Evaluation of the Impact of Symptoms of Obsession and Social Physical Anxiety on Tendency to Cosmetic Surgery by the Mediation of Negative Body Image and Neurotic Defense Mechanisms - The Structural Equation Modeling (SEM)

Touraj Hashemi[1], Majid MahmoudAlilou[1], Abbas Bakhshipour[1], Azra Mohammadpanah-Ardakan[2]

[1]Professor, Department of Psychology, University of Tabriz, Tabriz, Iran
[2]PhD Candidate in School of Psychology, University of Tabriz, Tabriz Iran
[2] Instructor, Department of Psychology, Ardakan University, Ardakan, Iran

Corresponding Author:
Azra Mohammadpanah Ardakan, PhD Candidate in School of Psychology, Tabriz University, Tabriz, Iran
Instructor, Department of Psychology, Ardakan University,
Ardakan,
Iran
E-mail:
azramohammadpanah@yahoo.com

Submitted: 18 September 2017
Accepted: 23 November 2017

Int J Behav Sci. 2017; 11(3): 121-127

Abstract

Introduction: The present study was conducted to examine the mediation effect of negative body image and neurotic defense mechanisms regarding the symptoms of obsession and social physical anxiety on a tendency to cosmetic surgery.
Methods: The participants of this causal-correlation descriptive study included 200 people (40 males and 160 females) selected with available sampling method among applicants of cosmetic surgery in Yazd City, Iran. The research instruments were Yale-Brown Obsessive Compulsive Scale (Y-BOCS), Social Physique Anxiety Scale (SPAS), negative beliefs about appearance, defensive style, and scale of acceptance to cosmetic surgery. Analysis method employed in this work was the Structural Equation Modeling (SEM).
Results: Results showed that symptoms including obsession, social physical anxiety, negative body image, and neurotic defense mechanisms were related to the tendency to cosmetic surgery. Accordingly, obsession symptoms indirectly and through negative body image were related to the tendency towards the cosmetic surgery. Moreover, social-physical anxiety indirectly and through negative body image and neurotic defense mechanisms was related to the tendency to cosmetic surgery. An SEM-based conceptual model was fitted in the research.
Conclusion: The obtained Comparative Fit Index (CFI): 0.88, increasing fitting index (IFI): 0.88, normed fitting index (NFI): 0.80, and the root mean square of the approximation (RMSEA): 0.07, showed that the satisfactory fitting of the conceptual model.

Keywords: Obsession, Social Physical Anxiety, Negative Body Image, Neurotic Defense Mechanisms, Cosmetic Surgery

Introduction

Cosmetic surgery represents an extreme form of modern grooming [1]. Gilman (1999) believed that resorting to cosmetic surgery to change the appearance is for reaching its self-integrity and it is a sign of enlightenment or intellectualism. In contrast, Haiken, who has done some studies on the development of cosmetic surgery, refused the assumption that the increase in the number of cosmetic surgeries is due to acceptance of perfection. Rather, this research believes that these changes have psychological rather than physical causes [2]. When the role of social-cultural and psychological factors is discussed on the formation of the beauty and the image of the body, the person is expected to identify himself with respect to the ideals defined in the society [3]. Cosmetic surgery is a transitory process; the transition from one identity to another and to achieve the other points and grades [4]. However, apart from those susceptible to social and cultural stimuli, people with

psychological vulnerability also choose the cosmetic surgery. Therefore, people, especially women, with low self-concept and poor self-esteem try to attract others' attention to make them look prettier. According to the feminist theory, cosmetic surgery has a complex relationship with psychology: Since it cannot be justified on the basis of the physical medical needs, it should be justified in relation to the patient's tendencies; because there is a relationship between good looks and good feelings [5]. One of the predictors of desiring cosmetic surgery is obsessive-compulsive patterns. The practical or obsessive-compulsive disorder is a chronic anxiety disorder that is along with excessive preoccupation about order and arrangement and minor affairs as well as perfectionism; to the extent that it results to the loss of flexibility and performance. Perfectionism in obsessive-compulsive disorder means that people tend to do all of their work in the best possible manner, but often the results are not satisfactory in their views. In some cases, this attribute becomes aggravated and in the form of illness turns to the practical or obsessive-compulsive disorder. In this case, the image they have of themselves is worse than their real image. In terms of the personality, most people who do cosmetic surgery have significant compulsive features [6, 7].

Also, patterns of perfectionism, inflexibility, and obsessive features are observed in these patients, provided that indiscrimination of the diagnosis obsessive-compulsive disorder exists [8]. Several studies have confirmed the positive and negative effects of perfectionism on thoughts, emotions, and behaviors [9]. This perfectionism or great attention to the face details and preoccupation, permanent and inevitable, on apparent real or imaginary defects, offers the tendency to a variety of cosmetic surgery in these patients. In other words, the symptoms of obsessive-compulsive patients do not always cause the tendency to cosmetic surgery directly, but negative self-image of themselves and their bodies leads them to this type of surgery [10].

In addition, physical-social anxiety agent predicts the tendency towards this type of surgery, both directly and indirectly. This term was first scientifically introduced by Hart, Larry, and Rejusky in 1989. Physical social anxiety is an anxiety that people experience in response to the evaluation of their physical body by others.

People with high anxiety tend to avoid situations where their bodies are evaluated by others [11]. Researchers have shown that many factors are involved in the formation and development of social anxiety. For example, Himberg and Baker believing in cognitive errors in people with social anxiety disorder stated that one of the most important cognitive errors is fear of negative evaluation by others. In this regard, Kent and Koehan (2001) have shown that people who suffer from social anxiety disorder are afraid of social situations and avoid such situations because they are vulnerable to negative evaluations by others. When these people are in social situations think that they are negatively monitored, checked, and evaluated by others about their different aspects of behavior, performance, and appearance [12].

Social physical anxiety as one of the problems associated with dissatisfaction with body condition is considered as a subset of social anxiety and that occurs in situations that the individual feels his physical features as a potential source of ridicule or humiliation [13]. In other words, social physical anxiety is a form of social anxiety and emotional dimension of body image and happens when the individual thinks his body physics is negatively evaluated [14]. This type of anxiety is a passive response and shows the concern about how the body is judged by others [15]. People who are dealing with anxiety try to reduce the risk of social exclusion by creating a positive appearance, especially in situations of self-assessment [14].

In this regard, it is noteworthy that even attractive people may also experience this kind of anxiety since their appearance may be different from what is known as an ideal appearance in the society [16]. Therefore, people who identify a gap between proposed and their real appearance will most probably suffer physical dissatisfaction and will experience social physical anxiety accordingly [17]. Lantz and Hardy (1997) found that people with high levels of social physical anxiety will feel more depressed when their physical aspect is shown to others, and subsequently will avoid body-based activities (e.g., aerobic exercise and swimming). Besides, they will try to improve their body through using special methods, which may be harmful to them [18]. In other words, they are trying to control or escape from anxiety using neurotic defense styles. However, in return, other studies state that social physical anxiety is a driving factor for participating in physical and therapeutic activities in order to gain fitness and thus reduce such an anxiety [19].

Regarding the high costs involved in cosmetic surgery, it is vital to consider the effective factors of imposing such costs [2]. As shown in Fig. 1, this study hypothesized that symptoms of obsessive and social physical anxiety directly and through variables such as negative body image and neurotic defense mechanisms, as mediating factors, predict and explain the tendency to cosmetic surgeries.

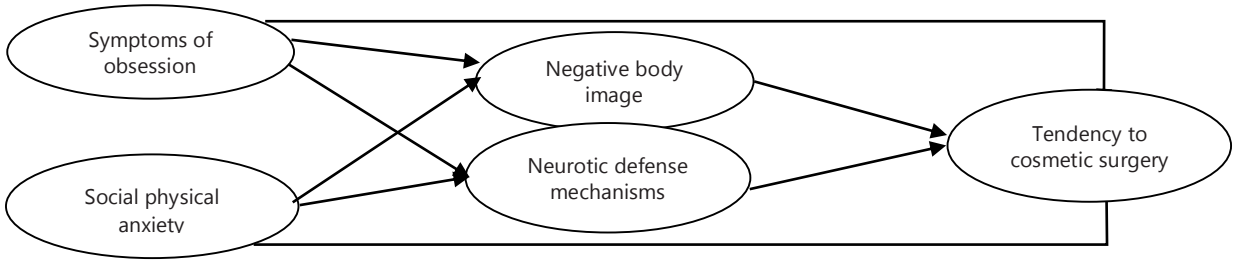

Fig. 1. Hypothetical model of direct and mediated symptoms of OCD (obsessive-compulsive disorder) and social physical anxiety with Tendency to cosmetic surgery

Method

This correlation study is based on a fundamental objective while using the descriptive model of data gathering. Subjects of the study were all cosmetic surgery volunteers who visited skin and beauty centers and clinics in Yazd Province during 2015-2016. The beauty clinics were nasal, breasts, stomach, skin, hair, ears, and facial plastic surgeries. With an available sampling method, 200 people who had visited skin and beauty centers and clinics in the Yazd, Iran were asked to voluntarily participate in this research, ensuring them about the confidentiality of information of subjects and respecting the principles of secrecy. After identifying a person qualified as a participant for the research, the questionnaires were provided after a short explanation about how to complete them. Then, they were provided comprehensive information about the main purpose of the research, and those who did not want to participate in the study were removed from the sample list.

Ethical considerations:

1. All volunteers in the present study expressed their willingness to participate in the study.
2. Participants were allowed to withdraw at any stages of the study.
3. The information obtained from the participants will remain confidential.
4. Also, none of the volunteers were obliged to insert his/her name and family name, and all information was analyzed by code and without a name.

According to Tabachnick and Fidell (20), to estimate the sample size, the following formula should be considered:

$n = 50 + 8x$

X refers to the number of variables, which is 5 for the present study. Thus, the sample size is equal to 8(5) +50 = 90. Also, Kline (21) recommends adding at least 10 cases to the sample size for each parameter (no variables) in the model, which contains a total of 60 parameters; i.e., 60 questions and eventually 70 = 60 + 10 persons. Furthermore, given the fact that there is always the possibility of lowering the subjects and dropping in the research, more samples were considered.

Acceptance of Cosmetic Surgery Scale (ACSS- 15)

This questionnaire, originally developed by Henderson-King and Henderson-King (2005), consists of 15 items that measures various aspects of attitudes toward cosmetic surgery. The answers in this questionnaire are rated on a 6 point scale (1 =strongly disagree to strongly agree =6). The questionnaire has three dimensions including intrapersonal (5 questions reflecting the attitudes about the benefits of cosmetic surgery), social (5 questions measuring social motives cosmetic surgery), and consideration (5 questions reflecting the probability of an individual consideration toward cosmetic surgery). Previous studies related to acceptance of cosmetic surgery scale indicate a high internal consistency and good test-retest reliability after 3 weeks. Also, convergent and discriminant validity of the test has been reported to be significant enough [22]. In this research, Cronbach's alphas obtained for intrapersonal, social, and consideration subscales were 0.8, 0.78, and 0.74, respectively (Farshidfar et al., 2013), suggesting the reliability of the items in this subscale [23]. Also, Cronbach's alpha of this questionnaire was 0.88 in the current study.

Yale-Brown Obsessive-Compulsive Scale (Y-BOCS)

To evaluate the severity of symptoms of obsessive-compulsive disorder, regardless of the type or number of the symptoms, a semi-structured interview called the Yale-Brown Obsessive Compulsive Scale, which was prepared by Goodman et al. was used(1989). We individually prepared and scored 10 main materials, 5 important aspects of obsession, and 5 aspects of compulsions. Items 1 to 5 consider the symptoms of obsessions and items 6 to 10 refer to the symptoms of compulsion. This scale implied two models: self-report and clinician-applicant. For scoring and data analysis purposes, a scale of 10 items scored from 0-4 was used. The scoring range for each subscale (obsessive-compulsive) is from 0 to 20 and for the whole scale is from 0 to 40. When both subscales of the questionnaire were used, OCD patients, patients with severe obsession, and patients with very severe obsession acquire average scores of ≥25, ≥30, and ≥35, respectively. Data relating to the validity and reliability of this scale showed that the reliability of items in 40 patients was 0.98 and the coefficient of internal consistency (Cronbach's alpha) was 0.89. The reliability of this scale based on the retest method was reported to 0.84 within 2 weeks while its discriminant validity with the Beck Depression Inventory and the Hamilton Anxiety Rating Scale were 0.64 and 0.59, respectively [24]. Also, Cronbach's alpha of this questionnaire was 0.87 in this study.

Social Physique Anxiety Scale (SPAS-7)

Social Physique Anxiety Scale, originally invented by Motl and Conroy (2000), can be used to measure anxiety in adults in response to real or perceived assessment of a person's body by other people. The final version of this test contains 7 items and people's responses are graded in a range of 5 options (never = 1 to always = 5). The scale has a correlation coefficient of 0.33 with Interaction Anxiety Scale, 0.35 with Fear of Negative Evaluation Scale, and 0.51 with Cathexis Scale on the body. Moreover, Social physical anxiety scale in the research conducted by Hart et al. (1989) showed a good test-retest reliability and good internal consistency after 8 weeks. Moreover, in this study, Cronbach's alpha of this test was obtained 0.90 [25], which is similar to what (0.90) was obtained in the present study for this questionnaire.

Beliefs about Appearance Scale (BAAS-20)

This scale, which was prepared by Spangler and Stice, has 20 items including negative attitudes about physical appearance, which are reported by patients who suffer from eating disorders. Beliefs scale about the appearance is a self-report tool that measures the thoughts agreement about physical appearance including intrapersonal relationships, progress, self-image, and emotions. The agreement level of any of the categories is graded for a range of scores from 0 to 4 (never to always) on the basis of Likert scale. The internal consistency of scaled items by Cronbach's alpha in three reviewed cases was reported to be α=0.94, α=0.95, and α=0.96, respectively, by Spangler and Stice [26] and α=0.86 by Mohammadpanah Ardakan and Yousefi (2011) [27].

Defense Styles Questionnaire (DSQ)

DSQ was prepared based on the hierarchical pattern of the defenses. DSQ style was first developed by Bond et al. (1983). After several revisions, Andrews et al. (1993) developed a new version called DSQ-40, which includes 40 questions and evaluates 20 defense mechanisms in three mature, neurotic, and immature levels [28].

Mature mechanisms are as follows: sublimation, anticipation, sense of humor, and suppression.

Immature mechanisms include: justification, projection, denying, versatility, non-valuably, the transition to action, somatization, autistic imagination, layer-making, passive aggression, replacement, and isolation.

Neurotic defense mechanisms are pseudo-altruism, reaction formation, rationalization, and rescission.

The scoring scale used in this study is a Likert-form tool in which individuals express their degree of agreement on a 9-point scale for any question. A participant in each of the defense mechanisms obtains a score between 2 and 18. In each of the defense mechanisms that an individual's score is more than 10, it means that the participant uses the mechanism. Individuals gaining the maximum average scores show the defense style [29].

DSQ has been estimated in several countries like Japan, France, Brazil, Portugal, and Iran. Studies in Japan showed that this tool has a concurrent validity with Maudsley Personality Inventory (MPI), and although there is uncertainty in its operative structure, it has a good test-retest reliability [30]. In France, Brazil, and Portugal, it was found that the French and Brazil-Portuguese DSQ-40 versions have a similar psychometric combination with the original scale and this questionnaire is a beneficial and desirable tool with a desirable validity and reliability [29]. The DSQ-40 was also reviewed and normalized by Heydari-Nasab (2006). According to the validity results, it was found that the questionnaire has a high validity like the original version. Moreover, in a research, it was reported that Cronbach's alpha coefficient for each of the mature, immature, and neuroticism styles were 0.75, 0.73, and 0.74, respectively, while the test-retest reliability coefficient with an interval of 4 weeks was 0.82. Based on these findings, it was established that DSQ in study groups had a good credit [29]. It has to be noted that in this study, only questions about neuroticism defense style were used [1, 7, 21, 24,28,32,39, 40].

Results

Statistical methods used in this research are divided into two parts of the descriptive and inferential analysis of findings. In the explanatory section, variables derived from factor analysis with SPSS software (ver. 21) were studied descriptively. Next, using the LISREL software and integration of confirmatory factor analysis (CFA) and structural function models (SEMs), causal relationships between structures were evaluated with inferential analysis. Modeling of structural functions is a strong model to test theories, which is done in two steps. The first step of measurement model or CFA determines how latent variables are measured in the form of more observable variables. In the second step or structural function section, practical relations between latent variables are determined.

In order to describe the data, scattered and centered indices, especially mean and standard deviation, were used (Table 1).

Table 1 shows that:

1) Dispersion of tendency to cosmetic surgery according to the used tools is average to high.
2) Distribution of obsession and social physical anxiety symptoms is average.
3) Distribution of negative body image and neurotic defense mechanism is average to high.

This review was done over five variables used in the path analysis. To test the compatibility of each of the variables mentioned, a working procedure was done to do the above test. The correlation matrix of the studied variables was obtained as Table 2.

Table 1. Descriptive information of the studied variables

Variables	Mean	Std	Number
Tendency to cosmetic surgery	58.2	18.78	200
Symptoms of obsession	11.51	6.43	200
Social physical anxiety	20.09	6.16	200
Negative body image	61.48	14.80	200
Neurotic defense mechanisms	47.69	10.42	200

Table 2. The Correlation matrix of variables that affect the tendency to cosmetic surgery

Variables	The tendency to cosmetic surgery	Symptoms of obsession	Social physical anxiety	Negative body image	Neurotic defense mechanisms
The tendency to cosmetic surgery	1				
Symptoms of obsession	**0.29	1			
Social physical anxiety	**0.53	*0.15	1		
Negative body image	**0.32	**0.28	**0.42	1	
Neurotic defense mechanisms	**0.28	0.07	**0.26	0.06	1

As shown in Table 2, the relation between obsession symptoms, social physical anxiety, negative body image, neurotic defense mechanisms and tendency to cosmetic surgery is positive and statistically significant (P<0.05). The relation between obsession symptoms, social physical anxiety, and negative body image is statistically positive and significant (P<0.05). The relation between social physical anxiety and neurotic defense mechanisms is statistically positive and significant (P<0.05).

The final path based on the standardized coefficients is to fit the supposed model according to indices of Chi-square (χ^2), p-value, Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), and Incremental Fit Index (IFI) (Table 3).

As shown in Table 3, and according to Meyers et al. (2017), when there are at least three indexes in the acceptable range, we can claim that the fitness of the model is good and acceptable. Hence, measuring indices show relative fitness and final model for the tendency to cosmetic surgery is reasonably well fitted. This is while not all the basic model's relations are significant. Therefore, all non-significant relationships were excluded from the model so that the final values of the model parameters be specified. The adjusted model is as follows:

The figure below shows the pattern of relationship between obsession symptoms (including 9 questions), social physical anxiety (including 7 questions), and tendency to cosmetic surgery (including 15 questions) due to factors such as neurotic defense mechanisms (including 7 questions) and negative body image (including 20 questions). Based on the results of the experimental model of psychological factors effective for the tendency to cosmetic surgery, it can be found that obsession symptoms caused by negative body image are effective in the tendency to cosmetic surgery. Therefore, for more observed obsession symptoms, there is more negative body image and this factor provides the background of cosmetic surgery. In other words, a negative body image of 0.19 was caused by the obsession symptoms and was 0.18 for the tendency to cosmetic surgery. Likewise, social physical anxiety is the reason for this tendency due to negative body image and neurotic defense mechanisms. In other words, people with higher levels of social physical anxiety show more negative body image and neurotic defense mechanisms and eventually more tendency to cosmetic surgery. In this relation, the social physical anxiety explains 28 and 30% of changes in negative body image and neurotic defense mechanisms, respectively, in the positive and significant way. On the other hand, the negative body image and neurotic defense mechanisms explain 18 and 33% of changes in the tendency to cosmetic surgery respectively. Furthermore, since the "Goodness of Fit Index (GFI)" of this model is 0.64, it can be stated that this model has a relatively acceptable fit with reality. In addition, the CFI and IFI (0.88), NFI (0.80), and NNFI (0.87) values are more than 0.80 and show a desirable fitness. Also, χ^2 in a meaningful level of 0.00, the χ^2.df ratio is in the desirable range (< 6) and the RMSE (0.07) is less than 0.09, suggesting the fitness of the researcher's model (Fig. 2).

Table 3. Fit indices of the final model for the tendency to cosmetic surgery

Index	Value	Accepted range	Conclusion
χ2	3244	-	The fitness of the Model
Df	1589	-	The fitness of the Model
χ2.df	2.07	<3	The fitness of the Model
P value	0.00	<0.05	Fitness of the Model
RMSEA	0.07	<0.09	The fitness of the Model
NFI	0.80	>0.8	The fitness of the Model
NNFI	0.87	>0.8	The fitness of the Model
CFI	0.89	>0.8	The fitness of the Model
GFI	0.66	>0.8	Relative fitness of the Model
AGFI	0.64	>0.8	Relative fitness of the Model
IFI	0.89	>0.8	The fitness of the Model

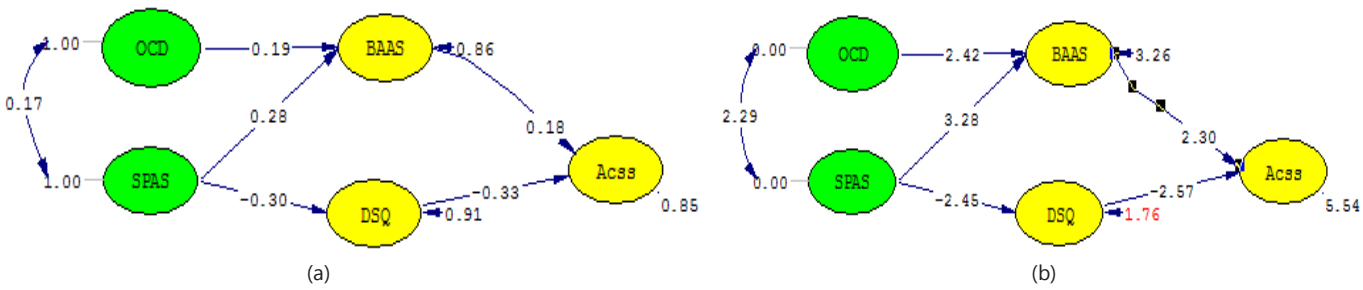

Fig. 2. The adjusted model of the direct and intermediate relationship of obsession symptoms and social physical anxiety with a tendency to cosmetic surgery: a) Estimates value and b) T- values

(Note: OCD: Symptoms of obsession; SPAS: Social physical anxiety; BAAS: Negative body Image; DSQ: Neurotic defense mechanisms; ACSS: Tendency to cosmetic surgery).

Discussion

In order to test the theoretical fitness model with an emphasis on fit indices, we assessed the relative fitness of written model and the experimental data. So, with experimental data, an almost ideal adaptation between the models depicted or structural model is provided and with an emphasis on structural models, a suitable model of the relationship between the dependent and independent variables is designed, and a desirable fitness represents the modeling of structural equations.

Physical appearance is constantly considered as an important social issue. A body without adornment that can be considered as a social body is described with characteristics such as age, sex, disease, pregnancy, and feeding. Manipulating the body to change its appearance becomes a broad social function that no group or culture is an exception for it; thus, this issue has recently attracted the attention of psychologists and sociologists severely [31, 32]. According to the findings of the current study, obsession symptoms, social physical anxiety, negative body image, and neurotic defense mechanisms are the psychological factors that play a role in people's tendency to surgery.

Obsession disorder according to the cognitive theory of McFall & Wollersheim (1979) is caused following the primary threat appraisal (in which the likelihood and severity of negative consequences associated with unpleasant events are overestimated) and the secondary appraisal process (in which the person underestimates its ability to cope with this threat). Practical obsessions, magical rituals, and compulsive behaviors are formed as the most effective way to reduce the perceived threat and inability to deal with it [33]. In other words, people who have more mental ruminations on body image, experience more anxiety and negative body image [34]. Therefore, obsession symptoms due to negative body image can be one of the reasons for cosmetic surgery to fix real or imaginary physical defects. According to Volpe, obsession is divided into two categories of anxiety increaser obsessions (are a part of the immediate response of the individual to provoke anxiety and has secondary effects to increased anxiety obsessions) and anxiety reducer obsessions (occur in response to anxiety and to some extent, and at least for a short period of time, reduces the anxiety) [35]. In this regard, it seems that negative beliefs about appearance and preoccupation about the body, force people to perform cosmetic surgery in an obsessive form, on an urgent basis, allowing him/her free from the anxiety caused by the obsession at least for a short period. Moreover, according to Lee & Kwon in 2003 [36], obsessions are categorized into two subgroups of autogenously and reactive obsessions.

Conclusion

Our findings show that social physical anxiety affects the tendency to cosmetic surgery so that this effect is done by mediating negative body image and neurotic defense mechanisms. Social physical anxiety is a response to others' evaluation of body physics and the person owning it avoids situations based on physical assessment or applies different methods to reduce this kind of anxiety [37]. Social physical anxiety is a type of social anxiety and an emotional aspect of body image. Body image is a psychological experience of the physical body that covers thoughts, beliefs, feelings, and behaviors related to the physical experience of a person [38]. In other words, physical social anxiety arises when a person thinks his body physics is negatively evaluated (14). In other words, negative thoughts about the physical appearance are among of the reasons for continuity and sustainability of people's social physical anxiety and more than that caused by deficiencies in social skills is due to their cognitive distortions and false beliefs about themselves [39]. This type of anxiety is a passive response that reflects the concern about how the body is judged by others [15]. People who deal with this anxiety try to reduce the risk of social exclusion through the creation of a positive appearance, especially in self-assessment situations [14]. Hence, with changing the physical appearance through cosmetic surgery, they are trying to relieve this concern. Also, dissatisfaction and concern of the cosmetic surgery applicants about their appearance and body lead to inaccurate assessments and negative and neurotic defense mechanisms. Defense mechanisms as the unconscious intrapsychic processes oblige protecting themselves against threatening or stressful situations. Actually people organize and survive psychological conditions by avoiding anxiety. Hence, they try to deal with psychological conflicts and can facilitate coping behaviors, but an improper way of using defense mechanisms (like denying, projection, relocation, isolation) can impair psychological development and prevent useful coping responses [27]. Therefore, people with social physical anxiety can try to get rid of negative thoughts and emotions about their appearance through cosmetic surgery as a negative defense mechanism.

In conclusion, it can be stated that cosmetic surgery is a tool for egotism and ego ideal feeling, which is resolved through the pain of being not desirable. The perfectionist standards about appearance are an expectation pressure that is behind the negative physical image of people. In case people cannot achieve their ideal criteria, they try to correct or criticize themselves with the use of undesirable defense mechanisms. Also, factors such as physical symptoms of obsessions and social physical anxiety, in pushing people to this topic play a role in this regard. Overall, it can be stated that although cosmetic surgery is not a magic wand, it is considered to be a facilitator to change one's relationship with the self [40]. Therefore, applicants recognize the toleration of pain and injury (associated with surgery) as a solvation for psychological pains, including feelings of shame because of their physical appearance [1]. Cosmetic surgery with no doubt can improve the quality of life for those with congenital or accident disfigure who have lost their opportunities for happiness, well-being, and performance of life. However, one should also consider the case that there is no apparent deformity; e.g., belly slack, wrinkles around the eyes, or not having a very slender and beautiful nose. The decision to have surgery should not be as an impulsive

decision to change hairstyles and hairdressing in a new manner, but it should be a wise, conscious, and deliberate decision considering all detailed examination of the pros and cons of the surgery [40].

Acknowledgments

The authors would like to thank the experts of Cosmetic and Plastic Surgery in Yazd and especially those who applied for cosmetic surgery who were helpful as participants in this study.

References

1. Northrop, J.M. Reflecting on Cosmetic Surgery: Body image, shame and narcissism. USA and Canada, Publisher: Routledge. 2014.
2. Fraser, S. Cosmetic Surgery, Gender and Culture. New York. 2003. N.Y. 10010, PALGRAVE MACMILAN.
3. Mohammadpanah Ardakan, Yaghoubi, H. & Yousefi, R. [The Personality traits and defensive styles in volunteers of Cosmetic Surgery]. Journal Dermatology and Cosmetic 2014, 3(2): 82-72. [In Persian]
4. Davis, K. "Surgical Passing: Or Why Michael Jackson's Nose Makes us Uneasy", Feminist Theory 4. 2003.
5. Jones, M.R. & Heyes, C.J. "Cosmetic surgery in the age of gender", in Cressida J. Heyes & Meredith Jones (Eds), Cosmetic Surgery: A Feminist Primer, Ashgate, England & USA. 2009.
6. Zojaji, R., Javanbakht, M., Ghanadan, A., Hosien, H., & Sadeghi, H. High prevalence of personality abnormalities in patients seeking rhinoplasty. Otolaryngol Head Neck Surgy 2007, 137(1): 83-7.
7. Moheb, N., Hosseininasab, S.D. & Kolahi, P. [A comparative study of personality disorders among volunteers of cosmetic surgery and ordinary people]. Journal of Woman and Family Studies 2010. 1(3): 91-106. [In Persian]
8. Barahmand, U., Mozdsetan, N., Narimani, M. Body dysmorphic traits and personality disorder patterns in rhinoplasty seekers, Asian Journal of Psychiatry 2010, 3: 194-199.
9. Niknam, M., Fararouyi, M., Kamkar, A., Fouladi, N. & Mohammadi, A. [The comparing perfectionism in patients using rhinoplasty with the control group in Yasouj]. Journal of Tehran University of Medical Sciences (Health payavard) 2013, 6(1): 52-60. [In Persian]
10. Khanjani, Z., Babapour, J. & Saba, G. [Evaluation and comparison of the psychological status and body image of cosmetic surgery applicants with Non- applicants]. Journal of Yazd Shahid Sdoughi University of Medical Sciences 2013, 20(2), 237-248. [In Persian]
11. American Psychiatric Association. [Diagnostic and Statistical Manual of Mental Disorders DSM-5]. 2016. Trans: Rezaei, F., Fakhraie, A., Farmand, A., Niloufari, A., Hashemi Azar, J. & Shamloo, F. Tehran: Arjmand. [In Persian]
12. Anari, A., Shafieetabar, M. & Pouretemad, H.R. [Evaluation and Comparison of social anxiety disorders and shyness in addicted and non-addicted men]. Journal of Addiction Research 2012, 5(17): 7-20. [In Persian]
13. Molt, R.W. & Conroy, D.E. "Validity and factorial invariance of the social physique anxiety scale". Medicine and science in sport and exercise 2000, 32: 1007-1017.
14. Peterson, C. "Body Image in Men: Drive for Muscularity and Social Influence, Body Image Evaluation and Investment and Psychological Well Being", University of Saskatche. 2007, 1-195.
15. Mulazimoglu-Balli, O. & et al. An examination of social physique anxiety with regard to sex and level of sport involvement, Journal of Human Kinetics 2010, 26: 115-122.
16. Brehm. B.A. Understanding Social Physique Anxiety .2005. Retrieved 2013, from: http://www.athleticbusiness.com/articles/art.
17. Kaplan H, Sadock B. [Synopsis of psychiatry behavioral sciences/clinical psychiatry]. Trans Rezaei F. Tehran: Arjmand, 2015. [In Persian]
18. Brown, Tessa R. "Does Social Physique Anxiety Affect Women's Motivation to Exercise." Department of Psychology 2000, 219-224.
19. Nader Mohammadi, M., Assadollahi, E., & Niazfar, M. Ocial Physique Anxiety and its Relation with Body Dysmorphic Disorder, the European Journal of Social and Behavioural Sciences EJSBS 2015, 8: 1736-1746.
20. Tabachnick, B. & Fidell, L.S. *Using multivariate statistics*. NEWYORK: Happer Collins College. 1996.
21. Kline, R.B. Principles and practice of structural equation modeling (3rd ed). New York: The Guilford press. 2011.
22. Henderson-King, D., & Henderson-King, E. Acceptance of cosmetic surgery: Scaledevelopment and validation. Body Image 2005, 2(2): 137-149.
23. Farshidfar, Z., Dastjerdi, R., Shahabizadeh, F. Acceptance of Cosmetic Surgery: Body Image, Self Esteem and Conformity, Procedia- Social and Behavioral Sciences 2013, 84: 238-242.
24. Veale, D. & Wilson R. [Overcoming Obsessive Compulsive Disorder]. Trans Jamalfar S. Tehran: Arasbaran, 2013. [Persian]
25. Cortese J. Determinants of Social Physique Anxiety in Collegiate Female athletes. Thesis submitted to the Department of Educational Psychology and Learning Systems in partial fulfillment of the requirements for the degree of Master of Science, Florida State University. 2008.
26. Spangler DL, Stice E. Validation of the Beliefs about Appearance Scale. Cognitive Therapy and Research 2001, 25: 813-27.
27. Mohammadpanah A, Yousefi R. [Assessment of beliefs about appearance and inferiority feeling in cosmetic surgery candidates]. Dermatology and Cosmetic 2011; 2: 85-97. [In Persian]
28. Sinha, B.K; Watson, D.C. Personality disorder clusters and the defense style questionnaire. Psychology and psychotherapy 2004, 77: 55-66.
29. Fathi Ashtiani, A. & Dastani, M. [Psychological tests: Evaluation of personality and mental health]. Tehran: Beast. 2016. [In Persian]
30. Hayashi M.I., Miyake Y., Minakawa K. Reliability and validity of the Japanese edition of the Defense Style Questionnaire 40. Psychiatry Clin Neurosci 2004, 58(2):152-156.
31. Featherstone, M. Body Modification, London: Sage. 2000.
32. Pitts, V. In the Flesh: The Cultural Politics of Body Modification, New York:Palgrave Macmillan. 2003.
33. Clark, D.A. Cognitive- behavioral therapy for OCD. New York, the Guilford Press. 2004.
34. Etu S.F. & Gray J.J. A preliminary investigation of the relationship between induced rumination and state body image dissatisfaction and anxiety. Body Image 2010, 7:82-5.
35. Tavakoli, S. & Ghasemzadeh, H. [Theories and cognitive - behavioral treatment of OCD]. Journal of Advances in Cognitive Science 2007, 8(1), 54-76. [In Persian]
36. Lee, H.J. & Kown, S.M. Two different types of obsessions: Autogenous obsessions and reactive obsessions. Behavior research and therapy 2003, 41, 11-29.
37. Haase, A.M., Prapavessis H., Owens, R.G. Perfectionism, social physique anxiety and disordered eating: A comparison of elite male and female athletes. Psychol Sport Exerc 2002; 3(4): 209-222.
38. Valizadeh, A. & Ariapour, S. The role of social physical anxiety, body image and self-esteem to predict eating disorders in female athletes, Journal of Research in Medical Sciences 2012, 14(1), 56-60. [In Persian]
39. Tuschen-Caffier B, Kuhl, S. & Bender G. Cognitive-evaluative features of childhood social anxiety in a performance task. Behav Ther Exp Psychiatr 2011. 42, 233-239.
40. Cache, T. [Guide of body image]. trans of Rayegan, N. Tehran: Danzheh. 2012. [In Persian]