



# Assessment of attitudes and goals regarding cosmetic procedures among individuals aged 18 to 28

18-28 yaş arası bireylerin kozmetik işlem tutum ve hedeflerinin değerlendirilmesi

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## Abstract

**Background and Design:** The number of cosmetic procedures is increasing, and currently, young people are undergoing more procedures. Personal and social factors underlie this, and social media has been added. This study evaluates the judgements of young individuals between 18 and 28 years old about their faces and cosmetic procedures from a dermatological aspect.

**Materials and Methods:** Individuals aged 18 to 28 who visited our clinic were included. The data collected using the prepared questionnaire were analyzed using SPSS 25.0. The statistically significant p value is below 0.05.

**Results:** Individuals who desire facial changes report higher levels of dissatisfaction. Women are more likely to express dissatisfaction and desire cosmetic procedures. Childhood teasing is associated with a greater desire to undergo surgery. Personal opinions and social influences play a significant role in decision-making. Income, education, and family factors may influence perceptions of cosmetic procedures. Dissatisfaction with appearance is associated with cosmetic procedures.

**Conclusion:** Cosmetic procedures are positively received in the 18-28 age group. Personal opinion is the most critical factor in decision-making, but social circles and the internet are also influential. The scores were similar in terms of necessary, luxury, and unnecessary. Individual expectations are at the forefront rather than social media and the internet's influence. Healthcare institutions are the primary source for consultation and treatment, but the internet is the second most common source of information.

**Keywords:** Cosmetic surgery, attitude, acceptance, adolescents

## Öz

**Amaç:** Kozmetik işlem sayısı her geçen gün artmaktadır. Günümüzde gençler de artan sayıda kozmetik işlem yaptırmaktadır. Bu talebin altında yatan kişisel ve sosyal etmenlerin yanısıra sosyal medya da eklenmiştir. Çalışmada 18-28 yaş grubundaki gençlerin kendi yüzüyle ve kozmetik işlemlerle ilgili yargılarını dermatolojik bakış açısıyla değerlendirmek hedeflenmiştir.

**Gereç ve Yöntem:** Çalışmaya kliniğimize başvuran 18-28 yaş arası bireyler dahil edilmiş ve veriler internet üzerinden iletilen anketle toplanmıştır. Veri analizi SPSS 25.0 ile yapılmıştır. İstatistiksel olarak anlamlı p değeri  $p < 0,05$ 'tir.

**Bulgular:** Yüzünde değişiklik isteyen bireyler daha yüksek düzeyde memnuniyetsizlik bildirmektedir. Kadınlarda memnuniyetsizlik ifade etme ve kozmetik işlem talebi daha yüksektir. Çocukken alay edilmesi, ameliyat olma isteği ile ilişkilidir. Kişisel görüşler ve sosyal etkiler karar vermede önemli rol oynamaktadır. Gelir, eğitim ve ailevi faktörler kozmetik işlemlere ilişkin algıları etkilemektedir. Kişinin dış görünüşünden memnun olmaması kozmetik işlemleri düşünmesi ile ilişkilidir.

**Sonuç:** Kozmetik prosedürler 18-28 yaş grubunda olumlu karşılanmaktadır. Karar vermede kişisel görüş en kritik faktör olmakla birlikte, sosyal çevre ve internet de etkilidir. İhtiyaç, lüks ve gereksiz görme açısından benzerdir. Hedeflerde sosyal medya ve internetin etkisinden ziyade bireysel beklentiler ön plandadır. Sağlık kurumları danışma ve tedavi için birincil kaynaktır, ancak internet ikinci en yaygın bilgi kaynağıdır.

**Anahtar Kelimeler:** Kozmetik cerrahi, tutum, kabullenme, genç yetişkinlik

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## Introduction

The demand for minimally invasive cosmetic procedures is constantly increasing<sup>1</sup>. In a study conducted to understand this growing demand and reveal the reasons, it was found that being dissatisfied with one's physical appearance, being ashamed of one's body, being afraid of having an unattractive appearance, and being a woman were associated with the demand for cosmetic procedures<sup>2</sup>. The desire to be accepted by society is another factor that leads to cosmetic procedures<sup>3</sup>. Frequent publications about appearance in the media also direct people to cosmetic procedures and make these procedures more acceptable<sup>4</sup>. This quest also has goals such as being more beautiful, being more prominent at work and in society, correcting a part of the body that is unsatisfied, or aging beautifully<sup>5</sup>.

Today, social media has been added to social and personal factors affecting the tendency towards cosmetic procedures. Cosmetic procedures have become more affordable and widespread, and intense advertisements and publications about them on social media have changed individuals' perceptions of their bodies, their perspectives on these procedures, and increased demand. This demand is also growing in the young population. Neurotoxin and filling applications have become popular in individuals aged 18 to 25<sup>6</sup>.

The fact that social media affects cosmetic treatment behaviors in adolescent age groups changes body perception negatively. It is a source of information about cosmetic treatments that has led to some problems<sup>7</sup>. The use of social media and the photo editing features accompanying the applications, and the fact that the structure of the face in selfies is more distorted than usual, may increase the tendency towards cosmetic procedures in young people<sup>8-10</sup>. Since this group of social media users takes and shares a large number of selfies, is exposed to a large amount of feedback about their appearance, and can compare their appearance with others infinitely, they are a group with a high search for and acceptance of cosmetic procedures and are open to the marketing of these procedures<sup>11</sup>.

This study aimed to evaluate the demands of individuals between the ages of 18 and 28 who use social media widely regarding these procedures, to evaluate their perspectives on these procedures, and to evaluate their judgements about their faces from the perspective of a dermatology physician.

## Materials and Methods

This study was conducted with the approval of the Ethics Committee of KTO Karatay University Faculty of Medicine (approval number: 2024/025, date: 15.02.2024).

Individuals aged 18 to 28 who presented to our clinic were included in the study, and data were collected by sending a questionnaire via the internet. A link to access the survey was sent to the participant's phone as a message, and the participant clicked on this link to access the survey and filled it out using a computer or phone. Participants were also asked to share the questionnaire with their friends, utilizing the snowball sampling method.

The questionnaire used demographic and 10-point Likert scale questions to evaluate patient opinion (Supplementary 1). Income level was considered monthly income, and income level categories were determined based on the minimum wage level in Türkiye (17,002 TL). The income level was divided into six categories, each with an increment of 2,500 TL.

## Statistical Analysis

Statistical analyses were performed using SPSS version 25.0. In addition to the descriptive statistics of demographic and qualitative data, the comparative study of the obtained data was evaluated with inferential statistical methods by testing the data's conformity to the normal distribution.

The suitability of the data for normal distribution was evaluated using the Shapiro-Wilk test and Kolmogorov-Smirnov test. Data that did not conform to normal distribution were analyzed with the Mann-Whitney U test for comparisons between paired independent groups, and the analysis between more than two groups was performed using the Kruskal-Wallis test. The chi-square test was used to analyze categorical data. Statistical significance was set at  $p < 0.05$ .

## Results

Ninety-seven people (72 women/25 men) were included in the study. The respondents' demographic information is summarized in Table 1, and their answers to the survey questions are summarized in Table 2. The scores of agreement with the goals of the cosmetic procedures are shown in Figure 1. Five individuals with psychiatric illnesses were not excluded from the study.

Fifty-eight participants (48 women and 10 men) stated that there was a place on their face that they did not like. Women were more likely

**Table 1. Demographic data**

<b>Gender (F/M)*</b>	72/25
<b>Age</b>	22.89±3.09
<b>Education level</b>	
University	79 (81.4%)
High school	17 (17.5%)
Elementary school	1 (1%)
<b>Income level (monthly)</b>	
Under 5000 TL	38 (39.1%)
5000-9999 TL	18 (18.6%)
10000-14999 TL	19 (19.6%)
15000 TL and above	22 (22.7%)
<b>Sibling presence</b>	
One	40 (41.2%)
Two	27 (27.8%)
Three and above	21 (21.6%)
<b>Mother's education level</b>	
University	28 (28.8%)
High school	30 (30.9%)
Elementary school	39 (40.2%)
<b>Father's education level</b>	
University	41 (42.2%)
High school	29 (29.9%)
Elementary school	27 (27.8%)
<b>Psychiatric illness</b> (anxiety, depression, bipolar disorder, obsessive-compulsive disorder, trichotillomania, attention deficit hyperactivity disorder)	5 (5.1%)
*F/M: Female/male	

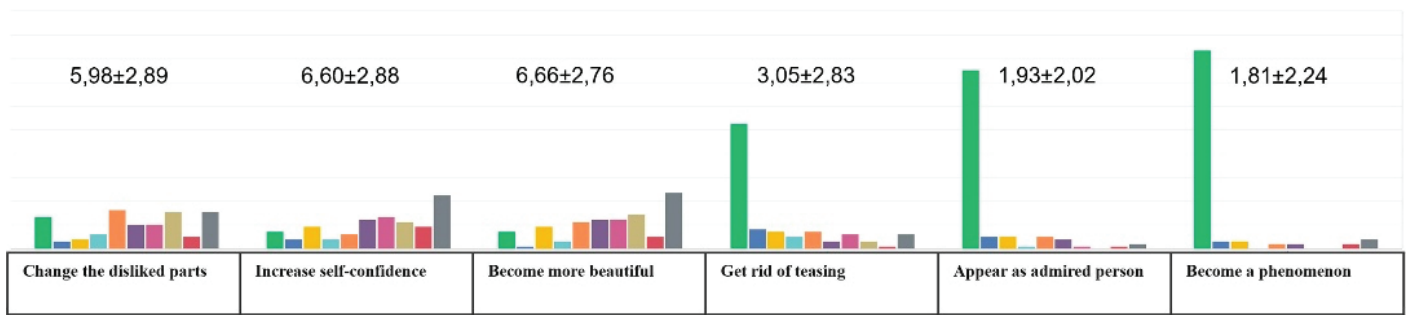


Figure 1. Score of cosmetic procedure goals

Table 2. Responses to the survey questions

	Never	Rarely	Sometimes	Frequently	Definitely
Willingness to make changes to your face	26 (26.8%)	21 (21.6%)	39 (40.2%)	6 (6.1%)	5 (5.1%)
Using filters in photographs	22 (22.6%)	28 (28.8%)	28 (28.8%)	14 (14.4%)	5 (5.1%)
Teasing in childhood and adolescence	26 (26.8%)	30 (30.9%)	30 (30.9%)	7 (7.2%)	4 (4.1%)
Consideration of cosmetic procedures	32 (32.9%)	25 (25.7%)	32 (32.9%)	6 (6.1%)	2 (2%)

than men to express that they had a disliked part of their face ( $p<0.05$ ). The dislike rate was significantly higher among those who wanted cosmetic procedures ( $p<0.001$ ).

The mean discontent score of those with a disliked area on their face was  $5.12\pm 1.89$ . Education, income, and gender did not affect the scores. The dissatisfaction score was higher in those who desired to change their face ( $p<0.05$ ).

The mean score for satisfaction with the face was  $7.15\pm 1.8$ . Similarly, the score of being satisfied with the face was higher in those who did not have a disliked part of their face, those who did not plan to make changes to their face and to have cosmetic procedures, and those who did not use photo filters ( $p<0.001$ ,  $p<0.001$ ,  $p<0.05$ ,  $p<0.05$ ). The score of those who never thought of having changes in their face was higher than the others ( $p<0.001$ ), and the score of those who never thought of having cosmetic procedures was higher than those who often thought of them ( $p<0.05$ ).

Those who thought of making changes to their face constituted 73.1% of the participants. The mean score of wanting to make changes on the face was  $5.28\pm 1.92$ . The most desirable cosmetic procedures are lip augmentation, neurotoxin application, tear trough augmentation, and rhinoplasty. The score was higher in those with a disliked part on their face and a thought for cosmetic procedure ( $p<0.05$ ,  $p<0.001$ , respectively).

The mean score for being satisfied with the appearance of the face in the mirror was  $7.20\pm 1.91$ , and the mean score for being dissatisfied with the face in the mirror was  $3.48\pm 2.34$ . Among siblings, the dissatisfaction score was higher in the first child than in the last child ( $p<0.05$ ). Dissatisfaction with the appearance of the face in the mirror was found to be higher in those who had a disliked part of their face ( $p<0.005$ ). There was a significant difference between those who thought of making changes to their face in terms of both scores, and this difference was between the "never" group and the "definitely" group ( $p<0.001$ ). The scores of satisfaction and dissatisfaction were significantly different in those who used photo filters and those who were considering cosmetic procedures ( $p<0.001$ ,

$p<0.05$ ). While there was no significant difference in the score of satisfaction with the appearance of the face in the mirror in the intergroup comparisons of those who consider cosmetic procedures, the score of dissatisfaction with the appearance of the face in the mirror was higher in the "sometimes" group than in the "never" group ( $p<0.05$ ). The satisfaction scores of those who rarely used filters in their photographs were higher than the "sometimes" group and "definitely" group ( $p<0.001$ ), and the dissatisfaction score was higher in those who sometimes and frequently used filters than in those who never and rarely used filters ( $p<0.05$ ). The dissatisfaction score was higher for those who wanted to undergo surgery for cosmetic purposes ( $p<0.05$ ). The percentage of patients who wanted to undergo surgery for cosmetic purposes was 14.4%. The mean score in the sentence "I will have surgery" was  $3.08\pm 2.35$ . The score for fear of the cosmetic procedure being painful was  $6.40\pm 3.26$ . The mean score for having surgery was statistically significant for those who wanted to change their face and those with the idea of cosmetic procedures. However, no difference was detected in the comparison between the groups ( $p<0.05$ ).

The proportion of patients with the idea of a cosmetic procedure was 67%. Among those who thought of having a cosmetic procedure, their ideas (63.9%), family (10.3%), social media (8.2%), friends (7.2%), lovers (5.1%), TV series/movie characters (3%), and advertisements (2%) were the most influential. When grouped according to the social environment of the person (family, lover, friend) and the media, the social environment accounted for 22.6%, and the media accounted for 13.4%. The most common sources of information regarding cosmetic procedures were Internet/social media (35%), dermatologists (32.9%), and plastic surgeons (31.9%). Other sources were beauty centers/beauty specialists (24.7%), other physicians (18.5%), friends (19.5%), and family (10.3%). The most preferred place for cosmetic procedures was the hospital (53.6%), followed by the doctor's office (27.8%) and the beauty center (15.4%). Hygiene, trust, material quality, and meeting the expectations are expected from the practitioner.

Participants gave an average score of  $7.69 \pm 2.36$  to be upset when the procedure result did not meet expectations. The score of those who did not have a disliked part on their face was higher ( $p < 0.05$ ), and a difference was detected in those who wanted to make changes to their face ( $p < 0.05$ ), but no significant difference was found between the groups.

The mean scores for considering cosmetic procedures as a need, luxury, and unnecessary were  $3.20 \pm 2.42$ ,  $5.57 \pm 2.84$ , and  $5.32 \pm 3.22$ , respectively. The scores for seeing cosmetic procedures as necessary and luxury were higher in those with a disliked part on their face ( $p < 0.05$ ). The score of seeing cosmetic procedures as necessary significantly differed in the group who thought of changing their face. It was lower in the never group than in the other groups ( $p < 0.001$ ). Those who used photo filters tended to see cosmetic procedures as a need, and this difference was higher in the "definitely" group than in the "never" group and "rarely" group ( $p < 0.05$ ). Participants who thought about cosmetic procedures tended to see cosmetic procedures as necessary, and the "rarely" group and sometimes group were higher than the "never" group ( $p < 0.001$ ). As a result of the evaluation made by including those who definitely and frequently think in the same group, the score of the "never" group was lower than other groups ( $p < 0.001$ ). The score for seeing it as a need was higher in those who thought of having surgery for cosmetic purposes ( $p < 0.05$ ).

In childhood, 73.2% of participants were teased. The most common mockers were friends, followed by relatives and family members. Those who were subjected to teasing in childhood considered cosmetic procedures a luxury, but there was no significant difference between the groups ( $p < 0.05$ ).

The mother's education level influenced the score of considering cosmetic procedures unnecessary, and this difference is lower in the higher education group than others ( $p < 0.05$ ). Those who preferred non-surgical methods for cosmetic procedures tended to see cosmetic procedures as unnecessary ( $p < 0.05$ ).

Regarding the goals of cosmetic procedures, the scores for "changing the disliked parts" and "getting rid of teasing" were higher in men ( $p < 0.05$ ). Regarding income, the scores given to the goal of being more beautiful were significantly different, but no difference was found between the income groups ( $p < 0.05$ ). Those who had a disliked part of their face had a higher score for the goal of becoming like the person they admired ( $p < 0.05$ ). There was a significant difference in the participants who were teased in childhood in scoring the goal of getting rid of teasing, and this difference was higher in the "often" group than in the "never" and "rarely" group ( $p < 0.001$ ). When we look at the relationship between cosmetic goals and the factors that are effective in the decision-making of those considering cosmetic procedures, there is statistical significance in the scores of increasing self-confidence, being more beautiful, and being a phenomenon ( $p < 0.05$ ). Still, no significant difference was observed between the groups. When we categorized the factors influential in decision-making into three groups: self-determination, social environment (family, lovers, friends), and media (social media, TV series/movie characters, advertisements), increasing self-confidence and being more beautiful are statistically significant; this difference is between self-determination and the social environment group, and the score of the social environment group was higher ( $p < 0.05$ ). The score of being similar to the person

admired was higher in those whose mother and father's education level was high school and below, in the first children, and in those who had thought about having cosmetic procedures, regardless of the frequency ( $p < 0.05$ ). While the score for increasing self-confidence was higher in those with a monthly income level below 7,500 TL, the score for being a phenomenon was higher in those with a monthly income above 7,500 TL ( $p < 0.05$ ).

## Discussion

More than half of the participants had a disliked part of their face, which was more common in women than in men. Facial dislike was also evident among those who considered cosmetic procedures. In parallel, the scores given to dissatisfaction were higher among those who wanted to make changes to their face.

Regarding satisfaction with their face, those considering cosmetic procedures and those who wanted to change their face gave lower scores. Those who wish to change their face and those who are considering cosmetic procedures tend to give low scores in terms of satisfaction with the appearance of their face in the mirror. This dissatisfaction even manifested itself as the desire to undergo surgery for cosmetic purposes.

From this perspective, dissatisfaction with oneself, desire for cosmetic procedures, and approach to these procedures affect each other and produce interrelated results. When compared with the literature, the majority of the participants requesting these procedures, dissatisfaction with their own body, especially in women, positive attitude towards cosmetic procedures, and desire for surgery due to dissatisfaction were common findings<sup>12-14</sup>. Simis et al.<sup>15</sup> reported the findings that individuals aged 12-22 have a healthy and realistic approach to their bodies and that they basically want changes in the parts of their bodies that they are not satisfied with, supporting the association of dissatisfaction and thinking of cosmetic procedures in the results, and may also suggest that this demand is healthy.

The use of photo filters was a factor that affected both dissatisfaction and desire for cosmetic procedures in our study. Similarly, it is also associated with dissatisfaction with the appearance of one's face in a mirror. The use of photo filters also reflects seeing cosmetic procedures as a need<sup>16,17</sup>.

The score for considering cosmetic procedures as unnecessary or luxury was higher than for considering them a need. However, cosmetic procedures are seen as a need by those who are considering cosmetic procedures, those who want to change their face, those who use photo filters, and those who are considering surgery for these purposes<sup>18</sup>.

Unlike in our study, becoming a phenomenon and looking like an admired person is not among the primary goals, while individual reasons such as changing unsatisfactory parts, being more beautiful, and increasing self-confidence are prioritized<sup>17-20</sup>. Getting rid of teasing is crucial for those teased in childhood<sup>21</sup>. Also, not obtaining the desired result from the procedure creates frustration<sup>22,23</sup>.

Similar to other studies, the procedures most preferred by those considering cosmetic procedures were lip augmentation, neurotoxin application, tear trough augmentation, and rhinoplasty<sup>24</sup>. A small proportion of the participants considered surgery for cosmetic purposes, and the pain of the procedures is a frightening factor<sup>25,26</sup>. Those considering cosmetic procedures stated that their opinions were

the most critical factors in decision-making, followed by the social environment of family, friends, lovers, and the media factor of social media, celebrities, and advertisements. In this respect, our study is similar to the publications that emphasize the importance of individual factors with the prominence of personal opinion and the importance of being influenced by one's social environment and media with the social environment and media factors<sup>27,28</sup>. The places where the participants consulted to collect information about cosmetic procedures can be categorized under four main headings: healthcare professionals (dermatologists and plastic surgeons), internet/media, beauticians, family, and friends. Procedures are most often requested in a hospital or physician's office. The fact that healthcare professionals were more prominent in our study compared to others is a positive difference from the publications indicating where information on this subject was collected, such as the Internet, social environment, and beauticians<sup>29</sup>. In our study, the parents' educational and income levels seemed to affect attitudes toward cosmetic procedures, but this issue needs to be examined more extensively<sup>30,31</sup>.

### Study limitations

This study has limitations, as it does not have a large sample between the ages of 18 and 28 and does not include different socioeconomic, socio-cultural, and educational groups of society.

### Conclusion

In this age group, cosmetic procedures are viewed positively, and individual factors are at the forefront rather than the influence of social media and the social environment. The procedure aims to change a person's opinion about themselves positively. The preference is for non-surgical methods, and it is favorable to prefer hospitals and clinics for procedures. It is essential to meet the expectations from the procedure.

### Ethics

**Ethics Committee Approval:** This study was conducted with the approval of the Ethics Committee of KTO Karatay University Faculty of Medicine (approval number: 2024/025, date: 15.02.2024).

**Informed Consent:** Not applicable.

### Footnotes

#### Authorship Contributions

Concept: K.K., S.P.K., Design: K.K., S.P.K., Data Collection or Processing: K.K., S.P.K., Analysis or Interpretation: K.K., S.P.K., Literature Search: K.K., S.P.K., Writing: K.K., S.P.K.

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**Supplementary Table 1. Survey questions**

1. Is there a part of your face that you don't like or dislike?	11. Which one would you prefer for cosmetic procedures?
2. How many points would you give to your displeasure about the part you don't like on your face?	12. At what rate would you consider having surgery for cosmetic procedures?
3. How satisfied are you with your face?	13. If the outcome of a procedure is 10 points with surgery and 9 points with other methods, which would you prefer?
4. Do you want to change your face?	14. How much does it scare you if the cosmetic procedure is painful?
5. How would you rate your willingness to make the changes you want to make to your face?	15. How upset would you be if the outcome was good but not as good as expected?
6. Do you use filters during or after taking your photos?	16. Please rate your level of agreement with the following statements about the goals of cosmetic procedures - Change the disliked parts - Increase self-confidence - Become more beautiful - Get rid of teasing - Look like the admired person - Become a phenomenon
7. How many points would you give to the sentence "I am satisfied with how my face looks in the mirror"?	17. How many points would you give to the statement "I see cosmetic procedures as a necessity"?
8. How many points would you give to the sentence "I am not happy with how my face looks in the mirror"?	18. How many points would you give to the statement "Cosmetic procedures are a luxury"?
9. Were you teased about your appearance as a child or adolescent?	19. How many points would you give to the statement "Cosmetic procedures are unnecessary between 18-28 years old"?
10. Have you ever thought about having any cosmetic procedure done on your face?	