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Personality Characteristics of Patients Seeking Cosmetic Rhinoplasty

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Abstract

Background Rhinoplasty is one of the most common cosmetic surgeries performed on the face. Cosmetic surgery is performed not only to change the appearance, level of satisfaction, and self-confidence of the patient, it may also reflect specific personality patterns. The goal of this study was to investigate the personality characteristics of individuals seeking cosmetic rhinoplasty.

Methods Thirty patients referred for rhinoplasty and 30 healthy age- and gender-matched controls were enrolled in this case–control study. All participants filled out the Millon Clinical Multiaxial Inventory 3rd edition and the data were analyzed using ANOVA and Fisher's exact test.

Results Twenty-four (80 %) females and 6 (20 %) males were evaluated. Dependent, histrionic, and narcissistic personality disorders were seen in 2, 3, and 8 patients in the case group, respectively. The number of individuals with narcissistic personality traits was significantly higher in the case group than in the control group ($p < 0.001$).

Conclusion Narcissism is the most common psychological trait that motivates patients to seek a rhinoplasty. Personality disorders are not very common among individuals seeking rhinoplasty in Iran.

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Keywords Rhinoplasty · MCMI-III (Millon) · Personality profile

Introduction

Rhinoplasty is a common cosmetic surgery procedure and that has been performed for almost one hundred years. Even as the number of cosmetic surgical procedures in the US between 1997 and 2007 increased by 114 % [1], the popularity of aesthetic rhinoplasty increased in the last 10 years in Iran, more than in any other country. Individuals in all age groups, especially young females, seek rhinoplasty for various reasons [2, 3].

The face is the most important part of the body. It reflects emotional changes and influences the individual's appearance and acceptability in society [1]. By improving the appearance of a person, facial cosmetic surgery, especially rhinoplasty, can improve the mental, emotional, and psychosocial functioning and well-being of that patient in the long term, by boosting self-confidence and self-esteem and even improving the professional life of the patient [4–6].

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Different demographic, social, and psychological factors have been proposed as predictors for requesting cosmetic surgeries such as rhinoplasty [7]. However, the factors that affect the probability of seeking cosmetic surgery vary with the procedure, culture, and religion of a society [2]. One of these factors is the mental health status of the individual requesting aesthetic rhinoplasty. Although most individuals requesting rhinoplasty are mentally healthy, some suffer from psychological problems that could complicate the treatment process and affect patient outcome and satisfaction.

A previous study in Iran did not find any relationship between mental health, self-concept, and requesting cosmetic rhinoplasty [8]. In our previous study in Iran, the most common personality trait in individuals seeking rhinoplasty was obsessiveness–compulsiveness (23 %) [9]. Another Iranian study showed a greater prevalence of body dysmorphic disorder as well as higher scores for anxiety, depression, and social dysfunction in the case group compared to controls [2].

There appears to be a significant relationship between the psychological characteristics of an individual and the request for and satisfaction from cosmetic rhinoplasty. It is believed that the presence of some psychological and personality characteristics could predict the likelihood of future requests cosmetic surgery and its poor outcome. We previously investigated the relationship between personality disorder and satisfaction with the outcome of cosmetic surgery. The present study aimed to identify personality characteristics of individuals seeking aesthetic rhinoplasty.

Materials and Methods

We conducted this case–control study with 30 patients seeking rhinoplasty and 30 healthy controls who did not undergo rhinoplasty and were referred to a private clinic in Mashhad in 2009. Consecutive individuals between 18 and 55 years of age with a basic level of literacy (at least third grade of guidance school) and who requested cosmetic rhinoplasty for the first time were included in the study. Those with brain disorders, significant psychiatric disorders (such as major depressive disorder), and a history of drug use in the preceding year and other indications for rhinoplasty rather than cosmetic reasons were excluded. The controls were selected randomly from healthy individuals who were referred to the clinic and did not have a history of rhinoplasty. Cases and controls were sex- and age-matched.

The study protocol was approved by the local institutional review board (IRB) and all participants gave informed consent before enrollment in the study.

Table 1 Demographic characteristics of study participants

	Case group [*n* (%)]	Control group [*n* (%)]
Gender (F/M)	24 (80)/6 (20)	24 (80)/6 (20)
Age (years)		
≤24	15 (50)	20 (66.7)
≥25	15 (50)	10 (33.3)
Marriage		
Single	12 (40)	16 (53.3)
Married	18 (60)	14 (46.7)
Education level		
Diploma	15 (50)	26 (86.7)
Bachelor degree and higher	15 (50)	4 (13.3)

Table 2 Status of personality disorders in the study participants

Personality disorder	Cases [*n* (%)]	Controls [*n* (%)]
Schizoid personality disorder	0 (0.00)	0 (0.00)
Schizotypal personality disorder	0 (0.00)	0 (0.00)
Avoidance personality disorder	0 (0.00)	0 (0.00)
Dependent personality disorder	2 (6.7)	0 (0.00)
Histrionic personality disorder	0 (0.00)	2 (6.7)
Narcissistic personality disorder	0 (0.00)	0 (0.00)
Antisocial personality disorder	0 (0.00)	0 (0.00)
Obsessive–compulsive personality disorder	2 (6.7)	0 (0.00)
Borderline personality disorder	0 (0.00)	0 (0.00)
Paranoid personality disorder	0 (0.00)	0 (0.00)

Demographic data were collected via a questionnaire designed by us. The Millon Clinical Multiaxial Inventory 3rd edition (MCMI-III), a self-administered inventory for assessment of clinical and personality disorders [10, 11], was used to assess the personality of the participants. It is composed of 175 true–false questions and usually takes 25–30 min to complete [10, 11]. The total score of the MCMI-III inventory is 29 scales, including 14 personality scales, 10 clinical syndrome scales, and 5 correction scales that show the patient's approach to the test [11].

Data Analysis

SPSS software version 17.00 for Windows (SPSS, Inc., Chicago, IL, USA) was used for data analysis. Data are presented as numbers and percentages for categorical data and mean and standard deviation (SD) for quantitative data. Fisher's exact test was used to compare categorical data between the two groups. A $p < 0.05$ was considered as significant.

Table 3 Personality traits in the study participants

Personality trait	Cases [*n* (%)]	Controls [*n* (%)]	*p*
Depressive personality trait	1 (3.3)	1 (3.3)	1.00
Dependent personality trait	2 (6.7)	0 (0.00)	–
Histrionic personality trait	3 (10.00)	5 (16.7)	0.44
Narcissistic personality trait	8 (26.7)	1 (3.3)	<0.001
Manic personality trait	1 (3.3)	0 (0.00)	–
Obsessive–compulsive personality trait	1 (3.3)	2 (6.7)	0.27
Borderline personality trait	1 (3.3)	0 (0.00)	–
Major depression personality trait	1 (3.3)	0 (0.00)	–

Results

Demographic characteristics of all study participants is presented in Table 1. Most of the participants (80 %) were female (24 females and 6 males in each group) and aged 24 years or younger (58.3 %).

The personality disorders of the two study groups obtained by the MCMI-III inventory are given in Table 2. Both dependent and obsessive–compulsive personality disorders were identified in 6.7 % of the rhinoplasty group but not in the control group.

Table 3 presents the personality traits in the cases and controls. Dependent, histrionic, and narcissistic personality traits were seen in 2, 3, and 8 patients of the case group, respectively, with the narcissistic personality trait the common trait among the rhinoplasty group. The number of individuals with a narcissistic personality trait was significantly higher in the case group than in the control group ($p < 0.001$) (Table 3). Other personality and psychiatric disorders were not observed in either cases or controls.

Discussion

In this study, the prevalence of narcissism in the rhinoplasty group was significantly higher than in the control group. In addition, dependent and obsessive–compulsive disorders were seen only in the rhinoplasty group.

In our previous study, obsessiveness was the most common personality trait in patients seeking rhinoplasty and it was more prevalent in the case group than in the control group [9]. In the present study, the narcissistic trait was the most frequent trait at 26.7 %, which is similar to the rate reported by Ghalehbandi et al. study done in Iran [12]. Obsessive–compulsive disorder was seen only in the case group with a prevalence rate of 6.7 %, which is consistent with our previous report [9] and the Afkham-Ebrahimi et al. study [13] done in Iran as well, but in contrast to the Naraghi et al. report from Iran [14]. The difference in the findings of our present and previous studies may be due to the difference in the study methods used. To identify the personality characteristics of the participants, we used the MCMI-III inventory in the present study and the Minnesota Multiphasic Personality Inventory (MMPI) in the earlier study [9]. It appears that the sensitivity of the MCMI-III inventory to detect the narcissism personality trait is greater than that of the MMPI, that the accuracy of the MMPI in detecting the obsessive–compulsive trait is higher than that of the MCMI-III, and that these inventories may even overestimate the presence of these two traits.

In another study done in Iran by Zahiroddin et al. [8], the Roger's Self-Concept Questionnaire and General Health Questionnaire (GHQ-28) were used to identify the self-concept and mental health of the patients requesting rhinoplasty. The study showed no significant difference in the mental health and self-concept between cases and controls. The authors also found no significant difference in depression, anxiety, somatic complaints, and maladjustment between the two groups and concluded that there is no relationship between mental health and self-concept in patients requesting cosmetic rhinoplasty [8].

Barahmand et al. [15] administered the Multidimensional Body-Self Relations Questionnaire (MBSRQ-AS), the GHQ-28, and the MCMI-III in their study and showed that there is a relationship between positive evaluation of appearance and histrionic and narcissistic traits and between dissatisfaction with body parts and obsessive–compulsive traits [15].

The Javanbakht et al. study [2] showed a significant difference in the total GHQ-28 as well as its subscales, including depression, anxiety, and social dysfunction, between cases and controls, which is in contrast to the Zahiroddin et al. study [8] which used the same tool.

Rastmanesh et al. [16] showed that the body mass index (BMI) of veiled and nonveiled women was identical, the veiled group had less body dissatisfaction, and the demand for cosmetic rhinoplasty was significantly higher in nonveiled women (19.6 %) than in moderately veiled (12.9 %) and completely veiled (13.6 %) women, while the confidence level of the latter group was the highest [16].

In contrast to our and other studies conducted in Iran, a study of a cohort of Norwegian women with a 13-year follow-up showed that symptoms of depression and anxiety and a history of deliberate self-harm, parasuicide, and illicit drug use predicts that the subject will undergo cosmetic surgery in the future [17]. However, this study included other cosmetic surgeries besides rhinoplasty [17].

Another study [18] reported that all male and female patients could be classified into different groups (e.g., narcissistic, impulsive, talkative), but the study could not

find any significant relationship between the classification and the patients' satisfaction or demographic variables. The Goin et al. [19] study showed that although there was no great difference in their responses to the questionnaires, female patients were more inclined to be in the obsessive–compulsive, depressive, anxiety, phobia, and sensitive characteristic domains [18, 19]. These traits had in close relationship with the high level of preoperative anxiety in the patients. Most of these studies used the MMPI questionnaire, which is the main difference with our study.

The variability of the findings of the different studies on this topic in Iran and other countries may be due to the use of different assessment tools and questionnaires, the different cultures and religious beliefs in different parts of the country and the world, and the type of cosmetic surgery performed.

The small sample size is the main limitation of our study. Using a larger sample size may have shown a significant difference between the two groups. Future case–control and prospective population-based studies with large sample sizes and different validated personality assessment tools are needed to further confirm our findings.

Conclusion

Our study showed that although cosmetic rhinoplasty surgery is common in Iran, there is no significant difference in the prevalence of major personality disorders between rhinoplasty seekers and controls. However, the rate of the narcissism trait is significantly higher in patients seeking rhinoplasty and it is the most common personality trait in these patients. It seems that narcissism is the most common psychological motivation for cosmetic rhinoplasty in our patients.

Conflict of interest The authors have no conflicts of interest to disclose.

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