



## ARAŞTIRMA/RESEARCH

### Personality traits in aesthetic surgery patients

Estetik cerrahi hastalarında kişilik özellikleri

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#### Abstract

**Purpose:** It has been known that psychological factors have an important effect on the decision to undergo aesthetic surgery. In this study, we aimed to test the hypothesis that the personality traits of people admitted for aesthetic surgery differ from those of people who have never planned to undergo aesthetic surgery in their lives.

**Material and Methods:** Forty-seven patients who were referred to the outpatient clinic of the Faculty of Medicine, Department of Plastic, Reconstructive, and Aesthetic Surgery, Kirikkale University to undergo aesthetic surgery were enrolled in the study. Forty-three subjects who neither underwent nor planned to undergo aesthetic surgery at any time in their lives were included in the study as a control group. Psychometric evaluation of the patients and the control group was conducted using the Turkish version of the Minnesota Multiphasic Personality Inventory (MMPI).

**Results:** Taking 65 as a cut-off point, the ratio of patients who scored  $\geq 65$  on the hysteria subscale of the MMPI was found to be significantly higher in the surgery group than in the control group and the ratio on social introversion subscale was also higher in the patient group than in the control group, very closely approaching significance.

**Conclusion:** It should be kept in mind that people who have personality traits that can be partially improved with psychiatric treatment, such as social introverted, lonely, timid, shy, and hysterical and feel the need for validation by others, may be more often admitted for aesthetic surgery.

**Key words:** Aesthetic surgery, personality, hysteria, psychological factors

#### Öz

**Amaç:** Estetik cerrahi yaptırma kararını etkileyen önemli faktörlerden birinin kişilerin psikolojik durumları olduğu uzun süredir bilinmektedir. Bu çalışmada estetik cerrahi için başvuran hastaların kişilik özelliklerinin estetik cerrahi yaptırmamış ve yaptırmayı planlamayan hastalardan farklı olduğu hipotezini sınamayı amaçladık.

**Gereç ve Yöntem:** Kirikkale Üniversitesi Tıp Fakültesi Plastik, Rekonstrüktif ve Estetik Cerrahi Polikliniğine estetik cerrahi yaptırmak nedeni ile başvuran toplam 47 hasta ve estetik cerrahi yaptırmamış ve yaptırmayı planlamayan 43 kişi kontrol grubu olarak alındı. Katılımcıların psikometrik değerlendirilmesi evet yada hayır şeklinde cevaplanan 566 cümleden oluşan Minnesota Çok yönlü Kişilik Envanterinin (MMPI) Türkçe versiyonu ile yapılmıştır.

**Bulgular:** Kesme değeri olarak 65 alındığında histeri alt testinde 65 ve üzeri puan alan hastaların oranının kontrol grubuyla karşılaştırıldığında anlamlı derecede yüksek ve sosyal içe dönüklük alt testinde ise bu oranın anlamlığa yakın derecede hasta grubunda daha yüksek olduğu saptandı.

**Sonuç:** Özellikle sosyal içe dönük, yalnız, ürkek, çekingen ve histerik yani başkaları tarafından onaylanma gereksinimi hisseden ve belki de psikiyatrik tedavi ile kısmen de olsa düzelebilecek kişilik özelliklerine sahip bireylerin daha fazla estetik cerrahi arayışında buldukları göz önünde tutulmalıdır.

**Anahtar kelimeler:** Estetik cerrahi, kişilik, histeri, psikolojik durum

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## INTRODUCTION

Psychological factors have an important effect on the decision to undergo aesthetic surgery<sup>1</sup>. The decision to undergo aesthetic surgery is motivated by the patient's low self-esteem<sup>2,3</sup>. Self-esteem can be defined as one's feelings of value, diligence, effectiveness, and success about oneself<sup>4</sup>. One of the important factors affecting the evolution of self-esteem is having a positive perception of one's physical appearance<sup>5,6</sup>. Therefore, it has been accepted that the aim of aesthetic surgery is to improve the patient's self-esteem<sup>1</sup>. Nonetheless, surgery does not always improve the patient's self-esteem and confidence<sup>7-9</sup>. As patient satisfaction has been considered the benchmark of a successful surgery, these types of patients can cause problems for cosmetic surgeons<sup>1</sup>. These data have shown that the most important factor that can influence the decision to undergo cosmetic surgery is the self-esteem of a person.

Because of the risk of poor outcomes, it is necessary to perform a psychiatric evaluation before a patient undergoes cosmetic surgery<sup>10</sup>. In view of the strong relationship between personality traits and self-esteem, we aimed to investigate the personality traits of aesthetic surgery patients. We hypothesized that the personality traits of aesthetic surgery patients would be different from those of people who have not planned to undergo aesthetic surgery.

## MATERIAL AND METHODS

### Subjects

This prospective clinical study was performed in accordance with the guidelines for human subjects in research set by the Ethical Committee of the Kirikkale University (Date: 18/02/2014 Number: 06/01).

Forty-seven patients who were referred to the outpatient clinic of the Faculty of Medicine, Department of Plastic, Reconstructive, and Aesthetic Surgery, Kirikkale University to undergo aesthetic surgery were enrolled in the study. The participants were included consecutively from the Plastic, Reconstructive, and Aesthetic Surgery outpatient clinic. The patients were provided with details of the study to which they gave a written informed consent. The same psychiatrist performed a psychiatric examination of all patients. To

determine the axis I disorders, the Structured Clinical Interview For Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV)<sup>11</sup> Axis I Disorders (SCID-I)<sup>12,13</sup> was used. Forty-three age- and gender- matched people who had not planned any aesthetic surgery were included in the study as the control group.

### Measurement tools

#### Structured Clinical Interview For DSM-IV Axis I Disorders (SCID-I)

SCID-I was designed for psychiatrists to determine DSM-IV Axis-I disorders<sup>12</sup>. Turkish validity and reliability of the SCID-I has been performed by Corapcioglu et al.<sup>13</sup>. We used the Turkish version of the SCID-I to diagnose DSM-IV Axis-I disorders.

#### Minnesota Multiphasic Personality Inventory (MMPI)<sup>14</sup>

Psychometric evaluation of patients and controls was conducted using the Turkish version of the MMPI. The MMPI consists of 566 statements answered as either "true" or "false." In a standard profile, the MMPI consists of three "validity scales" and ten "personality scales." The validity scales consist of lie, fake, and defensive responses and they validate each profile. Subjects scoring beyond the predetermined limits on these scales are considered to have answered the test with a bias, thus invalidating the results of the personality scales. In this study, there were no biased profiles. The personality scale score characteristics are based on psychodiagnostic categories. Although they are not considered indicators of psychopathology per se, the personal characteristics are moderately related to the content description of the category.

The personality scales of the MMPI are hypochondriasis, depression, hysteria, psychopathic deviate, masculinity/femininity, paranoia, psychasthenia, schizophrenia, hypomania, and social introversion. The results of the MMPI test are expressed in standardized t scores. Thus, a scale score is considered indicative of psychological dysfunction when the t value is  $\geq 65$ . We dichotomously classified each individual subject in terms of whether or not each scale fell within the clinically elevated range. Elevation was defined as a t score of  $\geq 65$ . The absolute scores were the mean of the standardized t scores. The validity and reliability

of the Turkish version of the MMPI has been assessed by Erol<sup>15</sup>, Ceyhun<sup>16</sup> ve Savaşır<sup>17</sup>.

### Statistical analysis

The “Statistical Package for Social Sciences” (SPSS/PC 17.0)<sup>18</sup> package program was used to analyze the orthogonal and correlation parameters<sup>19</sup>. An independent-samples t-test was performed to determine the statistical significance of the differences between the patient and control groups for the scores on subscales of the MMPI. The chi-square test was performed to analyze the differences between the two groups for the categorical variables.

## RESULTS

Forty-seven patients were accepted into this study; however, the variables of only 41 patients were included in the statistical analysis because the MMPI results for 6 of the patients were invalid. The patients' various reasons for admission were rhinoplasty (n = 22, 53.7%), reduction

mammoplasty (n = 9, 22.0%), prominent ear (n = 6, 14.6%), laser lipolysis (n = 1, 2.4%), blepharoplasty (n = 1, 2.4%), augmentation mammoplasty (n = 1, 2.4%), and jinecomasty (n = 1, 2.4%). Twenty-nine female and 12 male patients were included in the study as the patient group. The control group consisted of 11 males and 32 females. The mean ages of the patient and control groups were 25.61 ± 9.36 and 25.74 ± 8.34, respectively. There was no difference in the mean age between the groups (p = 0.94). In addition, the gender distribution across groups did not differ ( $\chi^2 = 0.143$ , df = 1, p = 0.70). The mean scores for hypochondriasis, depression, hysteria, psychopathic deviate, paranoia, and hypomania were significantly higher in patients than in controls (Table 1). Taking 65 as a cut-off score, the proportion of patients who scored ≥65 on the hysteria subscale was found to be significantly greater in the surgery group than in the control group. Furthermore, the proportion of patients who scored ≥65 on the social introversion subscale was also greater in the surgery group than in the control group, approaching significance (Table 2).

**Table I. Means (SD) of the sample elevated (t≥65) for MMPI clinical scales in patients and controls (MMPI: N: Number SD: Standart Deviation MMPI: Minnesota Multiphasic Personality Inventory)**

MMPI	Patients n=41 Mean ±SD	Controls (n=43) Mean ±SD	p
Hypochondriasis	51.6±10.3	40.3±19.6*	0.001
Depression	49.82±9.02	41.62±14.8&	0.003
Hysteria	52.31±11.15	41.0±15.29#	0.000
Psychopathic deviate	49.2±10.8	42.9±14.7∞	0.029
Masculinity/femininity	55.9±9.0	50.3±16.8	0.061
Paranoia	49.21±10.13	39.4±19.0 <sup>β</sup>	0.004
Psychasthenia	47.8±9.52	44.0±12.2	0.119
Schizophrenia	48.0±8.63	44.9±14.8	0.244
Hypomania	51.34±9.01	45.2±16.9 <sup>α</sup>	0.041
Social introversion	49.04±11.56	44.1±12.8	0.067

**Table 2. Comparison of percentage of sample elevated (t≥65) for MMPI clinical scales (N: Number MMPI: innesota Multiphasic Personality Inventory)**

MMPI	Patients n=41 % elevated	Controls (n=43) % elevated	p
Hypochondriasis	14.6	11.6	0.68
Depression	9.8	2.3	0.20
Hysteria	12.2	0	0.02
Psychopathic deviate	12.2	4.7	0.26
Masculinity/femininity	12.2	23.3	0.19
Paranoia	4.9	0	0.24
Psychasthenia	7.3	2.3	0.35
Schizophrenia	4.9	4.7	1.0
Hypomania	7.3	7.0	1.0
Social introversion	9.8	0	0.05

## DISCUSSION

In this study, it was found that the proportion of patients who scored  $\geq 65$  on the hysteria subscale was significantly greater in the patient group than in the control group. In addition, the proportion of patients who scored  $\geq 65$  on the social introversion subscale was greater in the surgery group than in the control group, approaching statistical significance. These results contradict recent literature from Turkey. In that study<sup>20</sup>, it was found that the number of patients who displayed abnormal MMPI hypomania and paranoia subscale scores was significantly higher in the surgery group than in the control group. The difference in the results between the two studies can be explained by the fact that Babuccu et al.<sup>20</sup> included only rhinoplasty patients as well as by the different methodologies employed in the two studies and the small sample size included in our study.

In this study, the mean hypochondriasis, depression, hysteria, psychopathic deviate, paranoia, and hypomania subscale scores of the surgery patients were significantly higher than those of the control group. Moreover, this study showed that women were referred for aesthetic surgery more often than men<sup>21</sup>. This result was concordant with the literature and also with a recent study<sup>20</sup> conducted in rhinoplasty patients by Babuccu et al.

Persons who score high on the hysteria subscale may show physical symptoms in response to stress. They are unaware of their own feelings. They also tend to be self-centered, selfish, and narcissistic persons. They also seek attention and love from other people. These people feel that they are not accepted by others. Persons who score high on the social introversion subscale can be defined as insecure and lonely persons. They also look down on themselves. They care about the ideas of other people<sup>17</sup>. These personality traits demonstrate that the people who possess these characteristics have low self-esteem. Because people who have low self-esteem feel worthless and inadequate about themselves, they have no self-confidence<sup>4</sup>.

Physical appearance has long been known to be important in social relationships<sup>22</sup>. Dealing with physical appearance is a very natural consequence of people who are socially introverted and insecure seeking interest from others. The results of this study are consistent with the literature, which states

that the aim of aesthetic surgery is to correct the self-esteem of individuals seeking aesthetic surgery because the data show that individuals with low self-esteem are admitted for aesthetic surgery more frequently<sup>1</sup>.

The meaning of this result was that patients who had been referred to the Plastic, Reconstructive, and Aesthetic Surgery outpatient clinic for any aesthetic surgery could have been there for nonspecific physical complaints or defensive denial of emotional/interpersonal problems. Some of these personality traits can be treated with psychotherapy<sup>23,24</sup>. It should be kept in mind that some of the patients who were admitted to the aesthetic surgery clinic may have personality traits that can be improved with psychotherapy. Evaluating the personality traits of aesthetic surgery patients seems to be important in aesthetic surgery clinics because the success of the surgery is measured in terms of patient satisfaction.

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## REFERENCES

1. Ericksen WL, Billick SB. Psychiatric issues in cosmetic plastic surgery. *Psychiatr Q.* 2012;83:343-52.
2. Sarwer DB, LaRossa D. Body image concerns of breast augmentation patients. *Plast Reconstr Surg.* 2003;112:83-90.
3. Hollyman JA, Lacey JH, Whitfield PJ, Wilson JSP. Surgery of the psyche: a longitudinal study of women undergoing reduction mammoplasty. *Br J Plast Surg.* 1986;39:222-4.
4. Özkan İ. Benlik saygısını etkileyen etkenler. *Düşünen Adam.* 1994;7:4-9.
5. Slevic J, Tiggemann M. Attitudes toward cosmetic surgery in middle-aged women: body image, aging anxiety, and the media. *Psychol Women Q.* 2010;34:65-74.
6. Barlas ÜG, Karaca S, Onan N, Öz YC, Gürkan A, Işık I et al. Estetik cerrahi hastalarında beden imajı, işlevsel olmayan tutumlar ve depresyon. *Turk Plast Surg.* 2014;22:108-13.
7. Kamburoğlu HO, Özgür F. Postoperative satisfaction and the patient's body image, life satisfaction, and self-esteem: a retrospective study comparing adolescent girls and boys after cosmetic

- surgery. *Aesthetic Plast Surg.* 2007;31:739-45.
8. Pruzinsky T. Psychological factors in cosmetic plastic surgery: Recent developments in patient care. *Plast Surg Nurs.* 1993;13:64-9.
  9. Wengle HP. The psychology of cosmetic surgery: Old problems in patient selection in a new way—part 2. *Ann Plast Surg.* 1986;16:487-93.
  10. Eriş Y, İkiz FE. Ergenlerin benlik saygısı ve sosyal kaygı düzeyleri arasındaki ilişki ve kişisel değişkenlerin etkileri. *Turkish Studies.* 2013;8:179-93.
  11. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Washington, DC, American Psychiatric Association, 2000.
  12. First MB, Spitzer RL, Gibbon M, Williams JBW. Structured Clinical Interview for DSM-IV Axis I Disorders Clinical Version. Washington, American Psychiatric Press, 1997.
  13. Corapcioglu A, Aydemir O, Yıldız M, Esen A, Koroglu E. DSM-IV eksen 1 ruhsal bozukluklarına göre Türkçe yapılandırılmış klinik değerlendirmenin güvenilirliği. *İlaç ve Tedavi Dergisi.* 1999;12:33-6.
  14. Dahlstrom GW, Welsh GS, Dahlstrom EL. An MMPI Handbook. Minneapolis, University of Minnesota Press. 1972.
  15. Erol N. Ülkemizde psikiyatrik hastalarda Minnesota Çok Yönlü Kişilik Envanterinin geçerlik araştırması. *Türk Psikoloji Dergisi.* 1982;4(14):15-23.
  16. Ceyhun B, Oral N. MMPI Değerlendirme Kitabı. Ankara: Bilimsel Tıp Yayınevi. 1998.
  17. Savaşır I. Minnesota Çokyönlü Kişilik Envanteri El Kitabı. Ankara, Sevinç Matbaası, 1981.
  18. Tabachnick BG, Fidell LS. Using Multivariate Statistics. 3rd ed. New York, Harper Collins, 1996.
  19. Norušis MJ (editor). Cluster analysis. In *Spss 17.0 Statistical Procedures Companion*. Upper Saddle River, NJ: Prentice Hall. 2008.
  20. Babuccu O, Latifoglu O, Atabay K, Oral N, Cosan B. Sociological aspects of rhinoplasty. *Aesthetic Plast Surg.* 2003;27:44-9.
  21. Sinno S, Lam G, Brownstone ND, Steinbrech DS. An assessment of gender differences in plastic surgery marketing in the United States: are we neglecting our male patients? *Aesthet Surg J.* 2016;36:107-110.
  22. Walster E, Aronson J, Abrahams D. Importance of physical attractiveness in dating behaviour. *J Pers Soc Psychol.* 1966;4:508-16.
  23. Mielimaka M, Rutkowski K, Cyranka K, Sobański J, Müldner-Nieckowski Ł, Dembińska E et al. Effectiveness of intensive group psychotherapy in treatment of neurotic and personality disorders. *Psychiatr Pol.* 2015;49:29-48.
  24. Bialas A. Psychotherapy effectiveness and the possibility of personality traits changes depending on the patients' age. *Arch Psychiatry Psychother.* 2009;11:11-9.