THE RELATIONSHIP BETWEEN DEPRESSION, ANXIETY, STRESS, AND SYMPTOMS OF BODY DYSMORPHIC DISORDER AND MEDIATING ROLE OF SELF-ESTEEM IN COSMETIC SURGERY

LENA DRAGANA GAJIĆ, MARTINA GAJIĆ

Objectives: The objectives of the study were to examine 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.

Methods: The following measurement instruments were used: (a) Sociodemographic variables; (b) The scale of depression, anxiety, and stress (DASS); (c) The Rosenberg Self-Esteem Scale (RSS); Appearance Anxiety Inventory; (AAI).

Results: The results of the Pearson correlation coefficient showed that depression, anxiety, and stress were associated with the symptoms of Body dysmorphic disorder, and depression was the most significant. The results of hierarchical regression analysis, as well as mediation analysis, showed that self-esteem has a mediating role in the relationship between depression, anxiety, stress, and symptoms of Body dysmorphic disorder.

Conclusions: This research opens new directions for research in the areas of depression, anxiety, stress, self-esteem, and body image in people who have undergone cosmetic surgery. It is also necessary to provide various psychoeducation programmes for the development of healthy ways of dealing with daily and life stressors, as well as support from psychotherapists whether it is anxiety, stress, depression, preoccupation with body image, or self-esteem.

Keywords: COSMETIC SURGERY, DEPRESSION, ANXIETY, STRESS, BODY DYSMORPHIC DISORDER, SELF-ESTEEM
stress, and the mediating role of self-esteem on the relationship between DASS and body image. 2.) Examine the mediating role of self-esteem on the relationship between DASS and Body dysmorphic disorder - Symptoms (body image) and DASS (depression, anxiety, stress). We expected a positive association between body image and all dimensions of DASS. We expected DASS to be a significant determinant of body image. 2.) Examining the mediating role of self-esteem on the relationship between DASS and Body dysmorphic disorder - Symptoms (body image).

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The study was conducted on a non-random sample of individuals who used different surgical treatments. Of the 380 participants who completed the questionnaire, 150 participants will be included in the analysis. Only those participants who had cosmetic surgical procedures were included in the analysis, while those who either had non-invasive procedures or had never had any cosmetic surgery were excluded. The age ranges from 21 to 65 years; 32.57 SD = 7.76. Out of 150 participants, 134 are from the Republic of Croatia, 14 from Bosnia and Herzegovina, and 2 from the Republic of Serbia. The study involved 2 men and 148 women. In terms of education, the largest number of participants have completed a Master of Science degree, 67 of them. Of the participants, 80 reported nasal surgeries, 35 breast surgeries, 8 ear surgeries, 9 blepharoplasty, 8 liposuctions, 3 jaw surgeries, 5 abdomenoplastics, 1 chin surgery, 1 labiaplasty, surgical removal of scars, 1 surgical removal of moles.

The questionnaire was applied online from 15 February 2022 to 28 February 2022. The questionnaires were distributed through 3 different closed groups on Facebook (Rekreancija Estetikih Zavjata i Tretmana; Rinoplastika Info-Hrvatska i Worldwide and Estetici zahvati-savjeti) and were shared on the Instagram profile of the blogger Maja Zahvati-Savjeti) and were shared on the Instagram profile of the blogger Maja Zahvati-Savjeti) and were shared on the Instagram profile of the blogger Maja Zahvati-Savjeti) and were shared on the Instagram profile of the blogger Maja Zahvati-Savjeti) and were shared on the Instagram profile of the blogger Maja Zahvati-Savjeti. Each participant was guaranteed anonymity and could withdraw from the questionnaire at any time.

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the relationship between body image and DASS, we calculated the Pearson correlation coefficient between these two measures.

Pearson's correlation coefficient showed that body image was significantly positively associated with depression (r = .530, p < .001), anxiety (r = -.510, p < .001), and stress (r = -.475, p < .001).

Results of Standard regression analysis show that depression (β = .323; t = .2.804; p <.01), and anxiety (β = .226; t = 1.707; p < .01) are significant predictors of body image. The results of standard regression analysis showed that stress (β = .043; t = .335; p =.01) is not a significant predictor of body image. Also, depression (β = .323; t = .2.804; p <.01) has been shown to be the strongest predictor of body image.

Self-esteem as a mediator in the relationship between body image and DASS

To determine whether self-esteem is a mediator relationship between body image and DASS, we conducted a hierarchical regression analysis. Before testing potential mediators, the variables must meet certain conditions (25). The first condition (a) is that the predictor (DASS) must be statistically significantly related to the potential mediator (self-esteem). The second condition (b) is that the potential mediator (self-esteem) must be statistically significantly related to the criterion (body image). The third condition (c) is a statistically significant association of predictors (DASS) and the criterion (body image). If in the hierarchical regression analysis, the beta weights decrease or become insignificant, after the predictor's association with the mediator and the mediator's association with the criterion are controlled, we can conclude that there is a mediation effect. Table 2. (see the Pearson correlation test in Table 2, where the association between body image and DASS and intercorrelations between self-esteem and DASS, and body image are shown) shows the correlations of all variables that were necessary to meet the conditions for testing the mediation effect.

Table 3 shows the results of the analysis, where the criterion is body image, the predictor was DASS, and the potential mediator was a self-esteem. The hierarchical regression analysis was performed in two steps. In the first step, the DASS variables were introduced, and in the second step, the self-esteem variable was introduced. Since all conditions were met for mediation testing, a hierarchical regression analysis was performed. The corrected R² results for the second block a depression (β = .323; t = 2.804; p <.01) is a significant predictor of body image, after the inclusion of self-esteem, depression (β = .158; t = 1.010) became becomes insignificant, which indicates the mediating role of self-esteem on the connection between depression and body image. Anxiety, on the other hand, the predictor was DASS, and the potential mediator was a self-esteem. The mediating role of self-esteem on the relationship between depression and body image is positively associated with these patients. Who are requesting cosmetic surgery are more anxious than the general population and they are preoccupied with what other people think of their appearance (11).

In our study, the second hypothesis was confirmed; self-esteem was shown to play a mediating role in the association between DASS and body image.

Mediation relationships occur when a third variable plays an important role relative to the other two variables. Certain depressed patients showed psychological symptoms, and they improved their self-esteem and depressive symptoms following cosmetic surgery (7). Also, it indicates that people who believe much of their self-esteem depend on their body image may be more prone to improve their appearance (26).

The results of mediation analysis confirm that self-esteem has a mediating effect on the association of depression, anxiety, stress, and body image; and this finding is consistent with the Borujeni study whose results showed the importance of individual factors such as self-esteem as determinants of body image (19).

As the results of the Borujeni study showed that the procedure helped improve their body image while boosting self-esteem (sel 19). Our study also showed that people with cosmetic surgery who have higher self-esteem are less preoccupied with body image. It is possible that people after cosmetic surgery no longer think about covering up the shortcomings since they removed them with surgery. Then, they compare their appearance less with other people if they are happy with their appearance after surgery as well as the way they look or the way they look before physical changes occurred during adolescence (e.g., nose growth). There is also no need to hide certain aspects of appearance and therefore the preoccupation with one's image is lower, and self-esteem is higher. Thus, our research has shown that self-esteem is a more important determinant than depression, anxiety, and stress when it comes to body image.

Finding that self-esteem is a significant predictor of body image has an important implication. Preoccupation with body image usually begins during adolescence. Adolescents today have access to many social networks and use photoshopped images more than before. This can put pressure on adolescents who may have low self-esteem after adolescence and be preoccupied with body image through various developmental periods; from adolescence to middle (mature) age. If teachers allow bullying and do nothing, it can lead to a decrease in the adolescents' self-esteem, and thus improve their self-esteem and depressive symptoms following cosmetic surgery. But also, it indicates that people who believe much of their self-esteem depends on their body image may be more prone to improve their appearance (26).

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that the adolescent can see the effect of makeup, cosmetic surgery, and people without makeup and cosmetic surgery. This would provide insight into the absence of aesthetically perfect people as it can be shown on the covers or videos. It is also necessary to provide information for the development of healthy ways of dealing with daily and life stressors, various psychoeducation programmes, and support from psychotherapists whether it is anxiety, stress, depression, preoccupation with body image, or self-esteem.

The research conducted has several limitations. The lack of research is the correlated nature of the study. The exact nature of the relationship can only be examined through experimental design. A third variable could affect the results. Future studies may use longitudinal design; then, dimensions of DASS were measured by self-assessments which could lead to socially desirable responses and motivated distortion of questionnaire data. It is possible that the results were influenced by the in-depth interviews. It is important to compare the results of people who have had an aesthetic procedure and who are satisfied with the outcome and those who are not satisfied; it is also necessary to include a control group that does not plan to perform any aesthetic procedure. This research opens new directions for research in the areas of depression, anxiety, stress, self-esteem, and body image in people who have undergone cosmetic surgery. This research needs a good introduction to another, concrete work that would include certain aesthetic procedures and surgeon’s and that would compensate for the limitations of this research. It is also the first study of the relationship between these variables and the body dysmorphic disorder symptoms, in people undergoing cosmetic surgery in our area.


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LITERATURE
Sažetak

POVEZANOST IZMEĐU DEPRESIJE, ANKSIOZNOSTI, STRESA I SIMPTOMA TJELESNOG DISMORFNOG POREMEĆAJA I MEDIJACIJSKE ULOGE SAMOPOŠTOVANJA U ESTETSKOJ KIRURGIJI

Lena Dragana Gajić, Martina Gajić

Ciljevi: Ciljevi rada bili su ispitati povezanost simptoma tjelesnog dismorfnog poremećaja (tjelesne slike) i depresije, anksioznosti i stresa kao i medijacijsku ulogu samopoštovanja u objašnjenju ove povezanosti kod osoba podvrgnutim estetskim kirurškim zahvatima.

Metode: Korišteni su sljedeći mjerni instrumenti: (a) Upitnik općih podataka koji je sadržavao sociodemografska obilježja; (b) Skala depresivnosti, anksioznosti i stresa (DASS); (c) Rosenbergova skala samopoštovanja (RSS); Inventar izgledne anksioznosti (AAI).

Rezultati: Rezultati Pearsonovog koeficijenta korelacije su pokazali da su depresija, anksioznost i stres povezani sa simptomima tjelesnog dismorfnog poremećaja, a najznačajnijom se pokazala depresivnost. Rezultati hijerarhijske regresijske analize kao i medijacijske analize su pokazale kako samopoštovanje ima medijacijsku ulogu na povezanost između depresije, anksioznosti, stresa i simptoma tjelesnog dismorfnog poremećaja.

Zaključci: Ovo istraživanje otvara nove pravce za istraživanja u području depresije, anksioznosti, stresa, samopoštovanja i zaokupljenosti vlastitom tjelesnom slikom kod osoba koje su podvrgnute različitim estetskim kirurškim zahvatima. Također je potrebna psihodukacija za zdravo nošenje sa svakodnevnim i životnim stresorima, podrška psihoterapeuta i značajnih drugih bilo da se radi o anksioznosti, stresu, depresiji, zaokupljenosti slikom tijela odnosno samopoštovanju.

Ključne riječi: DEPRESIJA, ANKSIOZNOST, STRES, TJELESNI DISMORFNI POREMEĆAJ, ESTETSKI KIRURŠKI ZAHVATI, SAMOPOŠTOVANJE

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