



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

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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

INTRODUCTION

The American Society of Plastic Surgeons defines cosmetic surgery as a surgery that includes surgical and non-surgical procedures that enhances and reshapes structures of the body to improve appearance and confidence (1). The top 5 cosmetic surgical procedures in 2020 have been nose reshaping, eyelid surgery, facelift, liposuction, and breast augmentation. The top five cosmetic minimally invasive procedures in 2020 have been botulinum toxin type A, soft tissue fillers, laser skin resurfacing, chemical peel, and intense pulsed light (2). The International Society of Aesthetic Plastic Sur-

gery (ISAPS, 2B) established a symbol of patient safety, a diamond comprised of four factors that are critical to the practice of safe aesthetic plastic surgery: 1.) Procedure (Appropriate procedure for each patient), 2.) Patient (Is the patient a good candidate for the chosen procedure), 3.) Surgeon (A licensed surgeon with good experience and knowledge), 4.) Surgical setting (qualified people and developed emergency procedures). The Croatian Society for Plastic, Reconstructive, and Aesthetic Surgery is a core association that monitors the Croatian PRA surgery, and ensures that cosmetic surgery is performed only by licensed plastic surgeons (2C). Choosing a qualified (licensed/certified) plastic surgeon is the most important factor for the success of aesthetic (cosmetic) surgery. In the pre-operative treatment, the patient signs three important documents e.g., for breast augmentation:

1.) Informed consent - Augmentation mammoplasty, 2.) Special consent to Augmentation mammoplasty operation, 3.) Patient images analysis.

In the pre-operative treatment, the surgeon makes a personal conclusion about the patient's suitability for the chosen cosmetic surgery or other aesthetic procedure (1).

In examining the issues related to cosmetic surgery and body image and the attitudes of men and women across the life Span, people interested in cosmetic surgery had a weaker body image than those not interested in cosmetic surgery (3). Schilder defines body image as "the picture of our own body which we form in our mind" how the body appears to ourselves (4). Body dysmorphic disorder (BDD) has integral ties to body image disturbance (5). BDD is a preoccupation with one or more perceived de-

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fects in physical appearance that are not observable or appear slight to others (6).

Certain depressed patients showed psychosomatic manifestations, and they improved their self-esteem and depressive symptoms following cosmetic surgery (7).

Depression is an emotional state characterized by great sadness and bad forebodings, feelings of worthlessness and guilt, withdrawal from others, insomnia, loss of appetite and sexual desire, or loss of interest in normal activities and the pleasures that result from them (8). Sometimes the anxiety and stress, self-critical perspectives, or low self-esteem, in body image, may cause people to tend to change their organs' appearance and undergo plastic surgery (9).

Social anxiety is "anxiety due to a concern of how one will be perceived by others" (10). Patients who are requesting cosmetic surgery are more anxious than the general population (11). Stress is a feeling of mental press and tension (12). One study has shown an association between body image satisfaction and fewer stressors (13).

Rosenberg stated that self-esteem refers to an individual overall positive evaluation of the self (14). One study showed that there is a direct correlation between self-esteem and demand for cosmetic surgery (15).

A review of the literature on the relationship between depression, anxiety, stress, and body image suggests that body image and depression, anxiety, and stress are significantly related as well as body image and self-esteem (16-19). Previous research on plastic surgery in our area has not included clients of cosmetic surgery with this topic.

The main goal of our research was first to examine the relationship between body image and depression, anxiety, stress, and the mediating role of self-esteem in explaining this relationship.

Considering the stated goals and the earlier results of the research, the following problems and hypotheses were set: 1.) Examine the relationship between

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.) Examine the mediating role of self-esteem on the relationship between DASS and Body dysmorphic disorder - Symptoms (body image).

The self-esteem will be a significant mediator of the relationship between DASS and body image.

RESEARCH METHODOLOGY

Sample and procedure

The study was conducted on a non-random sample of individuals who used different surgical treatments. Of the 380 participants who completed the questionnaires, 150 participants were 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 never had any cosmetic surgery were excluded. The age ranges from 21 to 65 years; $M = 32.57$ $SD = 7.76$. 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 150 participants; 80 reported nasal surgeries, 35 breast surgeries, 8 ear surgeries, 9 blepharoplasty, 8 liposuctions, 3 jaw surgeries, 3 abdominoplasties, 1 chin surgery, 1 labiaplasty, 1 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 (Recenzije Estetskih Zahvata i Tretmana; Rinoplastika Info-Hrvatska i Worldwide and Estetski zahvati-savjeti) and were shared on the Instagram profile of the blogger Maja Tomić. Each participant was guaranteed anonymity and could withdraw from the questionnaire at any time.

Instruments

The following instruments were used in the study: Sociodemographic variables, Depression, Anxiety and Stress Scale, Rosenberg Self-Esteem Scale, and Appearance Anxiety Inventory. We will describe each of the scales in more detail below.

Sociodemographic variables. For this research, a general data questionnaire was compiled. The questionnaire contained questions about the socio-demographic characteristics of the participants (gender, age), country of residence, level of education, whether the participant ever had cosmetic surgery, and if so, which surgery he/she had.

The scale of depression, anxiety, and stress - DASS

The DASS scale consists of 42 particles and in the original shows a three-factor structure. The subscale of depression, a subscale of anxiety, and a subscale of stress, each having 14 particles. The depressive subscale refers to the symptoms of dysphoria, hopelessness, self-depreciation, apathy, and lack of interest. The anxiety subscale refers to the excitation of the autonomic system and situational anxiety. The stress scale includes indicators of chronic, nonspecific arousal, difficulty relaxing, anxiety, and impatience. The overall result is formed as a linear combination of assessments by the individual subscales. The Croatian version was adapted by Reić Ercegovac (20). The reliability of the type of internal consistency (Cronbach's alpha) of individual subscales in our study is 0.95 for the depression subscale, 0.89 for the anxiety subscale, and 0.93 for the stress subscale.

The Rosenberg Self-Esteem Scale is a one-dimensional scale designed to measure the global self-esteem. This form of the Likert-type scale was adapted by Crandall (21). It consists of 10 particles, five of which are positive and five negative particles. The original goal of the scale was to measure the self-esteem of high school students, and over time it began to be used to measure the self-esteem of all age groups for whom there

Table 1.

Descriptive statistical values, Arithmetic Mean, Standard Deviation, Skewness and Kurtosis, Kolmogorov Smirnov for DASS, self-esteem, body image

DASS	N	Min	Max	Mean		SD	Skewness	Kurtosis	K-S	p
				S	SE					
Depression	150	0	39	7.33	.725	8.874	1.473	1.542	.205	.000
Anxiety	150	0	39	7.90	.631	7.722	1.474	2.103	.173	.000
Stress	150	0	40	13.02	.829	10.148	.855	-.033	.126	.000
Self-esteem	150	20	50	40.08	.567	6.945	-.668	-.230	.116	.000
Body image	150	2	38	14.73	.624	7.643	.570	-.139	.073	.049

Note: K-S test (Z value of distribution normality obtained by Kolmogorov-Smirnov test)

are also norms. It also showed good predictive and constructive validity by a significant correlation with Coopersmith's self-esteem questionnaire. The reliability of the internal consistency type (Cronbach alpha) in our study is 0.85.

Appearance Anxiety Inventory; AAI; (22) - Body image scale

The Appearance Anxiety Inventory is a 10-question self-assessment scale that measures the cognitive and behavioral aspects of body image anxiety in general, and body dysmorphic disorder (BDD) in particular. This scale is useful as a part of the diagnostic procedure for BDD as well as for monitoring symptoms during treatment. AAI was developed by Veale et al. (22). AAI was found to have a good convergent validity. Participants responded by rounding off the corresponding number on a Likert-type scale with five degrees, and the total score was formed as the sum of all particles. A higher score indicates greater symptoms. The Croatian version was adapted by Anđelinović and Keresteš (23). The reliability of the internal consistency type (Cronbach alpha) in our study is 0.87.

Methods of descriptive statistics were used in statistical data processing: Arithmetic Means and Standard deviations, Skewness, Kurtosis. The normality of the distribution was examined by the Kolmogorov-Smirnov test. Pearson's correlation coefficient was used to determine the association between depression, anxiety, stress, and body image. Hierarchical regression analysis, as well as mediation analysis, were used to de-

termine the mediating role of self-esteem on the relationship between DASS and body image. A significant level of association is set at a 0.1 level of significance. The statistical package SPSS 26 and the Free Sobel Test Calculator for the Significance of Mediation were used in the analysis and data processing.

RESULTS

In the first part, we will present the results of descriptive statistics for all variables used in this study. In the second part, the main analysis will be presented, based on which we will try to answer the research problems. Table 1. shows the results of descriptive statistics of measuring instruments used in this study.

Before starting the data processing, we checked whether the results of the DASS and the Body image scale (Appearance Anxiety Inventory) were distributed according to the normal distribution. For this purpose, we used the Kolmogorov-Smirnov (K-S) test of distribution normality.

Using the Kolmogorov-Smirnov test, an attempt was made to determine the normality of the distribution of results obtained by applying the scales used in the research. All results were found to deviate to some extent from the normal distribution (see Table 1.). Thus, it was determined that the results concerning depression as a dimension of DASS show the most significant deviation from the normal distribution.

Authors Aron and Aron estimate that parametric statistics can be used to give acceptable results if the curves do not deviate extremely from normal (24). Such data are expected because it is a non-clinical population. Since in this case, we have a large enough sample ($N = 150$), most distributions graphically resemble normal curves and their values of asymmetry and flatness are not higher than the default values, it was estimated that it is justified to use parametric statistics.

Table 2. provides an overview of body image correlations with DASS. To answer the first problem and examine

Table 2.

Pearson correlation coefficients between DASS and body image and intercorrelations DASS, body image, self-esteem

	Body image	Self-esteem
Depression	.530***	-.685***
Anxiety	.510***	-.565***
Stress	.475***	-.520***
Body image	1	-.507***

Note: ***The correlation is significant at the level of 0.001

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 ($r = .530$; $p < 0.001$), anxiety ($r = .510$, $p < 0.001$), stress ($r = .475$, $p < 0.001$).

Results of Standard regression analysis to predict body image preoccupation are below. The results of standard regression analysis, where the criteria is body image, and the predictor is DASS. The corrected R2 results for the second model show that approximately 29.3% of body image variability was explained by three predictors. The results of ANOVA show that this model is significant $F(3; 146) = 21,567$; $p < 0.001$. The results of standard regression analysis show that depression ($\beta = .323$; $t = 2.804$; $p < 0.01$), and anxiety ($\beta = .226$; $t = 1.707$; $p < 0.1$) are significant predictors of body image. The results of this analysis showed that stress ($\beta = .043$; $t = .335$; $p > 0.1$) is not a significant predictor of body image. Also, depression ($\beta = .323$; $t = 2.804$; $p < 0.01$) 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

Table 3.
Hierarchical regression analysis to determine the mediating effect of self-esteem on the relationship between DASS and body image

	Model 1		Model 2	
	B	T	B	T
Depression	.323	2.804**	.158	1.243
Anxiety	.226	1.707+	.190	1.465
Stress	.043	.335	.064	.503
Self-esteem			-.257	-2.770**
R=	.554		.585	
R2=	.307		.342	
cR2=	.293		.324	
F=	21.567***		18.833***	
Df=	3;146		4;145	

Notes: + Correlation is significant at 0.1, ** Correlation is significant at 0.01; *** The correlation is significant at 0.001

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, 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 model show that approximately 32.4% of body image variability was explained by four predictors. The results of ANOVA show that this model is significant $F(4; 145) = 18,833$; $p < 0.001$. While in the first block a depression ($\beta = .323$; $t = 2.804$; $p < 0.01$) is a significant predictor of body image, after the inclusion of self-esteem, depression ($\beta = .158$; $t = 1.010$) became insignificant, which indicates the mediating role of self-esteem on the connection between depression and body image. Also, in the first block anxiety ($\beta = .226$; $t = 1.707$; $p < 0.1$) is a significant

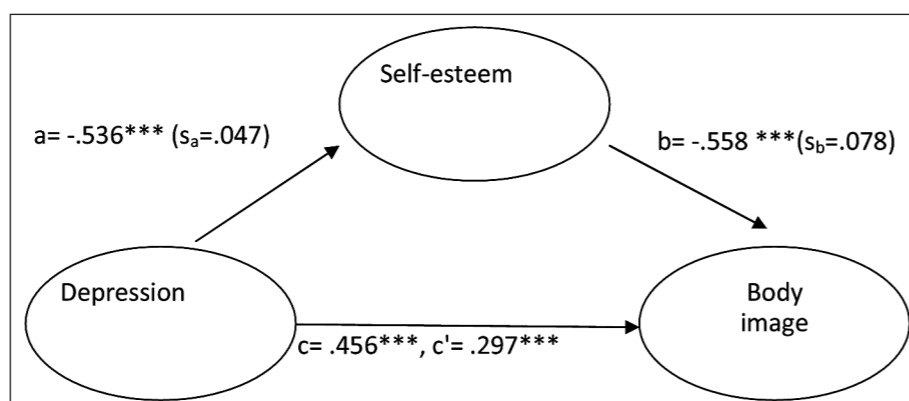


Figure 1.
The mediating effect of self-esteem on the association between depression and body image
Note: ***The correlation is significant at the level of 0.001

predictor of body image, and after the inclusion of self-esteem, anxiety ($\beta = .190$; $t = 1.465$; $p > 0.10$) is becoming an insignificant predictor indicating the mediating role of self-esteem on the relationship between anxiety and body image.

Depression is the strongest predictor of body image in the first block ($\beta = .323$; $t = 2.804$; $p < 0.01$), while in the second block, self-esteem ($\beta = -.257$; $t = -2.770$; $p < 0.01$) is the strongest predictor of body image.

Sobel Test was used for testing the Significance of Mediation. Figure 1. shows the mediating effect of self-esteem on the association between depression and body image. The Sobel test showed significant mediation (6.06; $p < 0.001$).

Sobel tests for other DASS dimensions showed the following:

Sobel test was utilized to examine if self-esteem mediated the relationship between anxiety and stress symptoms and body image preoccupation. First, the results of simple linear regression show that anxiety was a statistically significant predictor of body image ($B = .505$, $t = 7.222$, $p < .001$) as well as stress ($B = .358$, $t = 6.566$, $p < .001$). Next, when self-esteem was entered in the regression analysis, anxiety was still a significant predictor of body image ($B = .326$, $t = 4.026$, $p < .001$), as well as stress ($B = .218$, $t = 3.634$, $p < .001$), but the beta weights decrease, and we can conclude that there is a mediation effect. On the other hand, the mediator, self-esteem, emerged as a significant predictor of body image ($B = -.558$, $SEB = .078$, $t = -7.151$, $p < .001$) and self-esteem, emerged as a significant predictor of anxiety ($B = -.508$, $SEA = .061$, $t = -8.330$, $p < .001$) as well as stress ($B = -.356$, $SEA = .048$, $t = -7.407$, $p < .001$). Results of the Sobel test confirmed that self-esteem significantly mediates the relationship between anxiety and body image symptoms ($Z = 5.43$; $p < .001$) as well as stress and body image ($Z = 5.15$; $p < .001$).

These values, together with the results of correlation analyses indicate a mediating effect of self-esteem on the association of depression, anxiety, stress, and body image.

DISCUSSION AND CONCLUSION

Body image research has shown that this construct is related to several variables in the field of Personality Psychology. This study aimed to examine the relationship between the dimensions of DASS and Body dysmorphic disorder - Symptoms and to examine the mediating role of self-esteem on the relationship between DASS and body image. Below we will present the findings, limitations, implications as well as suggestions for future work.

Given that Pearson's correlation coefficient showed that all dimensions of DASS are significant determinants of body image, we can conclude that the first hypothesis has been confirmed. Pearson's correlation coefficient showed that body image was significantly positively associated with depression, anxiety, and stress which is in line with the results of the research by Javanbakht and Hakim (16, 17). Given that there is a significant positive correlation, the research results show that the more users of cosmetic surgery achieve higher results on the depression scale, the more preoccupied they are with body image, and those who achieve lower results on the depression scale are less preoccupied with body image. Also, those who score higher on the anxiety scale are more preoccupied with body image as well as those who score higher on the stress scale.

Such results are expected given previous research according to which body image is positively associated with these dimensions. 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 psychosomatic manifestations, 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 (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 and look the way they always wanted to look or the way they looked 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 photo-shop 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 an increase in body image preoccupation. It takes more education, more portrayal of celebrities, and significant others in the right light so

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 responses (27). It would be useful to include assessments of others in future research.

However, since the use of self-assessments is more feasible than involving the families of the participants, we suggest, in addition to self-assessments, the use of qualitative research methods, such as in-depth interviews.

The disadvantage of this research is also related to the implementation of the research. It was an online survey, so the researcher could not control the conditions in which the survey was conducted. Also, it is possible that the results were influenced by some other factors such as the current mood of the participants, health problems, and so on.

Given the shortcomings and suggestions for future research, further research is needed to ensure that the research fully answers all questions regarding its validity.

In this study, we included all cosmetic surgeries together to examine their relationship with depression, anxiety, and stress.

Recommendations for future research are to include each cosmetic sur-

gery individually with the mentioned variables. Non-invasive procedures such as dermatological treatments (lip augmentation, dermal fillers, Botox, facial rejuvenation, chemical peels, etc.), cosmetic treatments (laser hair removal, eyebrow and lip micro-pigmentation, lymphatic drainage, etc.), and aesthetic dental treatments (aesthetic fillings, dental veneers, teeth whitening, etc.) should be investigated too. These aesthetic procedures can be a source of psychosomatic disorders, especially if these procedures are performed by doctors who do not have the appropriate license.

It is necessary to put more emphasis on mental health, both through various psychoeducation programmes and in schools, universities, and health institutions. The cooperation of psychologists and specialists in plastic, reconstructive and aesthetic surgery is also needed, as there is a possibility that people who achieve high results on the body image scale (the higher the results on the body image scale, the greater the symptoms of body dysmorphic disorder) will be dissatisfied after surgery and seek further aesthetic procedures. The success of the surgery is determined by the patients themselves and in practice, there is a syntagm, that the surgeon performed the surgery well, only if the patient is satisfied with the outcome of the surgery.

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 is a good introduction to another, concrete work that would include certain aesthetic procedures and surgeries 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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Autori su popunili *the Unified Competing Interest form* na www.icmje.org/coi_disclosure.pdf (dostupno na zahtjev) obrazac i izjavljuju: nemaju potporu niti jedne organizacije za objavljeni rad; nemaju financijsku potporu niti jedne organizacije koja bi mogla imati interes za objavu ovog rada u posljednje 3 godine; nemaju drugih veza ili aktivnosti koje bi mogle utjecati na objavljeni rad./ *All authors have completed the Unified Competing Interest form at www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare: no support from any organization for the submitted work; no financial relationships with any organizations that might have an interest in the submitted work in the previous 3 years; no other relationships or activities that could appear to have influenced the submitted work.*

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Sažetak

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

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Ciljevi: Ciljevi rada bili su ispitati povezanost simptoma tjelesnog dismornog 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 dismornog 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 dismornog 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 psihoedukacija 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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