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Study on the mediator role of self-esteem in the relationship between female self-objectification and social physique anxiety

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Abstract:

BACKGROUND: Women's perception of body image plays an important role in their psychological health; self-objectification and social physique anxiety can affect self-esteem. The purpose of this study was to investigate the role of the mediator of self-esteem in the relationship between self-objectification and social physique anxiety in female students at Hakim Sabzevari University in Sabzevar.

MATERIALS AND METHOD: The method of this descriptive research is correlational. The statistical population of this study is all the female students of Sabzevar, Department of Humanities. Using Morgan's table, 291 subjects were selected as a sample. To collect data, Rosenberg's Self-Esteem Questionnaire, McKinley and Hyde's Self-Objectification Questionnaire, and Hart *et al.*, Social Physique Anxiety Questionnaire were used. After filling out the questionnaires, the data were analyzed using Statistical Package for the Social Sciences (SPSS) software version 24 and descriptive indexes were used. Also, for correlation, to test the research question, a suitable statistical test such as hierarchical regression was used.

RESULTS: The results of the analysis of statistical data showed that there is a negative and significant relationship between self-objectification and self-esteem. Also, there is a significant positive correlation between this variable and social physique anxiety. Also, using hierarchical regression, the role of mediating self-esteem was confirmed in the relationship between self-objectification and social physique anxiety.

CONCLUSION: Those who have a high score in self-objectification think of themselves as an object and are always concerned about evaluating others based on their body image, so if their body image is not approved by others, they will have a negative assessment of themselves that causes a decrease in their self-esteem followed by an increase in the social anxiety of the organs.

Keywords:

Self-esteem, self-objectification, social physique anxiety

Introduction

Today, women and girls are under constant pressure for social acceptance to conceive of the objects of others in their inner self and imagine themselves as an object.^[1] The theory of self-objectification as the explanation for body image dissatisfaction and the importance of appearances for women were first put

forward by Fredrickson and Roberts. They claimed that women and girls were learning socially based criteria to evaluate themselves based on their physical appearance as criteria that others use as judgments. Self-objectification occurs when people treat themselves as objects that should be viewed and evaluated based on their appearance. The literature has largely clarified the relationship between objectification and destructive consequences in men and

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women. Sexualization and objectification undermine a person's self-confidence and peace of mind, leading to emotional and self-image problems, such as shame and anxiety.^[2] According to this theory, some of the sociocultural factors lead women to self-objectification. The culture of self-objectification encourages women and girls to consider themselves as an object that men always evaluate sexually.^[3]

Based on this theory, some of the social-cultural factors that lead women to the object-oriented view are the social ideals that pay attention to the womanly apparent, and the tendency that a woman is considered an object has negative consequences. One of its consequences is an obsession with their appearance and this focus may be problematic; for example, Fredrickson and Roberts found that self-objectification is associated with physical and mental health problems such as physical dissatisfaction, low self-esteem, depression, anxiety, and eating disorder.^[4] The experience of the behavior of a part of society and men with women who viewed their body as sexual object and a tool for use and promotion makes this group of women internalize the sexual object-oriented sexuality of others and consider themselves as sexual object.^[5] This sexual look can lead to a form of self-awareness, which is characterized by the appearance of the body. Such women see their bodies as sexual object for the pleasure of men. This does not apply to all women, and all women do not experience sexual self-objectification to the same extent. The emotion that a person has of herself reflects the way that others look or act sexually at her [Fredrickson *et al.* 1998].

One of the important aspects of the formation of identity and self-esteem is physical appearance and physical image.^[6] One of the reasons for low self-esteem is self-perception based on external look; according to the theory of self-objectiveness, individuals who evaluate their bodies from an external perspective have mental health problems, such as lower self-esteem.^[7] In a study, Perrotta examined the relationship between self-objectiveness, self-esteem, and depression. The results of their study showed that the individuals who experienced more self-objectiveness reported lower self-esteem and more depression.^[8] In another study, which utilized the scale of consciousness of self-objectiveness, researchers have reported a significant negative relationship between self-monitoring and self-esteem.^[9]

Self-esteem is how we value and understand ourselves. It is based on our own beliefs about ourselves, which are sometimes really difficult to change. Your self-esteem can affect whether you love and value yourself as a person.^[10] Self-esteem is one of the determinants of human behavior. In fact, the perception and judgment

of individuals of themselves determine how they deal with different issues. Self-esteem is a concept that relates to a person's sense of value and his affirmation of himself. People can also use self-esteem to deal with adverse life events to reduce their effects.^[11] According to Uruthirapathy and Dyke, self-esteem can be thought of as a set of thoughts, feelings, emotions, and experiences that shape the process of social life.^[12] Self-esteem is one of the factors that affect one's compatibility in society. In fact, the perception and judgment of individuals of themselves determine how they deal with different issues. A person who has low self-esteem and does not value respects himself. She may have become isolated, angry, or aggressive and have antisocial behavior.^[13] According to the researchers, self-acceptance is one of the major variables in mental health. High self-esteem is associated with lower levels of anxiety.^[14]

Also, low levels of self-esteem are a powerful factor in creating a negative self-evaluation and, consequently, creating social anxiety.^[15] People with high levels of social anxiety reported a high negative self-perception. For example, people with a high level of social anxiety were socially less self-accepted and perceived lower levels of self-esteem than their counterparts who were socially less anxious.^[16] In affirmation of the notion that people with social anxiety have a worse negative view of themselves than non-anxious people, some researchers have shown that social anxiety is associated with lower grades of general self-esteem.^[17] In another study on students, the highest prevalence of social anxiety was among students with low self-esteem and the lowest prevalence of social anxiety was among students with high self-esteem.^[18]

As mentioned, anxiety is one of the implications associated with self-objectiveness. According to Hart *et al.*, anxiety that individuals experience as a result of perceived observation or assessment of their body in a social setting is called social anxiety of the organs. This kind of anxiety is a reflection of people's tendency to get angry or worried while being evaluated by others.^[19] The anxiety resulting from evaluating each individual's body in social activities is important because the human body is the first part of his personality that is evident in social encounters with others, and it is different from this point of view with other parts of their personality, because they can be easily and simply compared with other people through observation. Thus, the body's appearance is very important in social interactions. Studies have confirmed the role of the body's imagination in predicting the health of dissatisfied women of their own weight. The social anxiety of the organs is related to concepts such as physical image and physical thinking. People with more social physique anxiety tend to experience more stress

and more negative emotions about their bodies than those with fewer cases of this type of anxiety.^[20]

Considering the increasing tool-oriented view toward women and the impact of this look and its implications, as well as the important role of self-esteem in women as one of the important indicators for coping with this view and acceptance of the goal itself, this study examined the mediating role of self-esteem in the relationship between self-objectiveness and social physique anxiety among female students.

Materials and Methods

Study Design and Setting

This study is considered a descriptive study, and therefore, an attempt was made to explain the relationship between research variables through statistical methods. The method of this descriptive research is correlational.

Study participants and sampling

The statistical population of this study is all the 291 female students of Hakim Sabzevari University, Department of Humanities, using Morgan's table.

Data collection tool and technique

Research instruments include the following: the Objectified Body Consciousness Scale: According to McKinley and Hyde, the Objectified Body Consciousness Scale was used as a measure of the physical object's structure. This scale consists of 24 substances and three components of body monitoring, physical shame, and body appearance control.^[21] The body controlling component focuses on monitoring the appearance and taking an external look. The component of physical shame evaluates the feeling of shame in relation to the body, and the component of controlling the appearance of the body measures the belief of the individual in relation to his appearance. The questions are scored based on a seven-level scale from totally agreeable to completely disagree. The high score indicates a high degree of self-objectiveness on the whole scale and its components. The validity of this test has been reported using Cronbach's alpha coefficient for physical monitoring, physical shame, and body appearance control as 76.0, 0.70, and 0.68, respectively, and the total scale is 0.75. In this study, the reliability of this test was estimated by Cronbach's alpha [74%].

Social Physique Anxiety Scale: This is a 12-item questionnaire by Hart *et al.*, which is based on the five-point Likert scale. In any item, a score between 1 (not at all) and 5 (severely) is given, and items 1, 8, and 11 are scored in reverse. A score of 12 shows the minimum anxiety, and a score of 60 is the maximum anxiety.^[22] The internal consistency and validity of the structure of

this scale have already been confirmed by Wong *et al.*,^[23] and Cronbach's alpha is estimated at 83%. The Persian version of the tool has been evaluated by Reza Soltani *et al.*,^[24] among youth. In this study, internal consistency with Cronbach's alpha was reported for a female gender of 85% and a male gender of 81%.

In this study, the mean score of social physique anxiety was calculated and the subjects with a score higher than the average were defined as students with high social physique anxiety and the subjects with a score lower than the mean as students with lower social physique anxiety.

Rosenberg Self-Esteem Scale: The Rosenberg Self-Esteem Scale was used to measure the self-esteem of the subjects. This well-known and standard tool is provided by Rosenberg and includes ten Likert items of four degrees from rarely to ever.^[25] For making this scale, Rosenberg performed it among 5024 high school students in the state of New York and got the reliability coefficient and validity with a score of 82% and 77%, respectively.^[26]

After filling out the questionnaires by the students, the data were analyzed using the 24th version of software and descriptive indexes (mean, median, standard deviation, skewness, and kurtosis) were used. Also, for correlation, to test the research question, a suitable statistical test such as hierarchical regression was used.

Ethical consideration

The proposal for this research has been reviewed by the ethics committee at Hakim Sabzevari University and the code of ethics has been issued for it, so all ethical matters including the consent of the participants and maintaining the confidentiality of information have been taken into consideration.

Results

According to Table 1, the mean of self-objectiveness, social physique anxiety, and self-esteem variables is 80.03, 88.95, and 86.96, respectively. Also, the standard deviation of all the studied variables is equal to one, and about the absolute value of the dispersion criteria of their skewness and kurtosis, it can be said that all the variables having distribution are calculated to be less than one. Thus, the information obtained from Table 1 is normal.

Inferential

According to Table 2, there is a significant negative relationship between self-objectification and self-esteem. Also, there is a significant positive correlation between this variable and social physique anxiety.

The determination coefficient of R^2 as you can see in Table 3 indicates to what percentage the variations of

Table 1: Descriptive statistics of self-objectification, self-esteem, and social anxiety of the organ variables

Variable statistics	Mean	Median	SD	Skewness	Standard error	Kurtosis	Standard error of kurtosis
Self-objectiveness	03.80	04.80	1	-2.0	146.0	172.0	291.0
Social physique anxiety	95.88	94.88	1	-033.0	146.0	-0467.0	291.0
Self-esteem	96.68	93.68	1	089.0	146.0	-08.0	291.0

Table 2: Correlation of self-objectification with self-esteem and social physique anxiety

Variables	Self-esteem	Social physique anxiety
Self-objectification	-34.0	29.0

Table 3: Summary of models of mediator role of self-esteem in the relationship between female self-objectification and social physique anxiety

Model	R	R ²	R ² modified	Estimated error
1	818.0	669.0	668.0	58.0
2	928.0	862.0	861.0	38.0
3	724.0	525.0	523.0	7.0

the dependent variable are explained by the independent variable “or, in other words, the determination coefficient indicates that” how much of the dependent variable variations are affected by the independent variable, and the remaining variations of the dependent variable are related to other factors. R² is not an appropriate criterion for explaining the effect of the independent variable on the dependent variable, since with increasing observations and the increase in independent variables R² increases, which is a false increase. To resolve this issue, a modified R² is required. The modified R² accommodates the R² value with respect to the added independent variables to the regression line and according to the new y-intercept. The smaller the difference between the modified R² and R², it can be concluded that the independent variables added to the model are correctly selected. According to the table, the difference between the modified R² and R² in the three regression models is negligible. Also, model 1, model 2, and model 3, respectively, express 66%, 86%, and 52% of their dependent variable variations by the independent variable. The nearer the R² to 1, the better its regression model. According to the above results, we can say that the models are correctly fitted. Also, the overall explanatory power of regression can be measured by analysis of variance. Table 3 shows the total squared regression of the information on the amount of variation of the dependent variable that is determined as a result of the model, while the total squares of the remaining information indicate the amount of variation of the dependent variable that is out of the model, whatever the sum of the remaining squares is smaller than the sum of the squares of the regression, indicating the high explainability power of the model in explaining the dependent variable variations. To test the F-statistic or the analysis of variance, we must compare the calculated F with the critical value F obtained from the distribution table F. In Table 3, the analysis of variance will address this issue.

The value of the significance level of the F-test for all three table models is less than 0.01. Therefore, it can be concluded that the independent variable expresses well the variation in the dependent variable in the above models. The next steps, after verifying the model, are to estimate and test the hypothesis of regression coefficients.

Table 4 shows the estimation of the regression coefficient of model 1 or the full effect, which is also referred to as the direct effect. The regression coefficient of the self-objectiveness variable [X] with the value of the test statistic is 23.608, and the significance level is less than 0.01. In fact, the total or c-value with the estimated value of 0.823 is significant. To investigate the existence of a mediator variable in the model, first, the effect of the whole should be significant, so, considering the results, we will consider the mediation of the self-esteem variable.

Tables 5 and 6 show the estimation of the regression coefficient of models 2 and 3, which is in fact the same model with the effect of self-esteem mediation [M]. As shown in Table 5, the regression coefficient of self-esteem and self-objectiveness is estimated at b = 0.359 and d = 0.635, respectively. Also, their t-values are 10.953 and 19.565, respectively, and both variables are significant according to their significance level.

Regarding the results of Table 7, the regression coefficient of the self-objectiveness variable with the value of a = 0.73 and the t-test, 17.457 in model 3 is significant. In fact, the effect of the self-objectiveness variable on self-esteem is equal to 0.73, which is a justifiable measure for examining the effect of indirect self-objectiveness on social anxiety of organs. The effect of ab is a direct effect, and d is referred to as a direct effect by the presence of a mediator variable. As shown in the tables, the direct effect of self-objectiveness on social anxiety decreases with the presence of self-esteem mediator variable.

Discussion

The purpose of this study was to investigate the relationship between self-objectiveness and social anxiety with the mediating role of self-esteem among female students of Hakim Sabzevari University. The results of the correlation coefficient showed that there is a significant negative relationship between self-objectiveness and its components with self-esteem.

Table 4: Analysis of variance

	Model	Sum of square	Degree of freedom	Average of squares	F-statistics	Significant level	Confirm or reject the model
1	Regression	008.188	1	008.188	344.557	<01.0	Confirm
	Residual	103.93	276	337.0			
	Total	111.281	277				
2	Regression	187.242	2	094.121	528.855	<01.0	Confirm
	Residual	924.38	275	142.0			
	Total	111.281	277				
3	Regression	137.148	1	137.148	742.304	<01.0	Confirm
	Residual	165.134	276	486.0			
	Total	302.282	277				

Table 5: Estimation of regression coefficient

Model	Non-standardized coefficients		Standardized coefficients		
	Coefficients	Standard error	Coefficients	T-statistics	Significant level
Y-intercept	104.23	79.2		282.8	<01.0
Self-objectification	823. 0	035.0	818.0	608.23	<01.0
For model:					$Y=a_1+Cx+e_1$

Table 6: Estimation of regression coefficient

Model	Non-standardized coefficients		Standardized coefficients		
	Coefficients	Standard error	Coefficients	T-statistics	Significant level
Y-intercept	16.425	1.839		8.932	<01.0
Self-objectification	0.359	0.033	0.357	10.953	<01.0
Self-esteem	0.635	0.032	0.637	19.565	<01.0
For model:					$Y=a_2+dX+bM+e_2$

Table 7: Estimation of regression coefficient

Model	Non-standardized coefficients		Standardized coefficients		
	Coefficients	Standard error	Coefficients	T-statistics	Significant level
Y-intercept	10.51	3.349		3.138	<01.0
Self-objectification	0.73	0.042	0.724	17.457	<01.0
For model:					$Y=a_3+aX+e_3$

Based on the theory of self-objectification, girls and women are likely to evaluate and consider themselves to be objects as a result of accepting external pressures.^[26] The objectiveness excites this message to the girls and the women that their value depends on their beauty and lust. In fact, women are rewarded when they approach the ideal of beauty image in their culture, and this privilege is given to their attractiveness both in its initial perspective and in its continuity.^[27]

Body image is not created by itself. Culture, family, and friends all convey positive and negative messages about the body. The media, peers, and family members can all influence a person’s body image. They can encourage people even from an early age that there is an ideal body and that one should achieve it; of course, this ideal body is unreal and unnatural.^[28] The fashion industry also sets an inappropriate example when it comes to using lightweight models to showcase its products. Exposure to small daily attacks at work and in the community can make people feel inadequate or deficient.^[29]

According to the findings of the research, it can be said that those who have higher self-objectiveness have less self-esteem. The results of the finding that self-objectification leads to a negative attitude of the body and the negative attitude of the body is related to self-esteem confirm the theory of John. According to this theory, people who evaluate themselves from an external perspective experience mental health problems such as low self-esteem and anxiety and depression.^[30]

Also, according to the results of the correlation coefficient between self-objectiveness and social anxiety of the organs, there is a significant positive relationship. Continuous monitoring causes mental disorders such as depression, eating disorders, alcohol, nicotine, substance, abuse, and anxiety due to physical shame.^[31] Various people have different perceptions of their bodies. Some people love their bodies, and some of them do not. According to the theory of objectiveness, those who are self-objectification think of themselves as an object, and the image and the appearance of the body are important

to them. In addition, most of these people are worried about how their body looks to others. So, one of the concerns of these people about their bodies is in the community, which is called social anxiety of the organs. Social physique anxiety is anxiety that people perceive when they think other people are evaluating their organs negatively. One might think that others would rate him as very fat, lean, or heavy.

The results confirm the hypothesis that self-esteem predicts social anxiety of the organs. Numerous studies have reported the relationship between social anxiety of the organs and self-esteem, and in some studies, self-esteem has been identified as a predictor of social physique anxiety.^[32] For example, Murad found a significant relationship between social anxiety, body image satisfaction, and self-esteem.^[16] Wang concluded that self-esteem is one of the best predictors of social physique anxiety in adolescent swimmers with physical disabilities.^[33] Also, according to Russell's (2009) findings, self-esteem significantly predicts social anxiety of the organs.^[34] Scientific sources acknowledge the growth of self-esteem in social conditions and confrontation with others. Davison and McCabe also confirmed the relationship between body social anxiety and self-esteem.^[32]

In low self-esteem, the gap between the true and the ideal itself is active and the low self-esteem is associated with anxiety, incompatibility, mistreatment, prejudice, pessimism, and physical disorientation. So, self-esteem is a psychosocial construct. It is a kind of self-evaluation in interacting with others. Also, based on this explanation, it can be expected that by reducing levels of self-esteem, social physique anxiety and prejudice about your body will increase.^[35] Gaziel mentioned negative self-assessment and negative evaluation by others as two predictors of students' social phobia. As it was said, based on the theory of self-objectiveness, individuals who evaluate their body from an external perspective have mental health problems, such as lower self-esteem, and worry about how their body looks to others.^[36]

Conclusion

Overall, it can be concluded that self-objectiveness in women makes them think of themselves as objects, and for their assessment rely solely on the appearance of the body, and the confirmation of this appearance from the point of view of society and others, and they constantly compare themselves with the standards of body appeals accepted in the culture, society, and media. This constant assessment makes women in the community experience anxiety because they are always concerned about how others evaluate their bodies. Consequently, if they do not meet these standards or they do not receive the approval

of others, they will have negative self-esteem. Because her body shape does not meet the standards or, in her opinion, is not endorsed by others or, in other words, others have a negative evaluation of her organs, they experience a type of social anxiety called social anxiety of the organs that this social anxiety can reduce the effective presence and participation of women in society.

Limitation and recommendation

The researchers tried to moderate the atmosphere so that the participants could safely answer the questionnaires, but since topics related to sex are considered taboo in our culture, it is possible that cultural biases were included in the answers to the questions.

It is suggested that topics related to self-esteem in the psychological and sexual health of women and girls should be given more attention.

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Conflicts of interest

There are no conflicts of interest.

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