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Effect of Cosmetic Surgery on Self-Concept and Self-Esteem

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ABSTRACT: *Aim:* The present study sought to assess the relationship of cosmetic surgery with self-concept and self-esteem. **Materials and Method:** A total of 46 candidates for cosmetic surgery filled an Ego Identity Status - Self Esteem Questionnaire before and 4-months after cosmetic surgery. **Results:** Repeated ANOVA test showed no significant differences in self-conceptualization of patients after surgery; whereas, self-esteem improved significantly. Self- conceptualization of subjects with identity diffusion decreased post-operatively. Subjects with identity moratorium reported a significant decrease in their self-esteem after the surgery. Subjects who had a susceptible identity psychologically and receptive feelings for facial cosmetic surgery showed improved self-esteem and self- conceptualization post-surgery. **Conclusion:** Our study results demonstrated that self-esteem of respondents increased significantly after the operation but self- conceptualization did not improve significantly.

Key words: Cosmetic surgery, Identity status, Self- conceptualization, Self-esteem

INTRODUCTION

Iran is ranked among the first in terms of number of cosmetic procedures performed yearly (Moosavizadeh, 2009). Cosmetic surgery focuses on improving morphologic traits of patients unsatisfied with their self-image. Self-image is highly influenced by public opinion, norms and esthetic trends in the society and specific time era. (Ferraro, Rossano, & Andrea, 2005). Cosmetic surgery candidates all share a defective body image and are not satisfied with their self-perception (Ferraro, Rossano, & Andrea, 2005; Kamburoglu & Figen, 2007; Sarwer et al., 1998; Sarwer et al., 1998). Body image is a significant part of self- conceptualization and has 2 domains namely ideal self- conceptualization and perceived self-conceptualization.

Ideal self- conceptualization is a collection of ideal mental pictures that are borne in mind and the person seeks to achieve.

Perceived self- conceptualization results from how the individual sees himself or herself. Both ideal conceptualization and perceived self- conceptualization have been formed abnormally in subjects obsessed with their appearance. Ideal self- conceptualization is too idealistic while perceived self- conceptualization is unfavorably too negative. The greater the discrepancy between these two body images, the greater the confusion of the individual. Therefore, in order to overcome such negative feelings the subjects may change their perceived self-concept towards achieving an ideal one. This is what cosmetic surgery patients seek to pursue (Stevens, 2005).

Researchers believe that impaired self- conceptualization and low self-esteem are among the main mental issues prompting patients to seek cosmetic surgery (Ferraro, Rossano, & Andrea, 2005; Pecorari, 2010). The terms self- conceptualization and self-esteem are usually used interchangeably. However, there are fundamental and conceptual

differences between these two terms. Self- conceptualization refers to an individual's perception of one's "self" in relation to the physical and behavioral characteristics and emotional qualities.

Self-esteem reflects a person's overall evaluation or appraisal of his or her own value based on their social experiences (or social status) (Patrick, Mike, & Lynda, 2008).

The difference between self- conceptualization and self-esteem relate to the beliefs, emotions, qualitative judgments and evaluations of one's self. Positive or negative self-evaluation of the individual is based on the social value felt and accepted by that person.

Self-concept relates to the beliefs, feelings, evaluations, attitudes and vision that one has towards oneself (Kobal, Musek, 2001).

Although the rate of psychological problems and mental disorders is higher among patients seeking cosmetic surgery as compared to other patients (Nye & Cash, 2006), changing the appearance and via surgery may not necessarily result in patient satisfaction and bliss. Dissatisfaction of body image may be due to other emotional and psychological reactions that may still remain despite cosmetic surgery. Available studies have failed to reach a consensus with regard to the perceived efficacy of cosmetic surgery. There is evidence demonstrating that cosmetic surgery improves the patient's body image (Kamburoglu & Figen, 2007; Nye & Cash, 2006; Soest, Kvaalem, Roald, & Skolleborg, 2009), social image, attitude, social interactions (Meningaud, 2003), mental health and self-esteem as well as quality of life (Neto, 2007) and overall satisfaction (Kamburoglu & Figen, 2007). However, some studies have shown that cosmetic surgery does not have a significant effect on self-esteem, quality of life or overall satisfaction (Crerand, Franklin, & Sarwer, 2008; Soest, Kvaalem, Roald, & Skolleborg, 2009; Meningaud et al., 2003; Bolton, Pruzinsky, Cash, & Persing, 2003; Cash, 2000).

It appears that cosmetic surgery when used as a psychological intervention (Pertschuk, Sarwer, Wadden, & Whitaker, 2004) has

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a greater efficacy in subjects who are psychologically more stable aiding in decreasing shyness and anxiety, betterment of inter-personal interactions, and improving self-esteem, attractiveness and self-image (Ferraro, Rossano, & Andrea, 2005). Kellett, Clarke & McGill (2008) concluded that based on the psychological profile of the patient, it would be prudent to receive psychological counseling prior to treatment (Kellett, Clarke, & McGill, 2008). Subjects with a healthier mental status are better candidates for cosmetic surgery. In a study by Pecorari et al, in 2010 in 3 subgroups of cosmetic surgery candidates : 1-pessimistic, shy, and insecure subjects with fragile and immature personality and poor self-esteem, 2- individuals concerned about the way they look and who spend more time thinking about it who were more confident subjects with stronger personality and greater self-esteem, and 3- a less differentiated group, included more impulsive subjects who spend a moderate amount of time thinking about the way they look (Pecorari et al., 2010). This classification is especially important for screening patients seeking cosmetic surgery because post-operative satisfaction may be affected by these factors.

The type of identity status can impact patient perception of appearance and body image. Formation of identity is a process of matching personal changes with social needs and future expectations (Sprinthall & Collins, 1995). Erikson (1970) defined psychosocial identity as a sense of coherence with the past and orientation for the future. The patient should incorporate his previously gained information and acquired skills and establish a personal identity. Marcia (1988) based on Erikson's thoughts comprehended two aspects of exploration and moratorium (Marcia, 1988). Exploration is the problem solving behavior with the aim of collecting information about one's self or environment in order to make important decisions in life (Grotevant, 1987). Moratorium is selection of beliefs, values and goals and pursuing them. Marcia also determined 4 identity statuses based on the extent people have accepted moratorium and how much they have explored in this process: 1-achievement (presence of both moratorium and exploration), 2-moratorium (lack of moratorium and exploration), 3-foreclosure (presence of moratorium and absence of exploration) and 4-diffusion (absence of moratorium and presence of exploration). The main aim of our study was to assess the role of identity status and determine the perceived efficacy of cosmetic surgery to evaluate the effect of surgery as a psychological intervention on the self-esteem and self-conceptualization of patients.

MATERIAL AND METHODS

Our study population included patients referring to our hospitals seeking cosmetic surgery. A total of 50 patients were selected through convenience sampling; after exclusion of drop-outs 46 were analyzed. A questionnaire was used for data collection before and 4 months after surgery namely the Extended Version of the Objective Measure of Ego Identity Status (EOM- EIS-2): This questionnaire has 64 questions and was first designed by Bennion and Adams (1986). For each subscale in this questionnaire 16, 6-point Likert questions (from totally agree to totally disagree) are used. Based on the total sum of the scores for these 16 questions, 4 identity statuses as independent variables are determined and analyzed. The mean reliability and consistency according to the Cronbach's alpha coefficient in 14 studies was calculated as 0.66. The mean reliability of the second test was 0.76 and the mean reliability for bisecting the questionnaire into 2 parts of identity-belief and inter-personal scales ranged from 0.37 to 0.64 (Rahiminejad). In the present study Cronbach's alpha was 0.75 for identity achievement, 0.93 for identity foreclosure, 0.74 for identity moratorium and 0.67 for identity diffusion.

Coopersmith's Self-Esteem Inventory

Coopersmith in 1967 designed his self-esteem scale by revising

the Rogers & Dymond's (1954). This scale has 58 yes or no items. Gaining a greater score in this questionnaire means having a higher self-esteem. Golparvar, Kamkar & Rismanchian (2008) reported the reliability of the Farsi version of this questionnaire as 0.83. In the present study, the pre-op and post-op Cronbach's alpha was 0.64 and 0.80 for this scale, respectively.

Roger's Self-Concept Scale

This scale was first developed by Rogers in 1951 and includes two forms of actual self and ideal self, each containing 25 questions. It is an objective test comprised of a 7-score range between 2 qualifications and the subject only chooses one of the numbers between the 2 qualifications. In this study, the total score of self-concept was used and the higher scores were indicative of the poorer self-concept. Sheykhyani (2003) reported the Cronbach's alpha and bisection reliability coefficients of self-concept scale as 0.71 and 0.50, respectively for actual self subscale and 0.79 and 0.73 for ideal self subscale.

In the present study, pre-operative Cronbach's alpha reliability coefficients were 0.76 for self-concept scale, 0.67 for actual self subscale and 0.78 for ideal self subscale. Post-operation, these rates were 0.82, 0.64 and 0.83, respectively. This study was reviewed and approved by the University Research Ethics Committee and Ministry of Education.

RESULTS

One way repeated measure analysis of variance (ANOVA) was used for evaluation of the efficacy of surgery. Based on Table 1, self-esteem of respondents significantly increased after the operation ($F = 6.04$ and $P < 0.05$). Self-concept of respondents also improved after surgery but this increase was not statistically significant. A total of 25 subjects (64.1%) reported a positive change while 14 (35.9%) reported a negative change in their self-concept. Self-esteem changed negatively in 20 (46.4%) and positively in 23 (53.5%) subjects. The mean frequency of identity diffusion, foreclosure, moratorium and achievement was 10.74 ± 44.91 , 12.91 ± 45.11 , 10.80 ± 53.76 and 11.18 ± 63.71 , respectively among the cosmetic surgery patients. Nine subjects had identity achievement (one standard deviation unit higher than the mean), 6 had identity foreclosure, 6 had identity moratorium and another 6 had identity diffusion.

As seen in Table 2, subjects with identity diffusion (one standard deviation unit higher than the mean) had a significantly lower self-esteem compared to others and cosmetic surgery could not improve their self-esteem. Subjects with identity foreclosure had a higher self-esteem compared to others before the surgery; and cosmetic surgery did not have a significant effect on their self-esteem. Although those with identity moratorium had a higher self-esteem compared to others, their self-esteem decreased after the surgery while that of others improved. This difference was statistically significant at $P = 0.01$. Cases with identity achievement had a higher self-esteem compared to others and cosmetic surgery could not change it significantly.

Self-concept after surgery increased in subjects with identity

Table 1. Results of one way repeated measures ANOVA before and after cosmetic surgery

	Mean (\pm SD)	F	P-value*
Self-esteem			
Pre-op	17.39(3.89)	6.04	0.018
Post-op	18.82(4.02)		
Self-concept			
Pre-op	12.56(9.93)	0.383	ns
Post-op	10.97(16.95)		
*Level of significance was set at 0.05.			

foreclosure, moratorium and achievement while it remained unchanged in those with identity diffusion. This difference at $P = 0.05$ was not statistically significant (Table 3).

DISCUSSION

The present study aimed to determine the effect of cosmetic surgery on self-esteem and self-conceptualization of surgical patients and assess the role of identity status in this respect.

Subjects with identity diffusion may believe the outcome of surgery to be more beneficial and feel a significantly higher improvement in their self-esteem than those with identity achievement. Recognition of the underlying factors in this respect can enhance the knowledge of both the specialists and the candidates about the underlying reasons for tendency towards cosmetic surgery. Studies like the present investigation can help in recognizing the psychological determinants involved in this regard and reducing the negative consequences and patient dissatisfaction after cosmetic surgeries.

The study results demonstrated that self-esteem of respondents increased significantly after the operation but their self-concept did not show a significant improvement. However, self-concept in subjects with identity foreclosure, moratorium and achievement improved. This finding is in accord with some and in contrast with a few other studies. For instance, some evidence show that cosmetic surgery helps in improving body image (Crerand, Franklin, & Sarwer, 2008; Soest, Kvaem, Roald, & Skolleborg, 2009; Kamburoglu & Figen, 2007) and health-related quality of life and self esteem (Neto et al., 2007). However, there are some other studies demonstrating that cosmetic surgery did not have a significant effect on self-esteem, quality of life or life satisfaction (Crerand, Franklin, & Sarwer, 2008; Soest, Kvaem, Roald, & Skolleborg, 2009; Meningaud et al., 2003; Bolton, Pruzinsky, Cash, & Persing, 2003).

Low statistical power of the present study indicates that sample size is responsible for insignificant differences between the means. Also, self-esteem of subjects with identity moratorium decreased after surgery and this reduction was statistically significant at $P =$

0.01. Cosmetic surgery could not change the self-esteem of subjects with other identity statuses.

Based on some reports (Lott, 2001; Bishop et al., 2005) subjects with identity diffusion show high levels of impulsions and confusion and have less control over their actions. Additionally, subjects with identity diffusion have small sense of responsibility and exploration and have incompatible confrontational styles, procrastination, and fear prior to making a decision and often make excuses (Berzonsky & Kuk, 2005). Therefore, it seems that cosmetic surgery adds to their confusion and diffusion and further deranges their self-concept. Whereas, subjects with identity moratorium or foreclosure although having problems in perception of identity, their identity is solid and they have a specific self-concept and therefore their self-conceptualization improves after surgery.

In general, results demonstrated that most of the cosmetic surgery candidates had identity achievement, and identity foreclosure ranked second. Self-concept of subjects with identity achievement, moratorium and foreclosure improved at $P = 0.05$ but the self-concept of subjects with identity diffusion did not change significantly. This finding may be explained by the fact that subjects with identity diffusion usually act immaturely. They usually do not follow specific principles and are not bound to their goals or values. They do not try to achieve any goals and are usually not satisfied with their lives. They mostly are lonely since they are not capable of establishing a close and sincere relationship with others. Such people usually do not know what they want to do with their lives and thus they cannot decide whether they like or need cosmetic surgery. That is why they are mostly not satisfied with the result.

Cosmetic surgery candidates who have identity achievement have successfully passed identity crisis and are in peace with them. Such people believe in some values and goals, are satisfied with their lives and know what they want to do with their life. They less commonly experience confusion or anxiety; thus, they accept the changes following cosmetic surgery more willingly and are less affected by opinions of others. Subjects with identity foreclosure have less experienced crisis in their life and are strongly bound by their goals and values. They have an "accessible identity" and therefore better accept the post-operative changes.

Table 2. Results of one way repeated measures ANOVA for pre- and post-operative self-esteem based on the identity status.

		Pre-op	Post-op	F (Surgery)	F (Identity)	F (surgery x Identity)	Statistical power	Eta squared
IdentityDiffusion	No (n=37)	18.08 (3.17)	19.60 (2.48)	1.699	19.511***	0.531	0.110	0.01
	Yes (n=5)	13.28 (4.82)	13.71 (6.44)					
Identity foreclosure	No (n=38)	16.94 (3.91)	18.45 (4.05)	0.440	2.154	0.862	0.148	0.02
	Yes (n=4)	20.50 (1.00)	20.25 (20.25)					
Identity moratorium	No (n=38)	17 (3.93)	18.58 (4.05)	0.097	0.852	1.921*	0.272	0.05
	Yes (n=4)	20 (2.0)	19 (4.24)					
Identity achievement	No (n=37)	17.05 (3.96)	18.59 (4.11)	0.618	0.405	1.043	0.169	0.03
	Yes (n=5)	19 (2.91)	18.80 (3.56)					

* Significant at 0.1; * Significant at 0.05; ** Significant at 0.01; *** Significant at 0.001.

Table 3. Results of one way repeated measures ANOVA for self-concept before and after cosmetic surgery based on the identity status.

		Pre-op	Post-op	F (Surgery)	F (Identity)	F (Surgery x Identity)	Statistical Power	Eta squared
Identity Diffusion	No (n=31)	11.06(9.79)	7.87(9.36)	0.279	7.758**	2.207*	0.304	0.06
	Yes(n=7)	18.43(9.64)	25.14(33.10)					
Identity foreclosure	No(n=38)	11.94(10.27)	11.75(18.25)	1.471	0.023	1.359	0.206	0.04
	Yes(n=4)	15.60(8.35)	6.40(5.59)					
Identity moratorium	No(n=38)	12.03(10.12)	11.75(18.29)	1.309	0.046	1.153	0.181	0.03
	Yes(n=4)	15(9.97)	6.41(4.15)					
Identity achievement	No(n=37)	12.97(9.99)	12.40(18.41)	0.737	1.402	0.495	0.105	0.01
	Yes(n=5)	9.50(10.57)	3.83(2.48)					

* Significant at 0.1; * Significant at 0.05; ** Significant at 0.01; *** Significant at 0.001.

CONCLUSION

Those with identity moratorium although are in “crisis”, still continue to search and explore. They are indecisive and live in hesitation and uncertainty. They are competitive and undecided and do a lot of search for cosmetic surgery. Since they are determined to explore their identity, they accept the changes caused by the cosmetic surgery as a positive change. These patients usually have a lively spirit and are interested in making friends and get close to others. This spirit helps in accepting the changes following cosmetic surgery.

Results demonstrated that frequency of identity foreclosure was higher among male candidates. It seems that male cosmetic surgery candidates with identity foreclosure did not have a chance to explore themselves in the past, thus they turn to cosmetic surgery to compensate their sense of minority, increase their acceptability, add to their values by changing their appearance and tend to their outer beauty in order to overcome their sense of inner worthlessness. Women with identity achievement and foreclosure are interested in cosmetic surgery because they like to seem more successful and attractive.

An interesting finding demonstrated that self-concept of women prior to surgery was poorer than that of men but improved post-operatively. Inversely, self-concept of males decreased significantly after the surgery. Another finding demonstrated that self-concept of subjects older than 25 years of age improved post-operatively while that of the two younger age groups decreased. This can be due to the over-expectation and exaggeration of younger subjects regarding their changed appearance. They usually fantasize about their new look and expect too much from cosmetic surgery. Such an expected drastic change usually does not occur in reality.

Although the financial status and income level of women was lower than those of men, the self-esteem of females increased more significantly than that of males. This issue can be justified by the fact that the socioeconomic class usually affects the attitude and perception of one towards themselves. Also, a correlation exists between greater impressionability and belonging to a low socioeconomic class. The lower the socioeconomic level of the subjects, the higher their impressionability and the need for changing their appearance. Such cases are more impressionable and need to improve their self-esteem. Also, it was revealed that the less the subjects know about their maxillofacial problems and the better their assumption about their maxillofacial status, the better their self-esteem after the operation. In other words, those who believe that their maxillofacial problem is huge show a greater resistance towards change and expect more from the surgery. These subjects usually do not get the result they expect from their surgery.

To this end Kapp-Simon et al. (2015) recently did a study on 203 youth between the ages of 11 and 18 years to identify factors associated with youth satisfaction with surgical procedures performed to address oral or facial conditions. They hypothesized that mental health of youth, participation in decision making, perceived consequences of living with their condition and coping strategies may be associated with satisfaction of past surgeries; a questionnaires were completed by all patients to assess depression, self-esteem, participation in decision making, severity of condition, negative and positive consequences of having a condition, coping, and satisfaction with their operations. Multiple regression analysis showed that participation in decision making, perception of positive consequences of having a condition, and coping accounted for 32% of the variance in satisfaction with past operations ($P < 0.001$). Age, sex, and condition severity were not significantly associated with satisfaction of surgical outcome. Also, depression, self-esteem, and negative consequences of having a condition were not associated with satisfaction with past surgeries either. They concluded that youth should be actively involved in the decision for facial surgery.

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