

Prediction of Body Image Dissatisfaction from Self-esteem, Thin-ideal Internalization and Appearance-related Social Comparison

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Abstract

Introduction: The present study has aimed to demonstrate the relationship between body image dissatisfaction and three variables of self-esteem as a psychological factor along with thin-ideal internalization and appearance-related social comparison as psychosocial factors.

Methods: To conduct this study, 477 Tehran high-school students were recruited by a cluster sampling method. Afterwards, they filled out the Rosenberg Self-esteem Scale, Appearance Evaluation Subscale, Physical Appearance Comparison Scale as well as Sociocultural Attitudes towards Appearance Questionnaire-4. Finally, the collected data were analyzed using the Pearson's correlation coefficient together with the stepwise regression.

Results: Findings were indicative of a direct correlation between body image dissatisfaction and variables of thin-ideal internalization as well as appearance-related social comparisons. Meanwhile, there was a negative correlation between self-esteem and body image dissatisfaction. In addition, self-esteem could better work in assessing body image dissatisfaction. Because, it explains 19% of the variance thereof.

Conclusion: According to the results, it can be concluded that self-esteem plays a central role in predicting body image dissatisfaction. Therefore, health professionals should place a value on such a role while using preventive measures or interventions.

Keywords: Dissatisfaction at Body, Thin-ideal Internalization, Appearance-related Social Comparison, Self-esteem

Article History: Received: 2 Jul 2015; Revised: 25 Sep 2015; Accepted: 19 Oct 2015

Cite this article as: Shahyad S, Pakdaman S, Shokri O. Prediction of body image dissatisfaction from self-esteem, thin-ideal internalization and appearance-related social comparison. Int J Travel Med Glob Health. 2015; 3 (2):65-9.

1. Introduction

Body image is the representation of the personal feeling about one's outer appearance which encompasses physical and perceptual dimensions [1]. The key elements in body image include evaluation (body dissatisfaction), investment (referring to the importance that individuals place on their physical appearance) and emotions [2]. Appearance constitutes an important part of the individual's identity and in social situations is the first characteristic that comes into view. Studies also show that body image and attractiveness have greater importance for women and adolescents than other sections of a society [3]. Over the last past decades, a thin body has been promoted as the standard of beauty and success in both developed and developing countries. Failure to reach an ideal body characterized as being long and thin, results in body image dissatisfaction among young women and adolescents [4].

Body image dissatisfaction is recognized as negative thoughts and feelings about the weight and body shape [5]. Body image dissatisfaction could bring about physical and psychological problems [6]. There are also researches which link body image dissatisfaction with smoking, drinking [7], obsession and social anxiety [8], sensitivity in interpersonal communications, obsessive-compulsive behavior [9] and eating disorders [10]. Given the wide range of problems that originate from body image dissatisfaction, scholars turned their attention towards identifying the factors which give rise

to women's body image dissatisfaction. A number of studies suggest that there is a negative correlation between self-esteem and body image dissatisfaction [11-13].

Self-esteem is a topic, extensively investigated by the researchers of personality psychology. Actually, it points to a person's attitude towards oneself or to the evaluation of oneself which may be positive or negative [14]. Low self-esteem means that a person suffers from poor self-worth. Studies also show that one-third to one-fourth of self-esteem relates to the feeling that a person has about his/her own physique. If an individual dislikes his/her body, he/she could hardly like the person residing there either [15]. Furnham, Badmin and Sneade [16] identified low self-esteem as a risk factor for body image dissatisfaction and hold that raising self-esteem could diminish body image dissatisfaction. In general, low self-esteem correlates with several mental outcomes like poor body image and body image dissatisfaction [17-19], motivation for weight-loss [20, 21] and concern for weight and body shape among university students [22, 23].

From the factors that contribute to body dissatisfaction, the most influential is internalization of societal ideals of attractiveness [24, 25]. Internalization is a process wherein the standards of a society on a variety of issues like body shape, are adopted as personal codes, e.g. thin-ideal for women or hyper-muscularity for men [26, 27]. If not impossible, it is difficult for most women, to achieve the thin-ideal. As a re-

sult, once those buying into thin-ideal fail to make themselves over in the image of models, they experience negative feelings about their figure [28].

There are several prevailing postulates that establish a causal relationship between internalization and concerns about body image as well as related disorders. For instance, three sociocultural approaches to eating pathology, i.e. Stice's dual-pathway model, the tripartite influence model of Thompson et al, plus the objectification theory, all suggest that internalization have a direct impact on the construct of body image [29-32]. Furthermore, two decades of experimental and observational study, endorses the idea that internalization plays the key role in the construction of women's body image [24, 25].

Another formative factor that contributes to body dissatisfaction is social comparison [33]. Social comparison is a process in which, an individual thinks of his/herself in comparison to others in order to evaluate their own opinions, abilities and social status [34]. According to the social comparison theory, people are more likely to choose target comparison that is similar to themselves as for physical and social attributes. Hence, the target may come from peer groups, family or friends. This process is true about body image too. In fact, social comparison and cultural standards are scales that a person evaluates themselves thereby. Meta analyses have revealed that when women compare themselves with thinner females, their body dissatisfaction increases [35, 36]. As women make social comparisons, they certainly compare their appearances together. These comparisons almost revolve around weight, size, body shape, lower torso or overall physical attractiveness more often. Generally, such studies indicate that appearance-related comparisons have a negative effect on body satisfaction [34].

The present research aimed to study the correlation between body image dissatisfaction and the variables of self-esteem, thin-ideal internalization and appearance-related social comparison as psychological and psychosocial factors respectively. Meanwhile, analyses were done to determine the percentage each variable could explain about body image dissatisfaction.

2. Methods

This research falls into a correlational study design. Statistical universe comprised the entire female students of high-schools scattered throughout Tehran in the academic year of 2014-2015. The sample population consisted of 477 high-school students who were selected by the Multi-stage Cluster Sampling method. On this account, Tehran was divided into five clusters; then, three sampling units of districts (1 from the northern part, 18 from the southern part, 6 from the central part, 8 from the eastern part and 9 from the western part of Tehran), girls' high schools and classes were randomly selected in stages, so as to recruit the sample population. Required permission was obtained from the Research Division and Committee of Ethics of the Shahid Beheshti University

as well as the Ministry of Education. Following the permission, researchers went to the selected high-schools and distributed the questionnaires among the students with prior consent of relevant authorities, viz. high-school principals and teachers. Instruments that were employed in order to collect data are mentioned below. The collected data were analyzed using measures of descriptive statistics (mean and standard deviation) along with techniques of inferential statistics (Pearson's correlation coefficient and stepwise regression) by SPSS version 18.

2.1. Sociocultural Attitudes toward Appearance Questionnaire-4 (SATAQ-4)

This is an inventory including 22 items which measure the impact of sociocultural dispositions on appearance ideals. It includes 5 subscales which are: the subscale of Internalization of Thin/Low Body Fat which came into use in order to evaluate the variable of thin-ideal internalization in the sample population. The subscale consisted of 5 items in a format of five-level Likert-type rating, from definitely disagree [1] to definitely agree [5]. The subscale was first translated into Persian and then rendered back into English. After on three experts were asked to evaluate the version which had been rendered into original language. After the experts' assessment, researchers carried out a pilot study for determining the validity of the subscale. Cronbach's alpha thereof was estimated to be 0.85 in this study. It is necessary to explain that a considerable body of experimental evidence has confirmed the technical aspects of this subscale [41, 42].

2.2. Multidimensional Body-Self Relations Questionnaire (MBSRQ)

This is an inventory consisting of 46 items which are categorized into 6 subscales. Among those categories, the subscale of Appearance Evaluation was employed to assess body dissatisfaction. This subscale is actually comprised of 7 items in a five-level Likert-type rating scale, from definitely disagree [1] to definitely agree [5]. The mean scores which were achieved by respondents interpreted in the same way that Poloskov and Tracey [43] did in their study. It is said that, the more respondents score in the questionnaire, the greater body dissatisfaction. Besides, Rahati [44] through her research evaluated the validity and reliability of the MBSRQ. The results of evaluation confirmed the validity and reliability of the questionnaire to a great extent. Cronbach's alpha of the subscale was calculated to be 0.71 in this study. Item 1 was dismissed thanks to some cultural constraints.

2.3. Physical Appearance Comparison Scale

This questionnaire is a five item Likert-type scale instrument that has an acceptable reliability and validity for body image assessment [37]. This scale assesses the tendency of one's body comparison with others. Answers were scored from never (0) to always [5]. The internal consistency was assessed by the Cronbach's alpha coefficient with an alpha level of 0.84. In an item-scale correlation, we realized that the exclusion of either of the items 1, 2, 3, or 5 would reduce the alpha level. However, the exclusion of item 4 resulted in an increase

from 0.59 to 0.75. In addition, the correlation between item 4 and the scale (after correction for overlapping) was not significant. Therefore, it seemed that item 4 could be excluded. For final checking, factor analysis was done and results showed that item 4 should be put in a separate category. Such results were achieved in other researches as well [38, 39]. Therefore, final analysis of PACS was done by 4 items (1, 2, 3, and 5) and it was considered as PACS4. The validity of this questionnaire was acceptable in Persian.

2.4. Rosenberg Self-Esteem Scale

To evaluate self-esteem, the Rosenberg Self-Esteem Scale (RSES) was applied. This questionnaire includes ten items of global statements and is scored from 1 (strongly disagree) to 4 (strongly agree). Negative items are scored negatively. Psychometric properties of this questionnaire were acceptable in Persian [40]. Cronbach's alpha thereof was estimated to be 0.8 in this study.

3. Results

Table 1 indicates the frequency distribution of respondents in terms of districts and educational grades. Table 2 shows the descriptive measures used for analyzing data. As this table shows, the mean scores of predictive variables of self-esteem, thin-ideal internalization and appearance-related social comparison are 3.4, 1.99 and 2.88 respectively. The mean score of body dissatisfaction as an independent variable

came to 2.2 as well. The results of the correlation matrix suggests that the relations between body dissatisfaction and the variables of thin-ideal internalization ($p < 0.001$) and appearance-related social comparison ($p < 0.000$) were significant in a positive direction. The correlation between body dissatisfaction and self-esteem ($p < 0.000$) was also significant, but in a negative direction (Table 3).

To measure the percentage that each variable could explain about the variance of body dissatisfaction, the stepwise regression method was used. Findings indicated that the most efficient variable in predicting body dissatisfaction was self-esteem. The variables of thin-ideal internalization and appearance-related social comparison was excluded from the regression equation. According to the results, the observed F was also significant ($p < 0.000$) and the variable of self-esteem could account for the variance of body dissatisfaction up to 19% (Table 4).

4. Discussion

Findings of the present study has demonstrated that self-esteem significantly correlates with body dissatisfaction ($p < 0.000$), but in a negative direction. In fact, these two variables had an inverse relationship which is consistent with the results of Richardson, Paxston and Thomson [45]. The findings of the present research also correspond with the results of studies by Gleason et al, [18], Lowry et al, [46] as well as Furnham, Badmin and Sneade [16].

Table 1. Frequency distribution in terms of districts and education levels

School	District	Quantity	Educational grade	Quantity
Public	1	108	First grade	246
	6	73		
	8	100	Second grade	135
	9	101		
	18	95	Third grade	96

As table 1 sets out, 246 students were in first grade, 135 students were in second grade, 96 students were in third grade

Table 2. Mean and standard deviation of the research variables

Variable	Mean	Standard deviation
Thin-ideal internalization	3.4	1.13
Appearance-related social comparison	2.88	1.17
Self-esteem	1.99	0.54
Body dissatisfaction	2.2	0.78

As table 2 sets out, the mean scores of the predictive variables of self-esteem, thin-ideal internalization and appearance-related social comparison are 3.4, 1.99 and 2.88 respectively. The mean score of body dissatisfaction as an independent variable came to 2.2 as well

Table 3. Correlation matrix of body dissatisfaction with variables of thin-ideal internalization, appearance-related social comparison and self-esteem

Variable	Body dissatisfaction	Significance level
Thin-ideal internalization	0.15**	0.001
Appearance-related social comparison	0.18**	0.000
Self-esteem	-0.44**	0.000

* $P < 0.05$ ** $p < 0.01$

As table 3 sets out, the relations between body dissatisfaction and the thin-ideal internalization ($p < 0.001$) and the appearance-related social comparison ($p < 0.000$) variables were significant in a positive direction. The correlation between body dissatisfaction and self-esteem ($p < 0.000$) was also significant, but in a negative direction.

Table 4. Summary of the results of stepwise regression for the prediction of body dissatisfaction

Variable	R	R ²	F (p)	β	t (p)
Self-esteem	0.44	0.19	112,747 (0.000)	-0.44	-10.62 (0.000)

As table 4 sets out, the observed F was significant ($p < 0.000$) and the self-esteem variable could account for the variance of body dissatisfaction up to 19%.

To explain these findings, it is probable that adolescents with poor self-esteem on one hand and high level of self-consciousness on the other, certainly incline towards self-criticism and consequently experience greater body dissatisfaction and further eating disturbances [47]. In addition, the results showed that appearance-related social comparison had a positive correlation ($p < 0.000$) with body dissatisfaction. In other words, if appearance-related social comparison increases, body dissatisfaction will grow as a result. This conclusion matches up with the findings of Bailey and Ricciardelli [35] as well as Myers and Crowther [36]. Possible explanation for such a relationship could be that social comparison and attention to cultural standards emerge as measures whereby people evaluate their bodies. There is substantial evidence showing that pressure on women to achieve a thin-ideal body, mostly results from comparisons they make between their figure and the ideal female body of their perception [34]. Generally speaking, an ideal female body which the media promote is thinner than the average woman. This is why comparisons may lead to a sense of guilt accompanied by body dissatisfaction. [48-50]. Moreover, the results suggested that thin-ideal internalization had a significant correlation ($p < 0.001$) with body dissatisfaction in a positive direction. It means when thin-as-ideal is more internalized by women, the level of body dissatisfaction will increase. This conclusion is consistent with the findings of Vartanian [28] as well as Nouri, Hill and Orrell-Valente [51]. It is also compatible with the findings of Cafri et al, [24] and Stice [52]. A plausible reason for this conclusion is because thin-ideal internalization makes people set high standards which are unlikely to meet. As a result, differences between the current figure and the ideal body shape leads to people's body dissatisfaction as well as other mental disorders.

According to the results of stepwise regression, self-esteem is the most efficient variable in predicting body dissatisfaction. In fact, this is the advantage that distinguishes the present study from the others mentioned above. Self-esteem plays a supporting role in addressing challenges of life and promotes people's resilience in the face of difficulties. A human beings, whether a child, an adolescent or a mature adult who has a sense of self-assurance, completely believe in their abilities and also know that he/she is agreeable. Additionally, a self-assured person expresses optimism and does not yield to social standards which are irrational. It is worth saying that in the vocabulary of self-confident people, success does not essentially mean an ideal appearance [15].

5. Conclusion

Among the advantages of this study, giving importance to personal differences can be mentioned. In fact, contrasts between people that predispose them to body dissatisfaction, are now seen as measures thereby alleviating symptoms of eating disorders. Personal differences not only broaden our knowledge of body image as well as eating disturbances, but

also have implications for assessment, prevention, intervention or any other clinical purposes. For instance, Stice and Shaw [53] came to know that when targeting preventive measures on vulnerable or at-high-risk groups, it brought them with more results of interest. Thus, identification of risk factors through differences can be useful in selecting individuals who benefit from preventive measures to maximum extents. From a preventive point of view, these risk factors could be beneficial to reducing the symptoms of body image disturbances or eating disorders.

One of the constraints that was faced while conducting this study was the sample population. In this study, the entire respondents were female high-school students. For this reason, when generalizing the results of the current study to other societal sections, it is best to err on the side of caution. It is also recommended to conduct further research on a diverse sample population to make firmer decisions.

Another constraint was the correlational study design which thrived in the current study. On this account, causal inferences cannot be drawn. However, future studies could take notice of this issue and experiments can be done to evaluate the efficacy of predictive variables in reducing body dissatisfaction. Finally, it is recommended doing further research considering other social and personal variables to cover different aspects of discontent of body image.

Acknowledgements

Hereby, we thank all the authorities from the Ministry of Education as well as the selected high schools across Tehran who helped us to carry out this study.

Authors' Contribution

The authors were involved in the study design, data collection, interpretation of the results, and the preparation of the manuscript.

Funding/Support

This study was support by the Shahid Beheshti University of Medical Sciences.

Financial Disclosure

Not declared.

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