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## **Attitudes to Body Image in Athlete and Non-Athlete Female Students**

**Tahmineh SAEEDI, Mani IZADI, Hamid ARAZI**

Department of Exercise Physiology, Faculty of Sport Sciences, University of Guilan, Rasht, IRAN

**Email:** [mani.izadi1989@gmail.com](mailto:mani.izadi1989@gmail.com)

### **Abstract**

The aim of this study was to compare attitudes to body image in athlete and non-athlete female students. For this purpose, 200 athlete and non-athlete female students were randomly selected and took part in the present study. Questionnaires were distributed among volunteers and finally, 160 questionnaires were collected and used. Self-Body image was assessed using the Multidimensional Body-Self Relations Questionnaire (MBSRQ) included 69 items, 7 factors subscales and 3 additional subscales. Variables regarding athletes and non-athletes were compared using independent sample t test. Research findings showed that the scores of some subscales such as “Appearance Orientation” ( $p<0.05$ ), “Health Evaluation” ( $p<0.01$ ), “Health Orientation” ( $p<0.01$ ) and “Body Areas Satisfaction” ( $p<0.01$ ) in athletes were significantly higher than those of non-athletes. However, scores of fitness evaluation in non-athletes were significantly higher than athletes ( $p<0.01$ ). There was no significant difference between the two groups in other subscales. Exercise training appears to improve some subscales of attitudes to body image of female athletes and it can serve as a therapeutic way to enhance the attitudes of non-athlete ones.

**Keywords:** Appearance, Satisfaction with body, Exercise Training, Female Students

## Introduction

Throughout their lifespans, human beings always internalized an image of their body and various biological, environmental and psychological factors contributing to body image. Social stress is originated by the increasing interest in being thin and a wide range of ideas on body structure has led to the prevalent dissatisfaction with body among women which, in turn, reduces self-esteem and causes depression and other kinds of psychological disorders (Zarshenas et al., 2010). Body image is an individual's subjective image of his/her body size, shape and form and includes personal feelings about body parts and structures (Raygan et al., 2007). Thompson believes that the construct of the physical appearance involves three components: 1- perceptual components referring to estimation of body size; 2- subjective components concerning aspects such as satisfaction, attention, concern, cognitive evaluation and anxiety; 3- behavioral components referring to avoiding situations causing an individual to experience shame about his/her physical appearance (Thompson, 1990).

Both males and females put emphasis on body image but they often consider the latter to be more significant because the current social standards regarding feminine beauty put excessive emphasis on the tendency to being thin. Numerous studies have shown a significant dissatisfaction with body size and body shape among females (Rodin et al., 1984; Tiggemann, 2004). Therefore, females are simply exposed to possible factors of distress regarding their body image (Cash et al., 1999; Schwartz et al., 2004). body image is a momentary subjective thought which a person has about his/her body (Zarei et al., 2012). Prevalence of dissatisfaction with body is now a main concern since it is associated with mental disorders such as decrease of self-esteem, depression, social anxiety, eating disorders, sexual disorders and diseases related to body shape (Cash et al., 1990; Nye et al., 2006). Although the pressure is seen in the society, most of individuals are expected to experience a feeling of dissatisfaction with their body image throughout their life (Babiss et al., 2009).

In addition to various preventive and therapeutic methods available in this field, physical exercise and activity is considered as a pleasant way of enhancing satisfaction with body image (Fox et al., 1989; Sonstroem, 1997). Moreover, physical activity plays a positive role in individual perception of their physique, increasing the sense of strength and, ultimately, satisfaction with the whole body. As mentioned in the literature, people with high levels of satisfaction with their body image and low levels of intellectual and mental problems may take the most advantages of their capacities because of their high self-confidence and mental and physical health (Home et al., 1991). This is directly related to the rate of physical activity and of participation in regular exercise.

Most researches on body image and exercises, which evaluate the effect of aerobics, have shown that this type of exercise is effective in enhancing level of satisfaction with body image and reducing social/physical anxiety (Bartlewski, 1996; Davis et al., 1991; Eickhoff et al., 1983). Besides, exercise may cause obvious changes in the body such as muscle strength, overall reduction of skin fold thickness and increase of body net weight, and finally, increase in level of satisfaction with body image (Tucker, 1987a, 1987b). Furthermore, participating in physical activities can be considered as a way that helps the individual to be accepted by their friends, parents, teachers and tutors. Egotism or stating one's own beliefs and characteristics is also acquired and enhanced through taking part in physical and athletic exercises (Stice et al., 2002).

Negative body image is associated with mental disorders and anxiety regarding one's body and appearance (Feingold et al., 1998). Findings of Bellino et al (2006) indicate that the

prevalence of phobia of body deformity and fear of body image among general populations and populations with psychological disorders are 2 and 12%, respectively (Bellino et al., 2006). Biby (1998) showed that 72% of the university students are dissatisfied with their bodies and appearances and have a phobia regarding their body image and the other 28% have body deformity disorder. Findings suggest that fear of body deformity and dissatisfaction with physical appearance are associated with psychological disorders such as depression, O.C.D, social anxiety and drug abuse (Biby, 1998). In addition, Veale & Riley (2001) have reported that there is a relationship between fear of deformity and O.C.D. behavior; in such a way that such individuals express a variety of obligatory – O.C.D. behaviors in order to find subjective defect (Veale et al., 2001).

In regards to prevalence of the negative approach and deficient body image in athlete and non-athlete university students and their level of physical activity, it is necessary to consider the issue in the scope of the therapeutic treatment based on their role in the recruiting targeted activities. Moreover, a few researches have been done on the approach to body image. Hence, the present study seeks to compare attitudes to body image in athlete and non-athlete university students.

## **Material and Methods**

### **Participants**

The research sample included 200 athlete and non-athlete female university students living in dormitories of Guilan University who were selected using random sampling. The athletes were involved in regular exercise training at least 3 sessions per week and at the period of the present research were students of sport sciences. The questionnaires were distributed among all the members of the sample and a total of 160 (80 for the athletes and 80 for the non-athletes) questionnaires were collected and used for the research.

### **Data collection**

The questionnaire used in this research was the Multidimensional Body-Self Relations Questionnaire (MBSRQ) (Cash, 2000). MBSRQ consists of a total of 69 items. It includes seven subscales named “Appearance Evaluation”, “Appearance Orientation”, “Fitness Evaluation”, “Fitness Orientation”, “Health Evaluation”, “Health Orientation” and “Illness Orientation” which represent 2 dispositional dimensions — “Evaluation” and “Orientation” for each of three somatic domains of “Appearance”, “Fitness” and “Health/Illness” with the exception of the last domain which only contains orientation dimension (Illness Orientation).

In subscales, “Evaluation” refers to feelings of physical attractiveness, physical fitness and physical health. The higher scores in three domains reflects more satisfaction with them. Likewise, Orientation (Cognitive-Behavioral Orientation) refers to extent of investment in appearance, physical fitness, physical health and extent of reactivity to being ill. The higher scores in three domains reflects more importance and subsequently more effort for enhancing them.

In addition to seven subscales mentioned above, MBSRQ has three special subscales: (1) The Body Areas Satisfaction Scale (BASS) evaluates satisfaction with specific body attributes, (2) The Overweight Preoccupation Scale assesses anxiety about fat, weight vigilance, dieting and eating restraint and, (3) The Self-Classified Weight Scale evaluates self-assessment of weight from “very underweight” to “very overweight”.

Reliability of MBSRQ subscales has been shown to be adequate to very good. Cronbach’s alpha for the subscales ranges from 0.73 to 0.89 for females and from 0.70 to 0.91 for males (Cash, 2000).

**Statistical analysis**

The normality of data was determined through Kolmogorov-Smirnov test. Descriptive statistics (mean ± standard deviation) were used to describe the results. The independent sample t test was used to compare variables studied regarding athletes and non-athletes. Data was analyzed using SPSS 16 software at the significance level of  $p < 0.05$ .

**Results**

Table 1 presents the mean and standard deviation of scores of subscales. According to table 1, scores pertaining to subscales of “Appearance Orientation” ( $p < 0.05$ ), “Health Evaluation” ( $p < 0.01$ ), “Health Orientation” ( $p < 0.01$ ) and “Body Areas Satisfaction” ( $p < 0.01$ ) in athletes are significantly higher than those of non-athletes. However, scores of “Fitness Evaluation” in non-athletes is significantly higher than that in athletes ( $p < 0.01$ ). There is no significant difference between the two groups in other subscales.

**Table 1.** Mean and standard deviation of subscales regarding attitudes to body image in athletes and non-athletes

MBSRQ SUBSCALES	Athlete (n=80)	Non-athlete (n=80)	P value
<b>FACTORS SUBSCALES:</b>			
APPEARANCE EVALUATION	2.58±0.35	2.57±0.34	0.887
APPEARANCE ORIENTATION	2.62±0.78	2.34±0.67	0.018*
FITNESS EVALUATION	2.90±0.40	3.09±0.33	0.002**
FITNESS ORIENTATION	2.61±0.34	2.52±0.28	0.055
HEALTH EVALUATION	2.85±0.53	2.51±0.45	0.001**
HEALTH ORIENTATION	2.52±0.45	2.33±0.44	0.004**
ILLNESS ORIENTATION	2.93±0.37	2.91±0.36	0.672
<b>ADDITIONAL SUBSCALES:</b>			
BODY AREAS SATISFACTION	2.43±0.78	2.01±0.69	0.001**
OVERWEIGHT PREOCCUPATION	2.80±0.71	2.89±0.65	0.481
SELF-CLASSIFIED WEIGHT	2.91±0.74	2.73±0.62	0.088

\* Significance at  $p \leq 0.05$ , \*\* Significance at  $p \leq 0.01$

## Discussion

Since body image is a complicated construct relating to the individual's perceptions and how he/she is seen, especially regarding his/her physical appearance, aspects such as body satisfaction, self-appearance, importance of internalized appearance ideals and mentalities concerning body image are also proposed in the area of body-image-therapy (Cash et al., 2004).

Results obtained from McCreary et al (2008) showed that individuals have a strong tendency to have a muscular body and these are the ones who are more satisfied with their body limbs and face lesser risks of feeling anxious about their body weight and their body image (McCreary et al., 2009). Moreover, an increase in strength and power enhances individuals' capabilities to manage their daily affairs (specifically regarding the affairs requiring physical effort) and this may contribute to their success. However, for everybody, improvement of physical variables is more tangible than mental variables such as level of anxiety, self-confidence or satisfaction with body image. For example, satisfaction felt by an individual as a result of the enhancement of power in initial weeks of the strengthening program is more pleasant and clear than other mental alterations. Therefore, this pleasant feeling naturally improves individual's satisfaction with their own body image. Another reason is the increase of the level of self-esteem (Babiss et al., 2009; Sonstroem, 1997).

College students are particularly susceptible to social pressures related to physical appearance. This period of time coincides with formation of one's identity and self-worth in many number of domains such as physical self-perception (Crocker et al., 2003; Crocker et al., 2001). Thus, Dissatisfaction with body image, weight concerns and physical attractiveness are significant among college students. So that as much as 90 percent of them are worried about body image. While, those students who pursued health-related behaviors had higher self-esteem, and lower body shame and physical dissatisfaction (Lowery et al., 2005).

Results of the present research show that scores of "Appearance Orientation" and "Body Areas Satisfaction" in athletes were significantly higher than non-athletes. Some studies found that athletes report lesser or analogous concerns about body image compared to non-athletes (Anderson et al., 1996; Fulkerson et al., 1999; Hausenblas et al., 1999). However, athlete population because of sport-related tasks such as performance advantages and weight requirements, or social pressures which are exerted by coach, judge and teammates seek to obtain an ideal physique (Davis et al., 1989; Hausenblas et al., 2001; Roa et al., 1986). Thus, athletes may typically follow the behaviors relating to physical appearance and ideal physique because either aesthetic aspects or functional advantages.

Based on findings of the present study, scores pertaining to "Health Evaluation" and "Health Orientation" in athletes were significantly higher than those of non-athletes. Conversely, scores of "Fitness Evaluation" in non-athletes were significantly higher than athletes. This result complies with that of Strelan et al which showed that individuals exercising for continuous muscle improvement and enhancement of physical attractiveness have lower levels of self-esteem and achieve no improvement in their body status. However, those who exercise with the purpose of getting healthy, fit, to have a better mood and for entertainment see a positive effect on satisfaction with body and self-esteem (Strelan et al., 2003).

Additionally, A reason for these results is the multidimensionality of body aspects since fitness evaluation includes cases such as muscle strength measurement, muscle endurance and flexibility (Fisher et al., 1994), while the questionnaire used in this research emphasizes more

on aspects regarding skill and consistency in doing fitness exercises and physical appearance. On the other hand, individuals selected in this research as the sample were chosen among general population of the society and not those who were patients in treatment centers.

There is no significant difference between the two groups in other subscales. Therefore, the least differences between athletes and non-athletes were especially seen in “Appearance Evaluation”, “Illness Orientation”, “Overweight Preoccupation” and “Self-Classified Weight”. Although the results of the current study indicated some advantages of exercise and physical activity in terms of self-report measures of body image, Competitive athlete female students may experience incompatibilities between athletic physique and ideal feminine body which can influence their body image and suppress positive impacts of exercise training on self-perception of physical appearance. It is worth noting that the kind of sport and competitive level among athletes subjects did not evaluated in this study. This along with other constraints such as fail to assess the age, body composition and BMI may complicate interpretation of results.

## Conclusion

In short, the present study can be applied to various populations such as females and males from different age groups and various socioeconomic classes. In this way, it is possible to compare results. Moreover, since the research was performed on general individuals, doing a similar investigation on patients with clinical body image disorders or eating disorders may be effective in increasing the accuracy of the results and conclusion of the present study. Exercise training and Being physically active can influence the improvement of some aspects of the body image approach in female athletes and it may be used as a treatment tool to change the perspective of non-athlete ones.

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## Conflicts of Interest

The authors have no conflicts of interest to acknowledge.

## Corresponding Author

Mani IZADI

Department of Exercise Physiology, Faculty of Sport Sciences, University of Guilan,  
Rasht, IRAN

**Email:** [mani.izadi1989@gmail.com](mailto:mani.izadi1989@gmail.com)



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