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Evaluating the mediating role of cognitive emotion regulation strategies in the relationship between body shame and body dysmorphic disorder symptoms

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ABSTRACT

Background and Purpose: Body dysmorphic disorder is a psychiatric disorder that is characterized by an excessive concern about a slight defect or defect in physical appearance that leads to dysfunction in one or more areas of the body. This research was conducted with the aim of evaluating the mediating role of cognitive emotion regulation strategies in the relationship between body shame and body dysmorphic disorder symptoms. **Methods:** The method of this research is structural equation modeling. The statistical population of this research includes women and girls referring to the beauty clinics of the 4th and 8th districts of Tehran, of which there are 232 people and the sampling method in this research is sampling. The main tool for collecting information in this research is to measure self-objectification, the body monitoring subscale, and to measure body shame, the body shame subscale is from the objectified body awareness scale of McKinley and Hyde (1996), the Cognitive Emotion Regulation Questionnaire by Garnefski, Kraaij, & Spinhoven (2001) and the body deformity questionnaire used by Stozin et al. (1998). In order to determine the presence or absence of influence between the variables and estimate and generalize the results obtained from the sample size to the statistical population, correlation model, Pearson correlation coefficient test, regression models (mediator model) and SPSS and AMOS statistical software have been used. **Results:** According to the findings of this research, body shame has a positive and significant relationship with symptoms of body deformity disorder ($P<0.001$). Body shame has a significant relationship with symptoms of body deformity disorder through the mediation of cognitive emotion regulation strategies ($P<0.001$). **Conclusion:** The results It can be concluded that cognitive emotion regulation strategies play a mediating role in the relationship between body shame and body deformity anxiety symptoms.

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Introduction

Body dysmorphic disorder is a psychiatric disorder characterized by excessive concern about a defect or slight defect in physical appearance that leads to dysfunction in one or more areas of the body. This disorder was identified more than a hundred years ago by Kraepelin, he called it fear of body deformity, and it was mentioned for the first time in the third edition of the Diagnostic and Statistical Manual of Mental Disorders. Until today it has been mentioned as "body deformity disorder". (Lekakis, Picaut, Gabriel, Greitens, & Helling, 2016). In this disorder, a person has a mental preoccupation with a defect in appearance, which is either imaginary or a physical abnormality in the person; the person's anxiety about it is extreme and painful. Among the characteristics of this disorder are looking in the mirror, comparing one's physical characteristics with others, extreme concealment, manipulation of the skin, and reassurance seeking (Rabiei, Salahian, Bahrami, and Palahang, 2019). One of the cognitive-emotional systems involved in worrying about the body is the differences between people in regulating their emotions. Therefore, it is important to focus on the individual differences of women in protective and risk factors that can increase or decrease body concern (Hogg, Galon, 2011). It has been found that when faced with stressful events, people use different emotion regulation strategies to modify or moderate their emotional experience (Gross & Thompson, 2007; Cole, 2009; cited in Troy, 2012; Aldau, Nolen Hoeksma, & Switzer, 2010).

Emotion regulation plays an important role in our adaptation to stressful life events (Eisenberg, Fabes, Gasseri, and Risser, 2000; quoted by Samani, 2010). Emotion regulation has always been suggested as a mediating variable in the stress adaptation field (McCarthy, Lambert, & Muller, 2006; Silk, Vanderbite-Adrins, Shaw, Forbes, et al., 2007). According to mediating models, exposure to stress leads to emotional dysregulation, leading to negative outcomes (Troy & Mauss, 2011). According to what was described, few studies have investigated the role of emotional regulation and its relationship with body deformity disorder in women applying for cosmetic surgery in the form of structural models. Therefore, the current research aims to determine body shame's direct and indirect effect on body deformity disorder. This research aims at the effect of cognitive emotion regulation strategies and body shame variables on body deformity disorder at the same time using a hypothetical model (Figure 1), which the researcher presented considering the existing theoretical and experimental issues. Therefore, the current research question was: Do cognitive emotion regulation strategies mediate the relationship between body shame and body deformity disorder symptoms?

Method

This research is a correlational-descriptive research and the statistical population of this research is women and girls who refer to beauty clinics in the 4th and 8th districts of Tehran, the sample size in this research is 232 people using SPSS SAMPLE POWER software and the sampling method in this research was available sampling.

Tools

1. Objectified body consciousness scale: To measure self-objectification, the surveillance subscale was used, and to measure the body shame subscale, the objectified body awareness scale of McKinley and Hyde (1996) was used. Surveillance subscale (self-objectification): This subscale contains eight items (α = 0.621) and those with higher scores are those who frequently pay attention to their bodies and are more concerned about their appearance in the eyes of others, how it looks rather than how they feel about their body. This scale has been validated in Iran by Salimi (2014), and its Cronbach's alpha has been reported as 0.678. Body shame subscale: The 8-item body shame subscale evaluates how people feel about their bodies (α = 0.670). A person who gets a high score believes that if he cannot fulfill the cultural expectations about his body, he will be guilty and blameworthy. This scale has been validated in Iran by Salimi (2014),

and its Cronbach's alpha has been reported as 0.69.

2. Cognitive emotion regulation questionnaire (CERQ): Garnefski et al. (2001) prepared the cognitive emotion regulation questionnaire in the Netherlands and has two English and Dutch versions. This questionnaire is a self-report tool and has 36 items. This questionnaire is very easy to implement and can be used for people 12 years old and above (both normal people and clinical populations). The scale scores range from 1 (almost never) to 5 (almost always). Each subscale contains 4 items. The total score of each subscale is obtained by adding the scores of the items, so the range of scores for each subscale will be between 4 and 20. High scores in each subscale indicate the greater use of the mentioned strategy in dealing with stressful and negative events. The Persian version of the cognitive emotion regulation questionnaire was validated in Iran by Hosni (2009).

3. Body Dysmorphic questionnaire: To measure the body dysmorphic disorder, the body deformity questionnaire of Stozin et al. is used. This questionnaire was evaluated in Australia and on a sample of 17 people, and the results show adequate internal validity, one-dimensional factor structure, and a strong correlation between distress and anxiety and work, and a moderate correlation with depression symptoms and a significant correlation with psychotic symptoms. This questionnaire has been standardized in Iran by Kazemini, Foroughi, Khanjani, and Mohammadi (2015). The confirmatory factor analysis results supported the single-factor structure of concern about the body dysmorphic disorder in the Iranian sample, and this questionnaire has scales of external shame, perfectionism, and negative affect. , has a negative and significant correlation with self-compassion, and Cronbach's alpha coefficient was 0.78.

Results

The frequency distribution of the respondent's age in this study indicates that 37.9% of the respondents in this study are less than 30 years old, 48.3% are between 30 and 40 years old, and 13.8% are more than 40 years old. The frequency distribution of the respondent's marital status in this research indicates that 46.6% were single and 53.4% were married. The frequency distribution of the education level of the respondents in this research indicates that 12.9% of the respondents had a post-graduate degree or lower, 60.8% had a bachelor's degree, and 26.3% had a master's level of education or higher. Frequency distribution of mental social class The respondents in this research indicate that 4.3 percent of the respondents reported their social class as low, 45.7 percent as middle class, and 116 people, equal to 50 percent, reported their social class as high. According to test 1 and the fact that the skewness and elongation of all variables are reported to be greater than 0.05, it can be concluded that all variables follow the normal distribution, and parametric tests should be used in this research.

Based on the results of the correlation coefficients between the scales of cognitive regulation of emotion, body shame, and symptoms of body deformity disorder, it was statistically significant ($P<0.01$), and according to the correlation coefficients reported between positive cognitive regulation and body shame and A negative correlation is seen with body dysmorphia disorder ($P<0.01$).

The conceptual examination of mediation in structural equation modeling shows that there are two basic concepts in the discussion of mediation: the direct effect and the indirect effect of variables on each other. In the mediation model, if the direct effect of one variable on another variable is statistically significant, but the indirect effect is not significant, it can be concluded that there is no mediation. In the mediation model, if the direct effect of one variable on another variable is not statistically significant, but the indirect effect is significant, it can be concluded that complete mediation prevails. In the mediation model, if both the direct and indirect effects are statistically significant, it can be concluded that the mediation is partial. According to the bootstrap or self-

management test that has been used for this model, and also according to the principles governing the discussion of mediation in structural equation modeling in general, it can be concluded that in this model, as both direct effects and indirect effects of body shame on symptoms body dysmorphia disorder has been reported to be significant. It can be concluded that there is mediation and the variable of cognitive emotion regulation strategies has a partial mediating role in the effect of body shame on the symptoms of body deformity disorder, so it can be generally concluded that cognitive emotion regulation strategies mediate body shame has a significant relationship with symptoms of body deformity disorder.

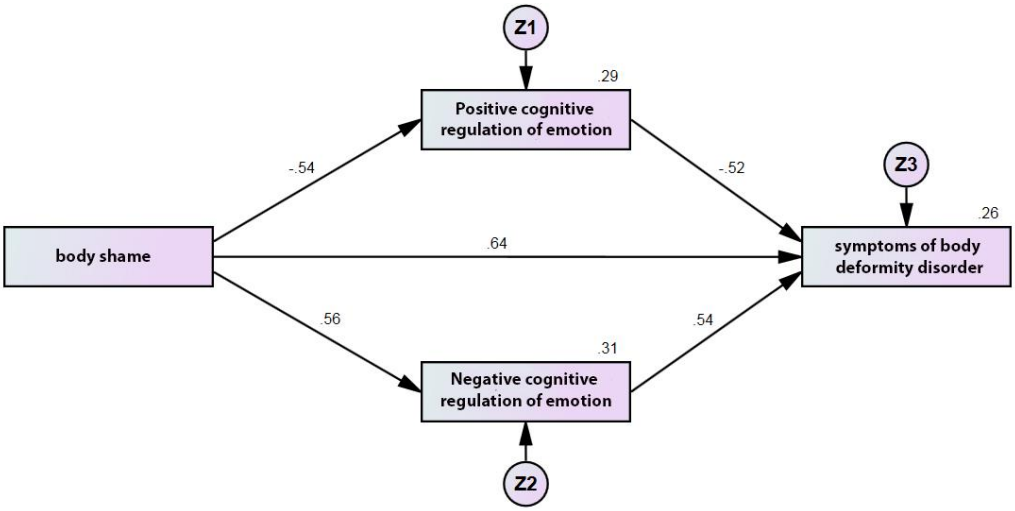

Figure 1. The final mediation model of cognitive emotion regulation strategies in the relationship between body shame and body dysmorphia disorder

Conclusion

This research was conducted to evaluate the mediating role of cognitive emotion regulation strategies in the relationship between body shame and body deformity disorder symptoms. The present study showed that body shame has a positive and meaningful relationship with the symptoms of body deformity disorder, so as the amount of body shame increases, the amount of body deformity disorder symptoms will also increase and vice versa. Because both the direct effect and the indirect effect of body shame on the symptoms of body dysmorphic disorder have been reported to be significant, it can be concluded that there is mediation and the variable of cognitive emotion regulation strategies has a partial mediating role in the effect of body shame on the symptoms of body dysmorphic disorder. Moreover, it can be concluded that body shame has a significant relationship with symptoms of body deformity disorder through the mediation of cognitive emotion regulation strategies. The idea of objectification in women causes them to have a negative view of their body image and to find a constant mental preoccupation with their appearance and body in order to assimilate their appearance with what is presented in the reference image media. As a result of receiving an adverse reaction to the appearance, a characteristic of self-objectification of the body, a person feels unaccepted and suffers shame and emotional distress. Creating this type of negative body attitude makes women have emotional disorders and as a result, coping with these negative internal feelings requires adaptation and positive adaptation and the use of more adaptive emotion regulation strategies (Carlson et al., 2012). In the same vein, the constant monitoring of appearance and self-objectification leads to feeling much shame about one's body. Too much comparison of one's body to these impossible cultural standards by women and girls can cause

feelings of inadequacy and embarrassment. Appearance anxiety is another negative consequence of body objectification, revealed by checking and arranging the appearance. In fact, many studies have shown that young women who have internalized a persistent sexually oriented gaze as a primary view of themselves have more severe appearance anxiety (Zurbringen et al., 2010).

Among the limitations of the present research, the following can be mentioned: Using the research results only for the city of Tehran. (Inability to generalize to other cities of the country). Unnecessary strictures of beauty centers and clinics in distributing questionnaires among referring women. The fragile cooperation of several respondents in answering the questions of the questionnaire, which we have convinced the respondents to cooperate with great difficulty and convincing explanations, and the impossibility of using the views of other experts related to the subject area of the research for supplementary evaluations.

Conflict of Interest

The authors of this article have no conflict of interest in conducting and writing it.

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