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Body Image Dissatisfaction and Self-Esteem: A Moderated Mediation Model

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ABSTRACT

Objective: The purpose of the present research was to investigate the mediating role of anxiety in the relationship between body image dissatisfaction and self-esteem; and to test whether gender moderated the proposed mediation model.

Methods: The sample participated in the study consisted of 50 adult men and women (24% men and 76% women), age from 25 to 68, attending aesthetic procedures, from November 2023 till March 2024, in one of the Ahvaz clinics. Three self-report instruments were used in this study which consisted of Rosenberg Self-Esteem Scale, Spielberger State-Trait Anxiety Inventory (STAI-Y) and, Littleton et al. (2005) Body Image Concern Inventory. Also, some information related to the characteristics of the respondents (gender and the level of education), were collected.

Results: The results indicated that (a) body image dissatisfaction negatively associated with self-esteem, (b) state anxiety plays a mediating role between body image dissatisfaction and self-esteem, (c) state anxiety negatively predicted self-esteem, (d) body image dissatisfaction positively related to state anxiety, and (e) gender was a moderator; meaning that the path from body image dissatisfaction to self-esteem was stronger for females than for males.

Conclusions: The findings have implications for improving self-esteem through body image and anxiety for men and women.

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Introduction

Modern society has determined a highly competitive standard for beauty (Rongmuan & McElmurry, 2011). Also, changes in the modern society have caused people to draw more attention to their bodies and how to manage and control it (Mozaffari Niya et al., 2019). Individuals may become distressed due to some criticisms of the parents, peers, friends, and spouse and feel their body is not attractive. Therefore, making changes to one's appearance as a result of psychological distress or sociocultural pressure can have an impact on one's daily life, self-esteem, behaviors and social activities. Several studies have assessed people's psychology for making a surgery request, demonstrating varying levels of satisfaction with cosmetic surgery (Kazeminia et al., 2023). Kazeminia et al.'s findings indicate that cosmetic surgery improves self-esteem and body image. Accordingly, the willingness of men and women who are interested in having cosmetic surgery has increased dramatically (Herruer et al., 2015).

Furthermore, a number of studies have investigated the personality and affective factors associated with self-esteem. A number of studies have investigated the personality and affective factors associated with self-esteem (Swickert et al., 2004). Different variables can have an effect on self-esteem. Maslow's (Schunk, 2012) theory of hierarchy of needs postulated that self-esteem is an important need and in order to reach self-actualization the self-esteem need must be met. Therefore, investigating the characteristics that increase or decrease self-esteem should be a goal in motivation and well-being. Besides, positive self-esteem can create a strong sense of self-worth and is a protective factor in mental health and social and academic behaviors.

Self-esteem is influenced by factors such as body image, and social and appearance anxiety. Research has shown that heavier body weight predicts lower self-esteem (O'Dea, 2012). Also, Zartaloudi et al. (2023) reported that body image and self-esteem have been related. Body image dissatisfaction is associated with anxiety and overall poor self-esteem. People with poor body image are more likely to diet and apply for cosmetic surgery and refer to aesthetic clinics. Positive self-esteem can create a strong sense of self-worth and is a protective factor in mental health and social and academic behaviors.

Body image satisfaction, which refers to individuals' perceptions of their physical appearance and the thoughts and/or feelings resulting from these perceptions (Thompson et al., 1999), tends to decrease from childhood into adolescence, following the onset of puberty and an increase of

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physical appearance for both girls and boys (Bully & Elosua, 2011). Body image dissatisfaction is common among adolescents, with prevalence rates ranging from 30% to 80% (Dion et al., 2015). Moreover, such dissatisfaction confers increased risk for the onset of eating disorders, depression, substance use and abuse, and suicidality in adolescents (du Roscoät et al., 2016). On the other hand, body image dissatisfaction may also play a role in the etiology of anxiety disorder symptoms in adolescents. Sociocultural models of body image dissatisfaction and eating disorder psychopathology (Fitzsimmons-Craft et al., 2012) propose that perceived pressure from family, peer, and the media, to conform to sociocultural body ideals leads individuals to internalize these ideals as being their personal standard, central to their self-worth, and important goals to attain. Actual and potential negative evaluations about one's physical appearance can also become feared outcomes that impose substantial threats to the self.

The relationship between symptoms of body dysmorphic disorder (body image) and depression, anxiety, and stress as well as the mediating role of self-esteem in explaining this relationship in people undergoing cosmetic surgery was studies by Gajic et al. (2022). The results showed that depression, anxiety, and stress were associated with the symptoms of body dysmorphic disorder. The results also indicated that self-esteem has a mediating role in the relationship between depression, anxiety, stress, and symptoms of body dysmorphic disorder. Besides, Choma et al. (2010) tested the mediating role of anxiety, caused by self- knowledge, in the relation between dissatisfaction of body image and self-esteem. They investigated whether gender moderated the proposed mediation model. Regression analyses demonstrated that greater self-surveillance predicted lower self-esteem, and this relation was fully mediated by body shame and appearance anxiety. Neither gender nor stereotypical gender roles moderated the proposed paths.

Furthermore, several eating disorder models posit that anxiety may function as a core mechanism through which body image dissatisfaction leads to and maintains disordered eating behaviors (Aspen et al., 2013). Another study reported higher frequency of selfie-editing, before online sharing, was associated with lower level of self-esteem. In addition, selfie-editing was found to have an effect on both self-esteem and social appearance anxiety (Lau et al., 2022). Also, primary goal of Vannucci and Ohannessian's (2018) study was to examine the associations between baseline body image dissatisfaction and subsequent anxiety trajectories in a diverse, community sample of adolescent girls and boys. Latent growth curve modeling was examined and the results

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indicated that higher body image dissatisfaction baseline was associated with higher multiple anxiety disorders. Another study (e.g. Javaid & Ajmal, 2019) indicated a positive relationship between level of confidence in the body image of adolescent males and their self-esteem. It was found that adolescent females in their later years of adolescence had a high level of self-esteem, as compared to adolescent females in their early years of adolescence. The authors found that adolescent females report feeling more conscious about their body image and weight as compared to adolescent males. Gajic et al.'s (2022) report that anxiety, and stress were associated with the symptoms of body dysmorphic disorder. Furthermore, elevated anxiety disorder symptoms during adolescence were associated with high rates of psychiatric comorbidity, significant impairment in social and academic domains, and increased health service utilization (Kendall et al., 2010; Merikangas et al., 2010). Moreover, individuals who develop body image dissatisfaction, and receive the social evaluative threats become sensitive to appearance related stimuli and can elicit anxiety symptoms. In support of these theoretical tenets, body image dissatisfaction consistently has been associated with more concurrent overall anxiety symptoms and, specifically, more symptoms of generalized anxiety disorder, panic disorder , social anxiety disorder , and separation anxiety disorder in community samples of adolescents (Abdollahi et al., 2015). In another study, Ohannessian et al. (1999), indicated that higher baseline body image satisfaction was associated with lower trait and state anxiety one year later. The results suggest body image satisfaction may play a role in the etiology of anxiety in adolescents. In addition, adolescents with better body image satisfaction reported lower anxiety symptoms (Cromley et al., 2012; Koronczai et al., 2013). Besides, some cognitive behavioral theories suggest that body image dissatisfaction also may influence the etiology of anxiety disorder symptoms (Aspen et al., 2013; Ohannessian et al., 1999). Some sociocultural models of body image dissatisfaction (e.g. Vannucci & Ohannessian 2018) indicate that perceived pressure from family, media and internet conform the body ideals which leads individuals to internalize these ideals and become standards for their self-worth. Zartaloudi et al. (2023), in their paper showed improvement of body appearance could result in higher self-esteem, which is defined as the global attitude of individuals regarding their positive or negative evaluations about themselves (Prichard & Tiggemann, 2008). Baker and Gringart (2009) reported that body image and self-esteem have been empirically linked. The results of their research indicated the body image concerns is a significant predictor of self-esteem in older

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adulthood. While women use various strategies to counter the effects of aging, men seem to be more negatively affected

Body image refers to an individual's subjective perception of their physical appearance, including their size, shape and overall attractiveness (Zartaloudi et al., 2023). It also encompasses individuals' attitudes, beliefs and emotions related to their body and how they perceive others' perceptions of their body. Consequently, body image could also be directly associated with social physique anxiety levels. Social physique anxiety has been defined as an emotional state that involves individuals' concerns about the way that their body is perceived by other people. Their beliefs about being poorly judged for their body structure, shape, height and weight may cause them great worry, embarrassment or shame (Hausenblas et al, 2004). An increase in the social physique Anxiety score was related to a decrease in the self-esteem score. As a result, women reporting higher social physique anxiety, compared to men, were more anxious than men, because of others' evaluations and judgements regarding their bodies. The female body may be more important in order to be attractive to the opposite sex or in finding a sexual partner (Light & Ahn, 2010). According to their results, the increase in global self-esteem was associated with an increase in body-esteem. Additionally, people who reported lower satisfaction with their body weight reported lower self-esteem. When individuals believe that others perceive their appearance to be more attractive, they tend to have lower social physique anxiety and higher self-esteem (Zartaloudi et al. 2023). Moreover, Pop (2016) reported in a cross-sectional study on female Romanian university students, that self-esteem and body dissatisfaction had a significant negative correlation. He also found a consistent, statistically significant correlation between body mass index and body dissatisfaction. Furthermore, Cheung (2007), based on the results of a path analysis, mentioned that students' general anxiety levels might be affected by their general state of anxiety and their self-esteem. Furthermore, a distorted view of person's body has been linked to low self-esteem in many researches (Croll, 2005). The previous studies show that 88% of adolescent girls feel negatively about their body image (Croll, 2005). In comparison to males, females are much more likely to think their size is too large (Caroll, 2005). Part of it is because they are exposed to thin models on television, magazines, internet and movies. Also, their appearance is the most important indication of self-worth (American Association of University Women, 1994). The results of Ata, et al.'s (2006) research showed that 61% of their sample were trying to lose weight.

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The influence of media and the importance of physical attraction can also cause anxiety. Benetti and Kambouropoulos (2006) studied the influence of trait resilience and trait anxiety on self-esteem with mediating role of positive and negative affect. They concluded that trait resilience and trait anxiety exert indirect effects on self-esteem by promoting increased positive and negative effect. Demir (2024) in his research showed that a significant negative relationship existed between life satisfaction and social appearance anxiety of individuals who had aesthetic procedures. Also, there was a weak correlation between social appearance anxiety and self-esteem.

Previous studies regarding gender differences (e.g. Mellor et al. (2010) showed that higher self-esteem was associated with lower body dissatisfaction, but there was no consistent relationship between these variables across time for age and gender. Women were more dissatisfied with their bodies than men; yet men placed greater importance on their appearance than women, and also reported high levels of body dissatisfaction. Moreover, Imani et al. (2020) found a significant difference between the applicants for cosmetic surgery and the non-applicants, for the variables of their study, including dissatisfaction with body image, anxiety and stress. Furthermore, Cai et al. (2021) investigated the roles of self-acceptance and self-esteem in the relationship between body image dissatisfaction and impulsive buying, and tested the moderation of gender on the relationships. Some of their results revealed that body image dissatisfaction positively associated with impulse buying; an indirect pathway from body image dissatisfaction to self-acceptance to self-esteem and to impulsive buying emerged; and the mediation path from self-acceptance to self-esteem was stronger for female than that for male.

In another study, Yildirm and Yildiz (2024) concluded that people who undergo aesthetic rhinoplasty have high social appearance anxiety and social media addiction, but low self-esteem. A negative correlation was found between self-esteem of case group compared to control group. Also, social appearance anxiety and social media addiction were higher in case group, compared to control group. The findings confirm the existence of a relationship between self-esteem and body image among adult men and women, whereby higher self-esteem was associated with lower body dissatisfaction (Mellor et al., 2010).

Based on the above researches and theories, this study investigated a model of relationship between body image dissatisfaction and self-esteem, through state anxiety, with gender as moderator, in participants attending an aesthetic clinic in Ahvaz, Iran. The previous research showed that there

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is the relationship between body image and self-esteem for adolescent girls (McCabe & Ricciaradelli, 2003). The females look about beauty is different from what the men believe. However, in Iran more research needs to be done. But in present study, in addition to using a new research method (a moderated mediation modeling), the study was conducted on all ages. Also, there is a need to know what other variables influence self-esteem of male and female participants that apply to aesthetic clinics, and are dissatisfied with their body image, and have negative outlook on their body. The present study investigated the effect of body image on self-esteem, indirectly by influencing state anxiety and moderation of gender.

Material and Methods

Participants

The participants were men and women of all ages who attended an aesthetic clinic in Ahvaz city. The sample selection was the convenient method and 55 adult men and women filled in the scales. 5 cases did not answer to all questions and were deleted from this study. The final sample size was 50 patients (24% men and 76% women), from 25 to 68 years old (Mean age = 39.86, SD = 10), who attended for aesthetic procedures, from November 2023 till March 2024, to one of Ahvaz clinics. The levels of education of participants were: 3 (6%) under high school diploma, 8 (16%) diploma, 8 (16%) associate degree, 21 (42%) bachelor's degree, 5 (10%) master's degree and 5 (10%) doctoral degree. All individuals who were involved in the study diligently fulfilled the necessary requirement of signing and submitting the document known as the consent form, thereby indicating their willingness to participate in the research project.

Procedures

Data were collected from patients who were attending for aesthetic procedures, from November 2023 till March 2024, in one of the Ahvaz clinics. Informed consent was obtained from all of the participants before data collection. Questionnaires were

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distributed in the clinic. After all the participants answered the questionnaires, they were collected. Three self-report instruments were used in this study which consisted of Rosenberg Self-Esteem Scale, Spielberger's State-Trait Anxiety Inventory (STAI-Y) and, Littleton et al. (2005) Body Image Concern Inventory. Also, some information related to the characteristics of the respondents (gender and the level of education), were collected.

Rosenberg Self-Esteem Scale

For measuring self-esteem, the 10-item Persian revision of the Rosenberg Self-Esteem Scale (Mirsadeghi, 2023) was used. Each item was rated on a scale from zero (agree) to 1 (disagree). Higher scores indicated higher self-esteem. A typical item was "I feel that I have a number of good qualities." In this study, Cronbach's alpha for self-esteem was 0.756.

State-Trait Anxiety Inventory (STAI-Y)

Spielberger et al. (1983) constructed the State-Trait Anxiety Inventory which is used to measure trait and state anxiety. In this research the author used Persian version of state anxiety part of this inventory. It has 20 items for assessing state anxiety. Participants responded on a 4-point Likert type scale, valuing from 1 (strongly disagree) to 4 (strongly agree), on 10 items of this inventory, and the other 10 items had reverse scaling. Typical items of this part are "I am worried" and "I feel calm". The higher the score, the higher the level of state anxiety. In this study, the Cronbach's alpha was 0.892.

Body Image Concern Inventory

The Body Image Concern Inventory (BICI) is a 19-item self-report measure that designed by Littleton et al. (2005) for measuring appearance concern. For each item, individuals indicate how often they have the described feeling or perform the

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described behavior on a 5-point Likert type scale, from 1 (never) to 5 (always). A typical item is "I spend a significant amount of time checking my appearance in the mirror". The higher the score, the higher the level of body image concern. Cronbach's alpha for the measure, in this study, was 0.918.

Results

All statistical analyses were done by using SPSS 26.0. The author calculated the descriptive statistics for all of variables. Pearson correlations were calculated to test the bivariate associations among body image dissatisfaction, stat anxiety and self-esteem. The raw scores were changed to z scores to standardize the scales. For moderated-mediation conceptual model, the author used model 14 of the PROCESS macro (http://www.afhayes.com, Hayes, 2013). Figures 1 shows the conceptual model.

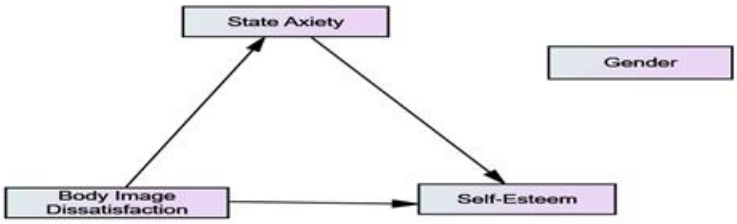


Figure 1. The Conceptual Model

The descriptive statistics and correlation matrix for all the variables were presented in table 1.

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Table 1. Descriptive statistics and correlations between variables of the study

Variables	Mean	SD	1	2	3
Body Image Dissatisfaction	39.54	10.55	-		
State Anxiety	44.88	9.35	0.712**	-	
Self-Esteem	8.45	1.67	-0.681**	-0.661**	-
Gender	1.24	0.43	-0.143	-0.175	0.127

Gender was dummy coded such that 1 = male and 2 = female
**p < 0.001

The results of Table 1 indicate a positive relationship between body image concern and state anxiety. Also, there were negative relationships of body image concern and state anxiety with self-esteem.

Testing Moderated Mediation Model

Before running the model, the author conducted the multi-collinearity diagnosis on the predictors. The results indicated that the tolerance between the predictors was less than 0.49 and the variance inflation factor (VIF) less than 2.028 which indicates no multi-collinearity between the predictor variables. The analysis results were presented in Table 2.

Table 2. Parameters of Moderated-Mediation Model

Variable	Model 1			Model 2		
	Outcome: State Anxiety			Outcome: Self-esteem		
	SE	β	t	SE	β	t
Gender	-	-	-	0.392	0.274	0.70
Body Image Dissatisfaction	0.09	0.631	7.026**	0.022	-0.063	-2.88**
State Anxiety	-	-	-	0.061	-0.202	-3.29**
Int-1				0.047	0.115	2.46**
R^2	0.51			0.58		
F	49.36**			15.71		

**p < 0.01

The analysis results were presented in Table 2. In Model 1 (outcome variable was state anxiety) the effects of body image dissatisfaction was tested on state anxiety. But in Model 2 (outcome variable was self-esteem) the effects of body image dissatisfaction, state anxiety, gender and interaction of state anxiety and gender on self-esteem were examined. Model 1 ($F = 49.36$, $R^2 = 0.51$, $p < 0.01$), indicates that body image dissatisfaction positively predicted state anxiety ($\beta = 0.631$, $p < 0.01$). The results supported this study. In Model 2 ($F = 15.71$, $R^2 = 0.58$, $p < 0.01$) the effects of gender on self-esteem was positive ($\beta = 0.274$, $p > 0.01$); the effects of body image dissatisfaction on self-esteem was negative ($\beta = -0.063$, $p < 0.01$); the effects of state anxiety on

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self-esteem was negative (β = -0.202, p < 0.01); and the interaction of state anxiety and gender on self-esteem was positive (β = 0.115, p < 0.01). Therefore, in Model 1 body image dissatisfaction positively predicted state anxiety. Also, in Model 2 body image dissatisfaction and state anxiety had negative relationship with self-esteem, but the interaction of state anxiety and gender positively predicted self-esteem. Moreover, gender did not predict self-esteem directly. Thus, the results supported the present model. In order to show clearly the interactive effect of gender and state anxiety on self-esteem Figure 2 was presented.

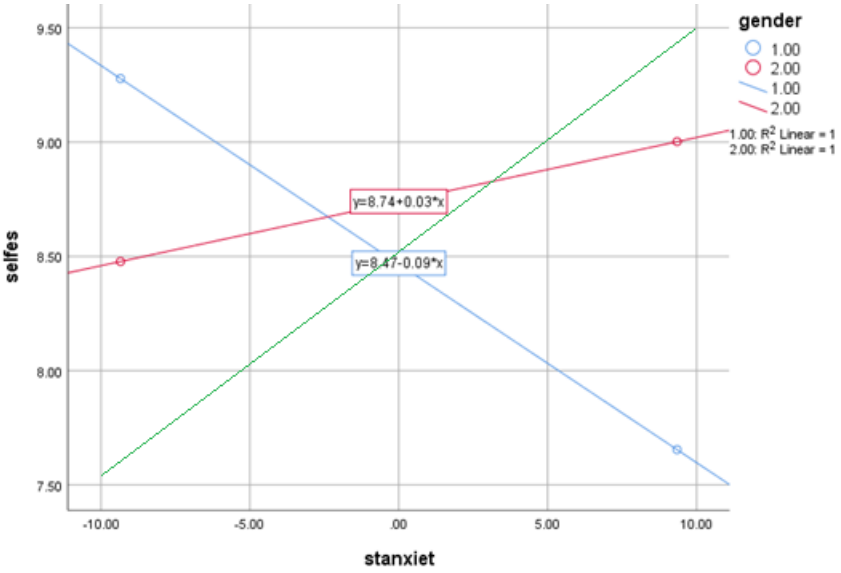


Figure 2. Gender as moderator of the relationship between state anxiety and self-esteem

Figure 2 indicates that the association of state anxiety and self-esteem for women was negative and stronger than for men (1 = female and 2 = male). The conditional indirect effects of body image dissatisfaction on self-esteem (through state anxiety) for women was -0.055 (BootLLCI = -0.089, BootULCI = -0.022) and for men was 0.018 (BootLLCI = -0.019, BootULCI = 0.054), which for women it does not take zero and is meaningful, but for men is not meaningful. Moreover, the index of moderated mediation (difference between conditional indirect effects) was 0.073 (BootLLCI = 0.027, BootULCI = 0.11) which did not take zero, which means that gender is a moderator, and the path is different in female and male patients.

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Discussion

The present study explores the relationship of body image dissatisfaction and self-esteem through state anxiety, as mediator, and gender as moderator. The results show that body image dissatisfaction has a direct and positive effect on state anxiety and an indirect effect, through the mediating role of state anxiety on self-esteem. On the other hand, state anxiety was negatively predicted self-esteem. Also, the moderating effect of gender, for the relationship between body image dissatisfaction and self-esteem, through state anxiety, was stronger and negative for women than for men.

Body image dissatisfaction and anxiety

The results of this study about body image dissatisfaction and anxiety shows a positive relationship is existed between body image dissatisfaction and state anxiety, which is consistent with the previous studies. Yildirim and Yildiz (2024) study shows that body image dissatisfaction and anxiety are positively correlated. Their observations revealed people who had undergone aesthetic rhinoplasty have social appearance anxiety and high self-esteem. Some researchers have pointed out that people with low self-acceptance are often accompanied by negative emotions such as depression, self-blame and self-hatred (Sun and Lu, 2017). Positive thoughts and perceptions towards body image contribute in making a positive self-esteem. Positive perception of body depends on person's satisfaction of body image and can increase sentiments, self-value, self-esteem and how much one likes oneself.

Also, Jones et al. (2022) showed that 121 cases of nose surgery for aesthetic purpose, showed social appearance anxiety. Cromley et al. (2012) found that adolescents with better body image satisfaction reported lower anxiety symptoms. The possible explanation for this result is that people who receive pressure from family, media, opposite sex, and friends, for having an ideal body leads them to change their beliefs about beauty and self-worth. Hagger et al. (2010) found that social physique anxiety has been positively related to body image dissatisfaction. Also, Cromley et al.'s (2012) study indicates adolescents with body image satisfaction reported lower anxiety symptoms. Negative evaluation of appearance can also result in the implementation of rejection and cause anxiety. This unhappiness with one's appearance and social evaluation may cause anxiety in people. Therefore, anxiety can be the results of unhappy body image. As self-esteem grows up through positive body image, unhappiness of body image can lower self-esteem.

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In other words, if one's body image is negative and unfavorable then it prompts distress and dissatisfaction and leads to a low level of self-esteem.

Body image and self-esteem

The results of this study shows that body image dissatisfaction negatively predicted self-esteem. Cai et al. (2021) pointed out that body image dissatisfaction has an effect on self-acceptance, which can have some effect on self-esteem. Consistent with this study results, their finding shows that self-acceptance positively predicted self-esteem. Xie et al.'s (2018) study, reported that body image dissatisfaction is closely related to self-acceptance which indicates that body image dissatisfaction negatively predicts self-acceptance. Moreover, Zartaloudi et al. (2023) results indicate global self-esteem score was associated with an increase in body-esteem score. Also, people who rated their appearance as being higher showed higher self-esteem. Pop (2016) reported that self-esteem is better correlated with subjective parameters (body image) than with objective and relatively stable measurements (body mass index). The possible explanation for the results is that body image satisfaction can prevent people from low self-esteem. On the other hand, when negative emotions are caused by unsatisfactory body image, the individual makes negative evaluation of himself/herself which in turn lowers the self-esteem. For these reasons, body image dissatisfaction may play a significant role in promoting self-esteem.

Anxiety and self-esteem

The results of this study show that state anxiety negatively predicts self-esteem. Consistent with this result some studies have pointed out that there is a significant negative relationship between social appearance anxiety and self-esteem (Demir, 2024). Choma (2010) revealed that there is a weak negative relationship between life satisfaction and self-esteem. Benetti and Kambouropoulos (2006) reported that trait resilience and trait anxiety exert indirect effects on self-esteem. Moreover, Sedikides et al. (2004) showed that trait anxiety can decrease self-esteem. The emotional model of self-esteem (Brown, 1993) holds that self-esteem is a kind of self-acceptance of emotions, which reflects an individual's love and acceptance of himself. Therefore, negative self-worth and low self-acceptance could have a negative impact on an individual's self-esteem. Some theories, also, emphasize that negative affect may cause depressive symptoms and poor self-esteem (Stice, 2001).

Gender

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The results of the present study shows that gender is a moderator between state anxiety and self-esteem. This finding is consistent with previous research that females are more concerned with their appearance and experience greater body dissatisfaction. Consistent with previous studies, the association of state anxiety and self-esteem for women was negative and stronger, than for men; meaning that the higher the state anxiety for women the lower their self-esteem will be. Furthermore, the conditional indirect effects of body image dissatisfaction on self-esteem for women was meaningful, which indicates that women's body image dissatisfaction has stronger effect on state anxiety which leads to lower self-esteem. Consistent with the present result, some previous studies (e.g. Cai et al., 2021) report that the predictive effect of self-acceptance on self-esteem is moderated by gender. Also, previous research reported that self-acceptance negatively correlate with negative emotions (Cunha & Pavia, 2012). Also, Zartaloudi et al. (2023), found that women reported higher social physique anxiety compared to men; because girls learned to be praised for their appearance and body image, therefore, appearance may be considered very important for them. In fact, the relationship between body image dissatisfaction and self-esteem does vary as a function of gender. As expected, the current study showed that gender was a moderator, had a negative correlation with body image dissatisfaction, and the strength of this relationship was stronger for females, comparing to men. Body image tends to represent a large portion of an individuals' self-concept; therefore, it is not surprising that self-esteem and body dissatisfaction are related.

Conclusions

In overall, the findings of the present study could be used by professionals working in the aesthetic clinics, cosmetic surgeons, psychologists and all training fields, in order to handle body image dissatisfaction and its effects on self-esteem, especially in females. They should implement some strategies to reduce dissatisfaction of self and body and increase self-esteem. This study contributes important knowledge to the field of mental health, by increasing some knowledge about some probable causes of low self-esteem and its relationship to body image dissatisfaction. These finding can also be used for prevention as well as intervention strategies in all ages, and with patients having body image dissatisfaction. The results can also make the health professionals aware and persuade them to have more sympathy with these patients. Due to the association between body dissatisfaction and low self-esteem, as well as the risk of developing anxiety, the

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findings may suggest that body image dissatisfaction is of concern among Iranian population, especially women. Taking together, women who attend to aesthetic clinics, comparing to men, are more dissatisfied with their body image, experience more state anxiety and have lower self-esteem. They have negative emotions and anxiety about their outlooks, which leads to low self-esteem. Furthermore, the results of this study are important for further research on low self-esteem, and exploring the great demands of cosmetic surgery and aesthetic procedures

Limitations and Recommendations

The use of self-report questionnaires is one of the limitations of the present study and might persuade people to answer based on social desirability. The study measured the relationship between variables in the model, therefore, causal associations cannot be drawn from these results. The number of men was less than the number of women in the period that data was collected. Moreover, some recommendations regarding the findings could be made. I suggest the future researchers, besides questionnaires, use clinical interviews too. Comparisons of young and older patients attending to aesthetic clinics and those receive cosmetic surgeries be considered.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

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