



Self-Esteem and Its Relationship to Body Image Among Female Athletes

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Recieved 20/02/2026 Accepted: 20/04/2026 Publisher: 25/07/2026

Abstract

This study aimed to uncover the relationship between body image and self-esteem among female athletes, as well as to identify differences in both body image and self-esteem according to the age variable. The study stems from the importance of body image in shaping a woman's perception of herself and her level of satisfaction with her physical appearance, given that this satisfaction is closely linked to her psychological state, self-confidence, and personal and social adjustment.

The descriptive-analytical approach was adopted due to its suitability for the nature of the topic. The sample consisted of 60 female athletes, divided equally into two age groups: the first group aged 17–28 years ($n = 30$), and the second group aged 29–43 years ($n = 30$). The study was conducted in private sports gyms in the Province of M'Sila and the Institute of Sciences and Techniques of Physical and Sports Activities at Mohamed Boudiaf University of M'Sila.

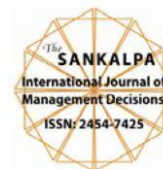
Data were collected using the Coopersmith Self-Esteem Inventory and the Body Image Scale. The Statistical Package for the Social Sciences (SPSS) was utilized for data processing, employing Pearson's correlation coefficient and the independent-samples t-test. The results revealed a statistically significant positive correlation between self-esteem and body image, with a correlation coefficient of $r = .646$ at the $p < .01$ significance level. Furthermore, the findings indicated statistically significant differences in both body image and self-esteem attributable to the age variable.

The study concluded that satisfaction with body image is positively associated with self-esteem, and that practicing physical activities contributes to enhancing physical appearance, boosting self-confidence, and improving psychological adjustment. The study recommended the continuation of sports practice, fostering positive body perceptions, and conducting further research connecting body image to other psychological and social variables.

Keywords: Body Image, Self-Esteem, Women, Female Athletes, Sports Activity.

1. Statement of the Problem

Human beings are subject to the laws of growth that progress toward maturity, adhering to general developmental characteristics. As the developmental process continues and grows in complexity—encompassing physical, cognitive, emotional, and social domain—an individual begins to construct a self-view that includes ideas, attitudes, meanings, and perceptions; more precisely, the individual forms a self-concept (Al-Dakhil, 2007). Simultaneously, individuals develop ideas, feelings, and perceptions regarding their physical body, forming a mental image that generates internal acceptance or rejection of that body image (Al-Dakhil, 2007).



Every individual holds an ideal mental image of their physical self and uses this ideal to evaluate concepts related to body image. The social psyche is influenced by several factors, such as anxiety, depression, and self-esteem. Body image is defined as an individual's mental representation of their physical structure and functional efficiency, determined by the shape, proportion, and overall appearance of body parts (Al-Shabrawi, 2001). However, the human body is susceptible to various disruptions, such as accidents and illnesses, which can distort its aesthetic appeal and cause loss of physical attractiveness and fitness.

Beauty represents a fundamental need for girls and women. A woman's feelings toward her body—whether of acceptance or rejection—directly impact her mental health, self-esteem, and psychological adjustment; the importance of external appearance is deeply rooted in her subconscious thinking. From birth through various developmental stages from childhood to maturity, women are often evaluated on an aesthetic scale as either beautiful or plain. Judgment has historically been—and continues to be—passed on a woman's external appearance rather than her actions, achievements, or intellectual capabilities (i.e., based on superficial attributes rather than her mind and way of thinking).

A beautiful, toned, sculpted body free of excess fat and blemishes represents a key dimension in the development of women's self-esteem due to its connection with physical appearance, which serves as the mediator between the self and the external world. While the interconnection and mutual influence between body and mind can lead to difficulties in self-esteem, this relationship is not inevitable; it is mediated by factors such as the degree of body image acceptance or rejection, self-acceptance, self-confidence, and overall self-worth. These factors serve as crucial facilitators for achieving optimal psychological adjustment.

A healthy level of self-esteem enhances a woman's sense of social efficacy, enabling her to achieve success and productivity in her career. It also fosters the growth of self-identity and personal perspectives regarding roles, relationships, and aesthetic attributes. Most young women believe that engaging in sports plays a vital role in sculpting their bodies, removing excess fat, achieving good posture, and ultimately improving their body image.

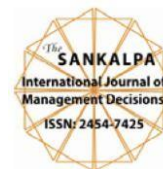
Based on these premises, the present study addresses the following research questions:

1. Is there a relationship between body image and self-esteem among female athletes?
2. Are there statistically significant differences in self-esteem among female athletes attributable to the age variable?
3. Are there statistically significant differences in body image among female athletes attributable to the age variable?
4. Does low self-esteem stem from body image dissatisfaction among female athletes?

2. Hypotheses

1. There is a statistically significant correlation between body image and self-esteem among female athletes.
2. There are statistically significant differences in self-esteem among female athletes attributable to the age variable.
3. There are statistically significant differences in body image among female athletes attributable to the age variable.

3. Significance of the Study



The significance of this study is reflected in two main areas:

- **A. Theoretical Significance:** Lies in exploring the extent to which self-esteem is linked to body image among an important segment of society, namely female athletes.
- **B. Practical Significance:** Benefits specialists and researchers in this field, whether in academic institutions or entities directly involved with this population.

4. Objectives of the Study

1. To closely understand the psychological and physical suffering of women who are dissatisfied with their bodies.
2. To identify the impact of body image dissatisfaction on women's self-esteem.
3. To provide a new contribution and additional academic reference focusing on this demographic group.
4. To raise awareness among researchers and psychologists regarding this population and emphasize the need to address their concerns.
5. To open avenues for future studies incorporating new variables.

5. Rationale for Selecting the Topic

Women possess sensitive feelings, a natural affinity for beauty, and a desire to appear attractive. However, struggling with obesity or body dissatisfaction can subject women to silent psychological and physical suffering. The primary reasons for selecting this topic include:

1. The wide prevalence of obesity and the increasing cultural focus on physical appearance and body shape, particularly among women.
2. The relative marginalization of this group and a lack of attention paid to their psychological suffering.
3. The scarcity of scientific literature and empirical studies focusing on this specific issue within the local context.

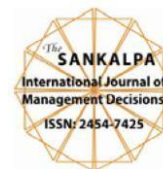
6. Review of Related Literature

Previous studies indicate that body image is of paramount importance to women. A negative body image can lead to depression and low self-esteem, as the body serves as a primary source of identity (Fayed, 2004). Body dissatisfaction among women often triggers psychological and psychosomatic difficulties, confirming that a negative self-concept frequently stems from a distorted body image (Fayed, 2004). Body image is a vital component of the sense of self; it is intrinsically linked to self-esteem and influenced by numerous socio-cultural factors that affect social acceptance and the desire for social belonging (Fayed, 2004).

Furthermore, Kafafi and Al-Niyal (1996) noted that ideal body image expectations differ by gender: males tend to evaluate their bodies globally, emphasizing upper-body strength, muscularity, and broad shoulders, whereas females evaluate their bodies through specific dimensions such as weight, attractiveness, muscular coordination, and physical symmetry. These findings underscore the importance of a well-proportioned, fit body for women in fostering femininity and self-confidence, in contrast to the depression and low self-esteem associated with body dissatisfaction and obesity.

7. Definition of Key Terms

The main terms serving as foundational concepts for this study are defined below:



- **Body Image:** The mental representation an individual forms of their physical appearance, size, and structural harmony, alongside their emotional feelings toward this representation.
- **Self-Esteem:** The overall evaluative judgment an individual makes about their worth, competence, and value as a person.
- **Female Athletes:** Women who regularly engage in structured physical exercise or sports activities within specialized facilities or academic institutes.

8. Theoretical Framework

8.1. The Nature of Body Image

Body image is a key psychological variable that has received relatively recent research attention due to its complexity and depth. Paul Schilder was among the first to formalize body image within a psychological context, moving it beyond philosophy and neurology. Schilder defined body image as the picture of our own body which we form in our mind—the way the body appears to ourselves (as heavy, thin, tall, or short). Consequently, body image is central to personality formation, serving as the baseline for self-concept, behavior, and emotional responses (Al-Hammouri & Al-Salhi, 2011).

Body image encompasses two intertwined dimensions:

- *Perceptual Cognitive Dimension:* The mental perception of the body's physical dimensions and appearance.
- *Affective/Evaluative Dimension:* The feelings of satisfaction, distress, or rejection experienced toward that perceived image.

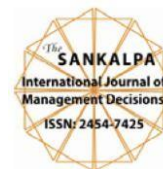
Psychologists add a third dimension: how an individual believes others perceive their physical self (Al-Hammouri & Al-Salhi, 2011). According to Salim (2002), body image develops through internal sensations, social interactions, and emotional experiences. Banson conceptualized body image development across life stages as contingent upon cognitive growth, describing layers of outward self-perceptions accumulating like growth rings in a tree trunk (Salim, 2002).

Major Body Image Somatotypes

1. **Ectomorphic (Lean/Slender) Pattern:** Characterized by thinness, light skeletal structure, narrow chest, and thin limbs (Qamishli.com, 2007).
2. **Mesomorphic (Athletic) Pattern:** Characterized by a strong structure, well-developed musculature, broad shoulders, and a tapering torso (Qamishli.com, 2007).
3. **Endomorphic (Pyknic/Overweight) Pattern:** Characterized by soft roundness, excess adipose tissue around the torso, a broad face, and a short neck (Qamishli.com, 2007).

Factors Influencing Body Image Formation

1. **Prevailing Social Values:** Cultural standards regarding desirable body sizes have shifted dramatically; obesity, once viewed as a symbol of health and wealth, is now culturally associated with attractiveness issues or lack of self-control (Kadr, 2007).
2. **Social Stigmatization:** Negative depictions of overweight individuals in media, cartoons, and social humor, alongside medical warnings regarding health risks (Kadr, 2007).



3. **Self-Perception and Overall Self-Worth:** Individual self-esteem levels and exposure to verbal or physical harm (Kadr, 2007).
4. **Biologically Determined Physical Changes:** Transformations associated with puberty, pregnancy, illness, surgical interventions, or physical disabilities (Kadr, 2007).

Body Image Satisfaction and Self-Actualization

Satisfaction with body image plays an active role in self-actualization, allowing individuals to utilize their full potential and talents when supported by an encouraging environment (Salim & Al-Sha'rani, 2006). Individuals satisfied with their body image demonstrate self-acceptance, intrinsic motivation, sustained capacity for appreciation, and creativity (Salim & Al-Sha'rani, 2006). Conversely, women dissatisfied with their bodies may overestimate their physical size, perceiving themselves as heavier than they actually are and engaging in extreme weight-loss behaviors to conform to contemporary thinness ideals (El-Eswi, 2007).

Body Image and Sports Activity

Gauthier and Yarworth (1978, as cited in Safwat et al., 1989) noted that higher self-esteem positively influences body image, promoting greater quantitative and qualitative participation in sports activities. Similarly, Walsh-Wiebeaid (1980, as cited in Safwat et al., 1989) found that a positive body image and high self-esteem correlate with elevated athletic performance, whereas low performance often stems from body dissatisfaction. Regular physical activity (e.g., gymnastics, swimming, aerobics) offers women a viable pathway to overcome obesity, maintain flexibility and coordination, and improve overall physical attractiveness (Safwat et al., 1989).

Behavioral Consequences of Body Image

During early to middle adulthood (ages 19–34), physical capabilities peak; however, lifestyle factors, environmental stressors, and reduced metabolic activity can lead to weight gain, anxiety, and social withdrawal (Suleiman, 2005). Disruption in body image frequently produces negative feelings toward specific body parts or the whole body, inducing frustration and hindering social interactions (Quillon, 1990). As Brown noted, obesity significantly impacts self-concept and body image, generating emotional distress that affects overall personality development (Ibtisam, 2006).

8.2. Self-Esteem

Definition of Self-Esteem

- **Small and EGallery (2001):** Defined self-esteem as an individual's sense of self-worth and respect, encompassing self-confidence and self-satisfaction.
- **Robins et al. (2001):** Conceptualized self-esteem as a global emotional state concerning the self (Nurmela, 2006).
- **Manos et al. (2005):** Defined it as a positive or negative attitude toward oneself, based on the evaluation of one's characteristics, involving feelings of satisfaction or dissatisfaction.
- **Frost and McKelvie (2005):** Referred to self-esteem as an overall global view of the self (Nurmela, 2006).
- **Pattan et al. (2006):** Noted that self-esteem reflects an individual's sense of value or self-respect, functioning as the evaluative component of self-concept.



- **Wade (2007):** Defined self-esteem as an individual's overall emotional evaluation of their own worth.

Models of Self-Esteem

- **Social Acceptance Model:** Proposes that self-esteem originates from feeling accepted and valued by others (Twenge & Campbell, 2001).
- **Competence Model:** Asserts that self-esteem is derived from perceived competence in specific life domains (Twenge & Campbell, 2001).
- **Cultural Model:** Suggests that cultures emphasizing individual achievement foster higher baseline self-esteem (Twenge & Campbell, 2001).

Body Image and Self-Esteem Interactions

Self-esteem plays a central role in mental health (Lynch et al., 2001). High levels of self-esteem correlate with life satisfaction, assertiveness, and independence (Popovic, 2005; Twenge & Campbell, 2001). While self-esteem is generally high in childhood, it often declines during adolescence due to body image fluctuations, particularly among females (Clay et al., 2005).

In many cultures, physical appearance strongly dictates female self-esteem; thus, physical changes or illness can negatively alter emotional well-being (Manos et al., 2005). Whereas men often derive self-esteem from achievements and status, women's self-esteem is more closely tied to perceived attractiveness and social desirability (Latha et al., 2006). Body image dissatisfaction during adolescence is heavily correlated with low self-esteem, anxiety, depression, and eating disorders (Davison & McCabe, 2006; Ebrahim, 2003; Newman et al., 2006).

9. Methodology

9.1. Research Design

This study employed a descriptive-analytical research design, which is appropriate for investigating, analyzing, and interpreting the relationship between body image and self-esteem among female athletes.

9.2. Population and Sample

The target population consisted of female exercise participants in M'Sila Province. A purposive sample of $N = 60$ female athletes was selected and divided into two equal age groups:

- **Group 1 (Younger Adult Group):** $n = 30$, aged 17–28 years.
- **Group 2 (Older Adult Group):** $n = 30$, aged 29–43 years.

9.3. Study Location and Period

- **Location:** Private sports fitness centers in M'Sila Province and the Institute of Sciences and Techniques of Physical and Sports Activities at Mohamed Boudiaf University of M'Sila.
- **Period:** Fieldwork was conducted in August during the 2024–2025 academic year.

9.4. Research Instruments

1. **Coopersmith Self-Esteem Inventory (CSEI):** Developed by Stanley Coopersmith (1967) and adapted into Arabic by Farouk Abd El-Fattah (1981; Abdel-Hamid, 1985). Designed for individuals aged 13 and older, the short form comprises 25 items evaluated as *Applies* or *Does Not Apply*.

- **Scoring:** Positively phrased items (1, 4, 5, 8, 9, 14, 19, 20) receive 1 point for "Applies" and 0 for "Does Not Apply". Negatively phrased items (2, 3, 6, 10, 12, 13, 15, 16, 17, 18, 21, 22, 23, 24, 25) receive 1 point for "Does Not Apply" and 0 for "Applies". Total raw scores are multiplied by 4 to yield a score range of 0–100. Categorization: Low (20–40), Moderate (40–60), High (60–80+).
- 2. **Body Image Scale:** Developed by Rosalin et al. (1991) and adapted to the Arab context by Majdi Mohamed El-Desouky. The scale consists of 18 items measured on a 5-point Likert scale (*Always, Often, Sometimes, Rarely, Never*). The scale was validated in previous research using test-retest and split-half reliability methods.

9.5. Statistical Analysis

Data processing was carried out using SPSS. Statistical techniques included:

- Pearson product-moment correlation coefficient (r).
- Independent-samples t-test.

10. Results and Discussion

10.1. Verification of Hypothesis 1

Hypothesis 1 states that there is a statistically significant correlation between self-esteem and body image among female athletes.

To test this hypothesis, Pearson's correlation coefficient was computed between scores on the Coopersmith Self-Esteem Inventory and the Body Image Scale.

Table 1: Correlation Coefficient Between Self-Esteem and Body Image (N = 60)

Variables	Self-Esteem	Body Image	p-value
Self-Esteem	1	.646**	<.01
Body Image	.646**	1	<.01

Note. $p < .01$

As displayed in Table 1, a statistically significant positive correlation was obtained ($r = .646$, $p < .01$). This result confirms Hypothesis 1. The strong positive relationship aligns with theoretical frameworks establishing that self-worth influences perception of physical appearance. When a woman receives positive feedback or holds positive self-perceptions, her overall self-esteem increases, reinforcing satisfaction with her physical body.

10.2. Verification of Hypothesis 2

Hypothesis 2 states that there are statistically significant differences in body image among female athletes attributable to the age variable.

An independent-samples t-test was conducted to compare body image scores across the two age categories.

Table 2: Independent Samples St\$-Test for Body Image Scores Across Age Groups

Age Group	n	Mean (M)	Standard Deviation (SD)	Calculated t-value	Critical t-value	Significance Level
17–28 Years	30	84.27	13.61	8.38	2.39	$p < .01$
29–43 Years	30	111.40	11.36			

Note. Critical t-value at $df = 58$, $\alpha = .01$ is 2.39.

As shown in Table 2, the calculated t-value ($t = 8.38$) exceeds the critical t-value (2.39) at $p < .01$. This indicates significant differences in body image scores based on age. Younger female athletes (17–28 years) exhibited different physical response dynamics, higher physical resilience, and distinct body image evaluations compared to the older group (29–43 years), whose changing biological capacities and family responsibilities may alter physical composition and body perception.

10.3. Verification of Hypothesis 3

Hypothesis 3 states that there are statistically significant differences in self-esteem among female athletes attributable to the age variable.

An independent-samples t-test was conducted to compare self-esteem scores across the two age categories.

Table 3: Independent Samples St\$-Test for Self-Esteem Scores Across Age Groups

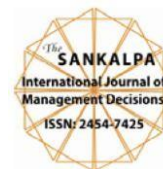
Age Group	n	Mean (M)	Standard Deviation (SD)	Calculated t-value	Critical t-value	Significance Level
17–28 Years	30	16.83	3.23	7.48	2.39	$p < .01$
29–43 Years	30	11.03	2.76			

Note. Critical t-value at $df = 58$, $\alpha = .01$ is 2.39.

As presented in Table 3, the calculated t-value ($t = 7.48$) exceeds the critical t-value (2.39) at $p < .01$. This confirms that younger female athletes (17–28 years) report significantly higher positive self-esteem scores ($M = 16.83$, $SD = 3.23$) than older female athletes ($M = 11.03$, $SD = 2.76$). Younger women often experience greater vitality, physical adaptability, and fewer bodily stressors compared to older women managing competing family or physical demands, leading to higher measured self-esteem.

11. Conclusion

The findings confirm that satisfaction with body image is directly linked to self-esteem among women. Higher body image satisfaction translates into elevated self-esteem, enhancing



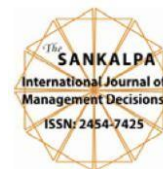
emotional stability, confidence, and positive health behaviors. Regular physical activity plays a pivotal role in maintaining body proportions, boosting self-worth, and preventing psychological distress related to weight concerns or social anxiety. Conversely, dissatisfaction with body image can foster self-doubt, emotional frustration, and maladaptive behaviors.

12. Recommendations

1. Integrate body image awareness into broader psychological development programs to enhance self-concept and address contemporary cultural pressures.
2. Encourage healthy coping mechanisms and positive self-talk among women to align body perception with self-confidence.
3. Promote lifelong engagement in sports and exercise among female university graduates, teachers, and community members to preserve physical fitness, body image satisfaction, and overall health.
4. Conduct further empirical studies examining body image in relation to additional psychological, social, and emotional variables across diverse female populations.

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