people have a generalized tendency to understand and process behaviors based on sex-linked associations that constitute the gender schema. Bem contends that gender typing is a product of society's

insistence on the functionality of the gender dichotomy and gender-related behaviors [18, 5]. The BSRI consists of a list of 60 personality characteristics and is selfadministered. Participants are asked to rate themselves on a scale of 1 to 7 how much of a given personality characteristic they believe to possess. Of these, 20 were selected with the mean social desirability ratings for males and females nearly equal. Socially desirable masculine traits included items such as "independent", "assertive" and "analytical". Feminine traits included "compassionate" "understanding", "loyal". and Furthermore, 20 additional traits were chosen that were no more socially desirable for males or females, 10 of which were positively valued (such as "conscientious" and "adaptable") and 10 of which were negatively valued (such as "moody" and "jealous") [21].

All statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS for Windows; SPSS, Inc., Chicago, IL). Standard statistical methods were used for the calculation of frequency and percent. The Kolmogorov-Smirnov test was used to determine if dependent variables were normally distributed. ANOVA test was used to determine if there was homogeneity of variance. Mann-Whitney U and unpaired t-tests were used to determine significant differences for each dependent variable. For all analyses, the criterion for significance was set at an alpha level of  $p < 0.05. \ \ \,$ 

### RESULTS AND DISCUSSION

In this study carried out to examine body perception and gender role for female athletes, as seen in Table 1, it has been found that smoking rate is % 35, vitamin rate is % 40 for females playing sports and females playing no sports. When the demographic information of the subjects was examined according to the age variable, it has been found that 17-20 year -old individuals consisted % 65 of the participants in the research. The rate of athletes and non-athlete females having a boyfriend is %35.6. The rate of athletes and non athletes females having a companion time for 1- 2 year is %20.6.

As seen in Table 2, a significant difference has been found between doing sports variable and body perception levels of females participated in the research (p<0.05). No significant difference is seen between Appearance Evaluation, Physical competence (fitness) evaluation and health Orientation which are sub-dimensions of body perception (p>0.05).

A significant difference has been found between females doing both individual  $(36.58\pm5.82)$  (n: 90) and team sports  $(36.74\pm4.98)$  (n: 90) and non-athletic females  $(39.28\pm6.61)$  (n: 180) in Appearance orientation (p<0.05). The property of Appearance orientation which is a subdimension of body perception had higher average value for women not doing sports than women doing sports. A significant difference has been found between females

Table 1: Demographic features of college female sample

	Variables	F	%
Age	17-20 age	234	65.0
	21-23 age	109	30.3
	24-26 age	17	4.7
Experience (year)	One playing sports for 5 years and below	101	28.1
	6-10 years	60	16.7
	11 years and over	19	5.3
Matter use	Smoke	35	9.7
	Alcohol	5	1.4
	stimulants	7	1.9
	Vitamin	40	11.1
	None	273	75.8
Health Problem	No	337	93.6
	Yes	23	6.4
Having a boyfriend	No	232	64.4
	Yes	128	35.6
Companion time	1year and below	39	10.8
	1-2 years	74	20.6
	2 years and over	29	8.1

Table 2: Examining the relation between doing sports variable and body perception levels of subjects participated in research

Measures	Variables	N	$\bar{\varkappa}$	S	$\operatorname{sd}$	F	P	Significant difference
Appearance Evaluation	Indiv. Sports	90	21.90	3.89	2,357	0.69	0.50	-
	Team Sports	90	21.57	3.30				
	Sedentary	180	22.16	4.17				
Appearance Orientation	Indiv. Sports	90	36.58	5.82	2,357	8.45	0.00	1-3
								2-3
	Team Sports	90	36.74	4.98				
	Sedentary	180	39.28	6.61				
Fitness Evaluation	Indiv. Sports	90	22.63	3.82	2,357	0.99	0.37	=
	Team Sports	90	22.48	3.37				
	Sedentary	180	21.94	4.78				
Fitness Orientation	Indiv.sports	90	34.55	5.27	2,356	92.58	0.00	1-3
								2-3
	Team Sports	90	34.14	4.25				
	Sedentary	180	27.07	5.34				
Health Evaluation	Indiv. Sports	90	21.19	2.90	2,357	5.21	0.00	2-3
	Team Sports	90	21.74	3.34				
	Sedentary	180	20.40	3.54				
Health Orientation	Indiv. Sports	90	39.74	5.82	2,357	0.14	0.87	=
	Seam Sports	90	39.59	5.91				
	Sedentary	180	39.32	7.00				
Body Areas Satisfaction	Indiv. Sports	90	35.53	8.14	2,357	3.19	0.04	1-2
	Team Sports	90	33.10	6.25				
	Sedentary	180	34.09	5.70				
Total score	Indiv. Sports	90	212.18	24.53	2,356	3.59	0.03	1-3
	Team Sports	90	209.37	20.40				
	Sedentary	180	204.25	25.48				

<sup>\*</sup> p<.05

Table 3: Examining the relation between doing sports variable and gender roles of females participated in the research

Measures	Variables	N	$\bar{\varkappa}$	S	$\operatorname{sd}$	F	P	Significant difference
Feminity	Indiv. Sports	90	110.96	15.43	2,357	0.55	0.58	-
	Team sports	90	109.51	14.78				
	Sedentary	180	111.58	15.56				
Masculinity	Indiv. Sports	90	104.46	13.82	2,357	6.06	0.00*	2-3
	Team Sports	90	105.73	12.98				
	Sedentary	180	99.94	15.04				
Social desirable	Indiv. Sports	90	94.48	12.30	2, 357	0.45	0.64	-
	Team Sports	90	91.99	10.71				
	Sedentary	180	92.89	10.76				

<sup>\*</sup> p<0.05

doing both individual  $(34.55\pm5.27)$  (n: 90) and team sports  $(34.14\pm4.25)$  (n: 90) and non-athletic females  $(27.07\pm5.34)$  (n: 180) in fitness orientation sub-dimensions (p<0.05). The property of Fitness orientation which is a sub-dimension of body perception had lower average value for women not doing sports than women doing sports. A significant difference has been found between females doing both individual  $(21.19\pm2.90)$  (n: 90) and team sports  $(21.74\pm3.34)$  (n: 90) and non-athletic females  $(20.40\pm3.54)$  (n: 180) in Health Evaluation sub-dimensions (p<0.05). The property of Health Evaluation which is a sub-dimension of body perception had lower average value for women not doing sports than women doing sports.

For Body Areas Satisfaction, a significant difference has been found between females doing individual sports  $(35.53\pm8.14)$  (n: 90) and ones doing team sports  $(33.10\pm6.25)$  (n: 90) (p<0.05). A significant difference has been found between females doing both individual  $(212.18\pm24.53)$  (n: 90) and team sports  $(209.37\pm20.40)$  (n: 90) and non-athletic females  $(204.25\pm25.48)$  (n: 180) in Body perception total score sub-dimensions (p<0.05). Body perception had lower average value for women not doing sports than women doing sports.

As seen in Table 3; when gender roles of the subjects participated in research are examined according to doing sports situations, a significant difference has been found between the groups in masculine gender role sub-dimension  $[F_{(2,357)}=6.06; P<.01]$ , but no significant difference has been found in feminine gender role and social desire sub-dimensions. When masculinity gender role is examined, the average of females doing team sports ( $\mathfrak{F}=105.73$ ) has been found to be higher than the average of females doing individual sports ( $\mathfrak{F}=104.46$ ) and of non-athletic females ( $\mathfrak{F}=99.94$ ). For masculinity, a significant difference has been found between females doing individual sports ( $105.73\pm12.98$ ) (n: 90) and non-athletic females ( $99.94\pm15.04$ ) (n: 180) (p<0.05). The property of Masculinity which is a sub-dimension of gender role had lower average value for women not doing sports than women doing sports.

This research has been carried out to determine the gender roles and body perception levels of female athletes and females non-athletes.

When the demographic information of the subjects was examined according to the age variable, it has been found that 17-20 year -old individuals consisted % 65 of the participants in the research. When the substance that subjects of the research used was examined, it has been determined that the experimental group used the vitamin substance because of their doing active sports and smoking ranked number two. It is known that parents and family members are effective on the individual in childhood and puberty spiritual development, knowing him, having identity, adapting and habits. The reason why the vitamin rate is high for the ones playing sports is considered that the player keeps away from the harmful habits that affect him negatively.

In the study out by Tiggemann [22], this study investigated the interrelationships between weight, weight dissatisfaction, restraint and self-esteem in a group of young adult women and men. The subjects were students at the Flinders University of South Australia, a tentative causal model proposed actual overweight to lead to body dissatisfaction, which causes the person to diet, with the resulting failures leading to loss of selfesteem. This model was confirmed by path analysis for women, but not for men. In line with self-concept theory, subjective overweight was more strongly related to selfesteem for women than for men, with restraint mediating this relationship [22]. Physical self-perception is not only a research subject for the field of sports but also a research subject for other fields of education. In a study related with physical self-perception, it was carried out on 510 university students between 18 and 29 years old (234 female and 276 male) and it was concluded that while the Self-esteem variable provided significant predictors to Learning Approach, Performance Approach and Performance Avoidance goals, Global Physical was the variable, which provided significant predictors only to Learning Approach goal [23].

Family patterns of gender role attitudes in his study related to family patterns of gender role attitudes, to examine the conditions under which these patterns emerged and to assess the implications of gender attitude patterns for family conflict. Participants were mothers, fathers and first- and second-born adolescents from 358 White, working and middle-class US families. Results of cluster analysis revealed three gender role attitude patterns: egalitarian parents and children, traditional parents and children and a divergent pattern, with parents more traditional and children more egalitarian. These family patterns were related to socioeconomic status, parents' time spent in gendered household tasks and with children and the gender constellation of the sibling dyad. The traditional family group reported the most family conflict [24].

When the relation between doing sports situations and multi-dimensional body perception levels of females participated in research was examined, no significant difference has been found between the groups in Appearance evaluation, Fitness evaluation and health orientation sub-dimensions. Asfor appearance orientation and fitness orientation dimensions; a significant difference has been found between the values of females doing sports and non-athletic ones. In health evaluation dimension, a significant difference has been found between females doing team sports and nonathletic ones, as for fitness orientation and body areas satisfaction sub-dimensions, a significant difference has been found between females doing individual sports and females doing team sports. Appearance orientation, fitness orientation, health evaluation and body areas satisfaction features of non-athletic group have been found to be lower than athletic females (Table 2).

It has been determined that there is a relation between being glad of body and self-respect and low self-respect also carries with the body dissatisfaction due to bad nourishment [25]. In a research on young athletes, it has been found that athletes are more motivated than non-athletes and has the capacity of endurance and resistance towards stress; on the contrary; non-athletes have less resistance towards stress, less tendency of showing off and less aggressiveness [26]. Many researchers have been carried out over athletic and non-

athletic females. In order to find if athletic and non-athletic females are pleased of their bodies, body dissatisfaction scale was applied and it has been found that non-athletic females have more dissatisfaction about their bodies than athletic ones [27]. In the study carried out by Oksuz [28], it has been determined that socioeconomic status (SES) and social comparisons on body perception and to identify their relationship to unhealthy behaviors and changing body structures, by assessing body perception in youths. A questionnaire was administered to 640 university students. The topics covered included SES, body definitions, behaviors related to body weight (such as exercise, dieting, starving, using diet foods, drug use and bingeing and purging) and a social comparison scale. Age was not related to eating habits or body perception, whereas gender affected most such behaviors. Low SES was found to be a risk factor for unhealthy behavior related to body perception in males, whereas high SES was identified as a risk factor in females [28].

When the relation between gender roles and doing sports variable of the subjects participated in research is examined, a significant difference has been found in masculine gender role sub-dimension, but no significant difference has been found between feminine gender role and social desire. When masculinity gender role is examined, it is seen that the difference between ones doing team sports and non-athletes is significant. The masculine gender role value of females doing team sports has been found to be higher than the average of females doing individual sports and non-athletic females (Table 3).

In another research in which gender roles were examined according to different sports branches, it has been found that athletes in team sports are androgynous (to be flexible enough to show both feminine and masculine behaviors according to the situations) and athletes in individual sports have uncertain gender role features [29]. It was reported that the feminine role in athletic females changed into masculinity androgynous feature might have increased with this decrease of femininity [30]. Self-respect and gender role were examined and it was pointed out that androgynous women had higher self-respect than females in femininemasculine and uncertain gender roles [31]. The question why female football players played football was evaluated and it was reported that females consciously resisted male pressure or playing football made them have a different gender position so they learnt how to cope with the gender complexion while playing football [32]. The gender

roles of male and female athletes were examined and it was determined that females and males playing individual sports show androgenous and masculine features. It has been pointed out that health due to sports increases masculinity and this is acceptable for both females and males. It has been reported that masculinity slowly gives its place to the androgenous structure [33]. Gender, gender role and body image Study subjects consisted of 60 male and 106 female undergraduates who differed in gender roles. Participants were asked to complete a bodyself relations questionnaire and a measure of self-esteem [13]. In the study where the role of gender for female and male sportsmen was investigated in terms of sports variable, the purpose was to compare the gender role orientation and gender role classification of female and male athletes to those of their nonathlete counterparts. A total of 463 athletes and 378 nonathletes completed the Bem Sex Role Inventory. The findings indicated that athletes' score was higher on the masculinity and femininity subscales than do nonathletes. Men had higher scores on masculinity than did women, whereas women had higher scores on femininity than did men. In addition, both men and women athletes were mostly classified in the androgynous category. These findings are discussed in relation to the competitive sport environment and Turkish society [34].

When gender roles of athletic females and nonathletic females were examined, the femininity gender roles of non-athletic females were found to be higher than athletic ones'. Masculinity gender role is high in athletic females, especially in females doing team sports as compared to the other female groups. The average of social desire has been found to be higher in females doing individual sports. A significant difference has been determined between doing sports situations and body perception levels and gender roles. It has been found that appearance orientation, fitness orientation, health evaluation and body areas satisfaction features, which are body perception sub-dimensions, differ according to athletic and non-athletic females. Appearance orientation, fitness orientation, health evaluation and body areas satisfaction features of non-athletic females have been found to be lower than athletic ones'. When gender role is examined, the average of masculinity gender role of females doing team sports has been found to be higher than other female groups and feminine features of nonathletic females have been found to be higher. It is thought that sports affects body perception level and gender role in individuals.

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