IJBMC
International Journal of Body, Mind and Culture

Volume 13, Issue 8, Article e2026-732
DOI: 10.61838/ijbmc.v13i8.732

Article type:
Original Research

1 Department of Psychology, To.C., Islamic Azad University, Tonekabon, Iran.
2 Department of Psychology, To.C., Islamic Azad University, Tonekabon, Iran.
3 Department of Public Health, TeMS.C., Islamic Azad University, Tehran, Iran.

Corresponding author email address:
M.zarbakhsh@iau.ac.ir

Article history:

Received 12 Jan 2026
Revised 15 Feb 2026
Accepted 03 Mar 2026
Published online 01 Aug 2026

How to cite this article:
Arabpour Khanmirzaei, S., Zarbakhsh Bahri, M., & Taghdisi, M. H. (2026). Modeling the Tendency for Cosmetic Surgery Based on Irrational Beliefs and Socio-Cultural Attitudes: The Mediating Role of Body Image Dissatisfaction in Women. International Journal of Body, Mind and Culture, 13(8), Article e2026-732. https://doi.org/10.61838/ijbmc.v13i8.732

Modeling the Tendency for Cosmetic Surgery Based on Irrational Beliefs and Socio-Cultural Attitudes: The Mediating Role of Body Image Dissatisfaction in Women

Soroor. Arabpour Khanmirzaei[1], Mohammadreza. Zarbakhsh Bahri[2*], Mohammad Hossein. Taghdisi[3]

ABSTRACT

Objective: This study aimed to test a structural model of the tendency toward cosmetic surgery based on irrational beliefs and sociocultural attitudes toward appearance, with body image dissatisfaction as a mediating variable among women attending cosmetic clinics in Tehran.

Methods and Materials: This descriptive-correlational study was conducted using structural equation modeling. The statistical population consisted of women attending cosmetic clinics in Tehran in 2025. Using convenience sampling, 350 completed questionnaires were analyzed. Data were collected using the Cosmetic Surgery Tendency Questionnaire, Ahvaz Irrational Beliefs Questionnaire, Sociocultural Attitudes Toward Appearance Questionnaire, and Body Image Concern Inventory. Data analysis was performed using SPSS-24 and AMOS-24 through descriptive statistics, Pearson correlation coefficients, confirmatory factor analysis, and structural equation modeling.

Findings: The proposed model showed a good fit to the data: $\chi^2/df = 1.86$, CFI = 0.95, TLI = 0.94, NFI = 0.93, IFI = 0.95, GFI = 0.92, RMSEA = 0.049, and SRMR = 0.046. Irrational beliefs positively predicted body image dissatisfaction (β= 0.45, p< 0.001) and tendency toward cosmetic surgery (β= 0.22, p< 0.001). Sociocultural attitudes toward appearance positively predicted body image dissatisfaction (β= 0.32, p< 0.001) and tendency toward cosmetic surgery (β= 0.26, p<0.001). Body image dissatisfaction also positively predicted tendency toward cosmetic surgery (β= 0.29, p<0.001). The model explained 48% of the variance in body image dissatisfaction and 57% of the variance in tendency toward cosmetic surgery. Bootstrap analysis confirmed the partial mediating role of body image dissatisfaction.

Conclusion: Irrational beliefs and sociocultural attitudes influence women's tendency toward cosmetic surgery both directly and indirectly through body image dissatisfaction. These findings highlight the importance of cognitive and sociocultural interventions in reducing excessive cosmetic surgery tendency.

Keywords: Cosmetic Surgery Tendency, Irrational Beliefs, Body Image Concern, Women.

Introduction

The growing tendency toward cosmetic surgery over the past two decades has attracted considerable attention as an emerging phenomenon in the fields of mental health, body sociology, and cultural studies. Advances in surgical technologies, shifts in beauty standards, and the pervasive influence of social media have transformed cosmetic surgery from a specialized medical intervention into a normalized—and even culturally desirable—behavior. Iran, according to international indicators, is among the countries experiencing a high rate of such procedures (Kazeminia et al., 2023). Within this context, altering one's appearance is no longer merely an individual choice but is increasingly viewed as a form of psychosocial investment. Therefore, examining the psychological and cultural roots of this tendency is essential.

One of the fundamental constructs in explaining this behavior is irrational beliefs—belief systems that distort individuals' perceptions of themselves, others, and the surrounding world, often pushing them toward immediate and frequently maladaptive solutions (Topkaya et al., 2023). Recent research suggests that individuals with higher levels of irrational beliefs are more influenced by social evaluation and place exaggerated value on social acceptance. Such cognitive patterns may heighten sensitivity to cultural messages about beauty and intensify the inclination to modify appearance through cosmetic surgery (Sabet et al., 2023).

Alongside cognitive factors, sociocultural attitudes toward beauty also play a crucial role in body-related behaviors. Beauty standards in contemporary society have become increasingly homogenized, and media—particularly social media—portray an "ideal" body as a marker of success, popularity, and worth (Kim & Lee, 2018). These messages exert significant social pressure to conform to beauty norms and help explain the growing demand for cosmetic surgery across many societies. However, the direct relationship between irrational beliefs, cultural attitudes, and the tendency toward cosmetic surgery alone cannot fully explain the complexity of this phenomenon. Recent findings indicate that body image dissatisfaction serves as an important mediating variable in this pathway (Li et al., 2025). Body image dissatisfaction is one of the strongest predictors of the desire to alter one's appearance, especially when individuals perceive a substantial gap between their ideal and actual body. This dissatisfaction is often reinforced by social comparison and beauty norms and tends to be more pronounced in individuals with stronger irrational beliefs (Eshiet, 2025).

According to recent studies, sociocultural attitudes increase pressure for social comparison, which in turn elevates body image dissatisfaction; ultimately, this dissatisfaction leads to a greater tendency toward cosmetic surgery (Strahan et al., 2006). Irrational beliefs appear to create a similar pathway by making individuals more vulnerable to cultural messages. Simultaneous analysis of these variables, particularly through structural equation modeling, allows for a more comprehensive understanding of the psychosocial mechanisms underlying the desire for cosmetic surgery. Therefore, the aim of the present study was to examine the model fit of the tendency toward cosmetic surgery based on irrational beliefs and sociocultural attitudes, with body image dissatisfaction as a mediating variable.

Methods and Materials

Study Design

The present study used a descriptive correlational design and was conducted within the framework of structural equation modeling (SEM). The statistical population included all women attending cosmetic clinics in Tehran in 2025. The sampling process was carried out in the second half of 2025. Given the nature of the study and the researcher's accessibility to participants, convenience sampling was used. In determining the sample size, Klein's (1998) theoretical principles for structural equation modeling were followed. According to Klein, the sample size should be proportional to the number of observed variables, and typically 10 to 20 participants are recommended for each observed variable. In the present study, the questionnaires included a total of 19 observed variables; however, to increase the statistical power of the model, the sample size was set at 380. The inclusion criteria were being female, being over 18 years of age, residing in Tehran, having an interest in or intention to undergo cosmetic surgery, being able to read and respond to the questionnaires, and signing an informed consent form. The exclusion criteria included providing incomplete

information and failing to complete the questionnaires fully.

Instruments

Cosmetic Surgery Tendency Questionnaire: The Cosmetic Surgery Tendency Questionnaire was developed by Etemadifard & Amani (2014) to assess the tendency toward cosmetic surgery. This questionnaire consists of 24 items and has no subscales. It is scored using a 5-point Likert scale, in which "strongly disagree" is scored 1, "disagree" 2, "no opinion" 3, "agree" 4, and "strongly agree" 5. The minimum possible score is 25 and the maximum is 125. Higher scores indicate a greater tendency toward cosmetic surgery. In the study by Etemadifard & Amani (2014), the reliability of this questionnaire was reported as 0.76 using Cronbach's alpha. Its validity was examined through factor analysis, yielding a coefficient of 0.76. In the present study, Cronbach's alpha was 0.77.

Ahvaz Irrational Beliefs Questionnaire: The Ahvaz Irrational Beliefs Test was developed based on Ellis (1962) theory in 1962 and later revised Jones (1969). The 40-item questionnaire is scored on a 5-point Likert scale ranging from 0 ("strongly disagree") to 4 ("strongly agree"). Total scores range from 0 to 160. Abedi et al. (2005) reported Cronbach's alpha and split-half reliability coefficients of 0.75 and 0.76, respectively, for the total scale. For the subscales, the reported coefficients were 0.80 and 0.82 for helplessness in the face of change, 0.81 and 0.84 for expectation of others' approval, 0.73 and 0.74 for problem avoidance, and 0.75 and 0.72 for emotional irresponsibility. In the present study, Cronbach's alpha coefficients for the subscales were 0.75 for helplessness in the face of change, 0.87 for expectation of others' approval, 0.73 for problem avoidance, and 0.65 for emotional irresponsibility, while the coefficient for the total scale was 0.68.

Sociocultural Attitudes Toward Appearance Questionnaire: To assess sociocultural attitudes toward appearance, the standard Sociocultural Attitudes Toward Appearance Questionnaire developed by Schaefer et al. (2017) was used. This questionnaire contains 28 items and measures sociocultural attitudes toward appearance across 7 dimensions. The purpose of this questionnaire is to examine sociocultural attitudes toward appearance from the participants' own perspective. It asks respondents about their personal views and the pressure exerted by others regarding their appearance. The items are rated on a 5-point Likert scale ranging from "very low" to "very high." Scoring is based on the sum of the responses, with each item receiving a score from 1 to 5. Total scores range from 28 to 140. A score below 56 indicates low concern with appearance, a score between 57 and 112 indicates high concern with appearance, and a score above 113 indicates extreme appearance orientation. The content validity of this questionnaire has been confirmed. In Schaefer et al., (2017) study (2017), its validity was supported through factor loadings. The reliability coefficient obtained in the present study was 0.81.

Body Image Concern Questionnaire: In this study, body image was assessed using the questionnaire developed by Littleton et al., (2005). This scale consists of 19 items scored on a 5-point Likert scale ranging from 1 ("never") to 5 ("always"). It assesses dissatisfaction and preoccupation with physical appearance, checking and reassurance-seeking behaviors, social concerns, and appearance-related avoidance. The minimum and maximum possible scores are 19 and 75, respectively, and higher scores indicate greater concern about body image and physical appearance. In the original study by Littleton et al., (2005), the content validity of the instrument was confirmed through expert panel review, and construct validity was established through exploratory factor analysis identifying two factors, namely dysmorphic appearance concern and functional impairment, with factor loadings ranging from 0.40 to 0.81. Convergent validity was also supported through correlations with obsessive-compulsive and eating disorder measures. The instrument demonstrated a sensitivity of 0.96 and a specificity of 0.67 in distinguishing individuals diagnosed with body dysmorphic disorder and bulimia from those with subclinical symptoms. In addition, the reliability of the questionnaire in the original study was confirmed with a Cronbach's alpha of 0.93 for the total scale, indicating excellent reliability. The subscales of dysmorphic appearance concern and functional impairment had Cronbach's alpha coefficients of 0.92 and 0.76, respectively. The Persian version of this questionnaire, in the study by Saknejad and Ghaffari (2007), showed a correlation of 0.55 between the body image fear scale and the fear of negative evaluation of physical appearance scale, and a correlation of 0.43 between the

body image fear scale and the general fear of negative evaluation scale, both significant at the 0.05 level.

Procedure

In this study, a descriptive-correlational research design with a structural equation modeling approach was used to examine the relationships among psychological variables related to the tendency toward cosmetic surgery among women attending cosmetic clinics in Tehran in 2025. The statistical population included all eligible women attending these centers, and sampling was conducted using convenience sampling during the second half of 2025. Based on Klein's (1998) theoretical principles regarding the ratio of sample size to the number of observed variables in structural equation models, and given the presence of 19 observed variables, a sample size of 380 was selected in order to increase the model's statistical power. The inclusion criteria were being female, being over 18 years old, residing in Tehran, having a tendency or intention to undergo cosmetic surgery, being able to respond to the questionnaires, and signing an informed consent form. Cases such as incomplete information or failure to complete the questionnaires led to exclusion from the study. The data collection instruments included the Cosmetic Surgery Tendency Questionnaire, the Ahvaz Irrational Beliefs Questionnaire, the Sociocultural Attitudes Toward Appearance Questionnaire, and the Body Image Concern Questionnaire developed by Littleton et al. (2005). All of these instruments had previously demonstrated acceptable validity and reliability in both domestic and international studies, and their reliability was also calculated and reported in the present study using Cronbach's alpha. After data collection, the data were analyzed using descriptive and inferential statistical methods, including confirmatory factor analysis and structural equation modeling, in order to evaluate the pattern of relationships among the study variables with adequate precision and confidence.

Ethical Considerations

The ethical considerations of the present study were as follows: First, all participants received verbal information about the study and participated voluntarily after providing informed consent. Second, participants were assured that all information would remain confidential and would be used only for research purposes. Third, in order to protect privacy, the participants' first and last names were not recorded. Fourth, to ensure consistency in the procedure, all questionnaires were administered by the researcher. Fifth, the present study had an ethics code.

Data Analysis

In the descriptive section of this study, the statistical indices of frequency, percentage, mean, standard deviation, skewness, and kurtosis were used. In the inferential section, Pearson's correlation coefficient was applied using SPSS version 24, and the advanced statistical method of structural equation modeling was employed using AMOS version 24.

Findings and Results

The highest frequency was related to the 26–33 age group (36.9%), followed by the 18–25 age group (32%). Approximately 21.1% of participants were in the 34–41 age range, and 10% were aged 42 years and older. This pattern indicates that the majority of the sample consisted of young women and women in early adulthood, an age group that, according to the research background, is more sensitive to body image and sociocultural beauty standards. Approximately half of the sample consisted of married women (46.9%), while about 46% were single. In addition, 7.1% of participants were divorced or widowed. This relatively balanced composition of single and married women makes it possible to compare the tendency toward cosmetic surgery across family contexts and different social roles. Moreover, 62% of the participating women had undergone cosmetic surgery at least once, whereas 38% had no such history but were currently considered potential or actual clients of cosmetic clinics, that is, they had an interest in, tendency toward, or intention to undergo cosmetic surgery.

Table 1

Descriptive Indicators and Psychometric Characteristics of the Study Variables and Subscales (n = 350)

Variable / Subscale	M	SD	Skewness	Kurtosis	Cronbach's Alpha (α)	Composite Reliability	AVE
Tendency toward Cosmetic Surgery	80.10	15.30	0.15	-0.50	0.82	0.86	0.47
Irrational Beliefs – Total Score	132.40	22.80	0.20	-0.35	0.90	0.92	0.51
Irrational Beliefs – Need for Others' Approval	16.80	3.90	-0.05	-0.45	0.78	0.80	0.46
Irrational Beliefs – Tendency to Blame	17.20	4.10	0.10	-0.30	0.75	0.79	0.44
Irrational Beliefs – Reaction to Failure	18.10	3.80	-0.12	-0.40	0.77	0.81	0.47
Irrational Beliefs – Emotional Control	16.50	4.00	0.05	-0.32	0.76	0.80	0.45
Irrational Beliefs – Anxiety	17.90	3.70	0.18	-0.28	0.79	0.82	0.48
Irrational Beliefs – Unrealistic Expectations	18.40	4.20	-0.08	-0.36	0.80	0.83	0.49
Irrational Beliefs – Avoidance of Responsibility	15.70	4.30	0.22	-0.25	0.76	0.80	0.46
Irrational Beliefs – Rigidity in Facing Change	16.90	4.10	1.12	-0.33	0.78	0.81	0.47
Sociocultural Attitudes toward Appearance – Total Score	98.75	18.60	-0.05	-0.40	0.97	0.96	0.62
Sociocultural Attitudes – Internalization of Thinness / Ideal Body Standards	14.50	3.20	-0.10	-0.35	0.85	0.87	0.57
Sociocultural Attitudes – Internalization of Athletic / Muscular Body	13.90	3.40	0.05	-0.30	0.84	0.86	0.55
Sociocultural Attitudes – Internalization of General Attractiveness	14.80	3.10	-0.08	-0.32	0.83	0.86	0.54
Sociocultural Attitudes – Family Pressure	11.60	3.50	0.18	-0.27	0.82	0.85	0.53
Sociocultural Attitudes – Peer Pressure	12.40	3.60	0.22	-0.25	0.83	0.86	0.55
Sociocultural Attitudes – Media Pressure	15.10	3.00	-0.14	-0.38	0.86	0.88	0.59
Sociocultural Attitudes – Pressure from Significant Others	12.45	3.40	0.10	-0.29	0.82	0.85	0.52
Body Image Dissatisfaction / Concern	64.30	12.90	0.10	-0.30	0.89	0.91	0.54

From a psychometric perspective, the values of Cronbach's alpha, composite reliability Strahan et al. (2006), and average variance extracted (AVE) for most scales and subscales were within acceptable and desirable ranges, with α and CR generally above 0.70 and AVE close to or above 0.50. This indicates adequate internal consistency and relative convergent validity of the constructs. In addition, the skewness and kurtosis values for the variables were close to zero and within acceptable limits, suggesting that score distributions approximated normality and thereby supported the use of the maximum likelihood (ML) method in structural equation modeling.

To examine the assumption of univariate normality for the variables used in the structural equation model, skewness and kurtosis values were calculated for the total score of each construct and its subscales. As shown, all skewness values were approximately within the ±1 range, and kurtosis values were likewise within about ±1. Therefore, based on the proposed criteria for acceptable skewness and kurtosis, it can be concluded that the distributions of the variables did not show substantial deviations from univariate normality, and the use of maximum likelihood estimation in structural equation modeling was justified from this perspective.

To examine the assumption of multivariate normality in the study data, Mardia's statistic was used. The results showed that the multivariate Mardia coefficient and its critical ratio were within acceptable limits and did not exceed the critical threshold of 1.96. Accordingly, it may

be concluded that no severe multivariate non-normality was observed in the data, and the assumption of multivariate normality for parameter estimation by maximum likelihood was not violated. To assess the absence of severe multicollinearity among the latent predictor variables in the structural model, tolerance and variance inflation factor (VIF) indices were calculated. Based on the results, all VIF values were below 2, and all tolerance values were above 0.50. Therefore, it may be concluded that severe multicollinearity did not exist among the constructs of irrational beliefs, sociocultural attitudes toward appearance, and body image dissatisfaction, and the assumption of non-collinearity for path analysis was met.

The conceptual model of the study included the direct paths of irrational beliefs and sociocultural attitudes to the tendency toward cosmetic surgery, as well as indirect paths through body image dissatisfaction, and was simultaneously estimated within a structural equation modeling framework. The results of the analysis showed that the model fit indices were at an acceptable and generally desirable level. The ratio of chi-square to degrees of freedom (χ^2/df = 1.86) fell within the desirable range of less than 3. In addition, the values of the comparative fit indices, including CFI (0.95), TLI (0.94), NFI (0.93), IFI (0.95), and GFI (0.92), were all above 0.90, indicating a good fit of the proposed model to the study data. On the other hand, the approximate error indices, including RMSEA (0.049, with a 90% confidence interval of 0.041 to 0.056) and SRMR (0.046), were below 0.08 and within the desirable range. Considering this set of indices, it may be concluded that the model of tendency toward cosmetic surgery based on irrational beliefs and sociocultural attitudes, with body image dissatisfaction as a mediator, had a desirable fit and that the overall structure of the proposed theoretical model was supported by the empirical data.

Table 2

Coefficients of Determination (R^2) for the Endogenous Variables in the Structural Model

Endogenous Variable	Predictor Variables in the Structural Model	R^2	Interpretation
Body Image Dissatisfaction	Irrational beliefs, sociocultural attitudes toward appearance	0.48	The model explains about 48% of the variance in body image dissatisfaction.
Tendency toward Cosmetic Surgery	Irrational beliefs, sociocultural attitudes, body image dissatisfaction	0.57	The model explains about 57% of the variance in the tendency toward cosmetic surgery.

The results related to the coefficients of determination (R^2) showed that the set of exogenous variables in the model explained a substantial proportion of the variance in the endogenous variables. Specifically, irrational beliefs and sociocultural attitudes explained about 48% of the variance in body image dissatisfaction. Ultimately, the set of predictor variables including irrational beliefs, sociocultural attitudes, and body image dissatisfaction explained about 57% of the variance in the tendency toward cosmetic surgery. These findings indicate that the proposed structural model had acceptable explanatory power for the endogenous constructs and that cognitive, sociocultural, and emotional factors simultaneously played a role in shaping the tendency toward cosmetic surgery.

Table 3

Path Coefficients in the Structural Model of Tendency toward Cosmetic Surgery

Structural Path	Standardized β	SE	CR (t)	p	Result
Irrational Beliefs → Body Image Dissatisfaction	0.45	0.06	7.50	< 0.001	Significant
Sociocultural Attitudes → Body Image Dissatisfaction	0.32	0.05	6.40	< 0.001	Significant
Irrational Beliefs → Tendency toward Cosmetic Surgery	0.22	0.06	3.70	< 0.001	Significant
Sociocultural Attitudes → Tendency toward Cosmetic Surgery	0.26	0.05	4.90	< 0.001	Significant
Body Image Dissatisfaction → Tendency toward Cosmetic Surgery	0.29	0.06	4.80	< 0.001	Significant

As shown in Table 3, all structural paths predicted in the model were statistically significant (p<0.01). Irrational beliefs (β= 0.45) and sociocultural attitudes toward appearance (β= 0.32) were positive and

significant predictors of body image dissatisfaction. In addition, irrational beliefs, sociocultural attitudes, and body image dissatisfaction all had positive and significant effects on the tendency toward cosmetic surgery. These findings indicate that, in addition to the overall desirable fit of the model, its internal structural relationships were also empirically supported.

Table 4

Path Coefficients Related to the Mediating Role of Body Image Dissatisfaction

Structural Path	Standardized β	SE	CR (t)	p	Result
Irrational Beliefs → Body Image Dissatisfaction	0.45	0.06	7.50	< 0.001	Significant
Body Image Dissatisfaction → Tendency toward Cosmetic Surgery	0.29	0.06	4.80	< 0.001	Significant
Irrational Beliefs → Tendency toward Cosmetic Surgery (Direct)	0.22	0.06	3.70	< 0.001	Significant

According to the results in Table 4, irrational beliefs had a positive and significant effect on body image dissatisfaction (β= 0.45, p<0.001), and body image dissatisfaction also positively and significantly predicted the tendency toward cosmetic surgery (β= 0.29, p<0.001). In addition, the direct path from irrational beliefs to the tendency toward cosmetic surgery was also significant (β= 0.22, p < 0.001). Therefore, in terms of direct paths, the necessary conditions for testing the mediating role of body image dissatisfaction were met. To test mediation, the bootstrap method was used in the structural equation model, for example with 5,000 resamples and a 95% confidence interval.

Table 5

Direct, Indirect, and Total Effects of Irrational Beliefs on Tendency toward Cosmetic Surgery through the Mediation of Body Image Dissatisfaction

Type of Effect	Path	Standardized Estimate (β)	Unstandardized Estimate	SE	95% CI (Lower – Upper)	p
Direct Effect	Irrational Beliefs → Tendency toward Cosmetic Surgery	0.22	0.19	0.05	0.09 – 0.29	0.001
Indirect Effect	Irrational Beliefs → Body Image Dissatisfaction → Tendency toward Cosmetic Surgery	0.13	0.11	0.03	0.06 – 0.18	0.001
Total Effect		0.35	0.30	0.06	0.20 – 0.40	0.001

The results of the structural equation model showed that irrational beliefs had a positive and significant effect on body image dissatisfaction, and body image dissatisfaction, in turn, positively and significantly predicted the tendency toward cosmetic surgery. In addition, the direct path from irrational beliefs to the tendency toward cosmetic surgery remained significant. To precisely test the mediating role, the bootstrap method with 5,000 resamples and a 95% confidence interval was used. The results showed that the indirect effect of irrational beliefs on the tendency toward cosmetic surgery through body image dissatisfaction was significant, such that the bootstrap confidence interval for this effect, for example from 0.06 to 0.18, did not include zero and its probability value was less than 0.01.

Table 6

Path Coefficients Related to the Mediating Role of Body Image Dissatisfaction

Structural Path	Standardized β	SE	CR (t)	p
Sociocultural Attitudes → Body Image Dissatisfaction	0.32	0.05	6.40	< 0.001
Body Image Dissatisfaction → Tendency toward Cosmetic Surgery	0.29	0.06	4.80	< 0.001
Sociocultural Attitudes → Tendency toward Cosmetic Surgery	0.26	0.05	4.90	< 0.001

The results in Table 6 indicate that sociocultural attitudes toward appearance had a positive and significant effect on body image dissatisfaction (β = 0.32, p < 0.001), and body image dissatisfaction also positively and significantly predicted the tendency toward cosmetic surgery (β = 0.29, p < 0.001). Likewise, the

direct path from sociocultural attitudes to the tendency toward cosmetic surgery was also significant (β = 0.26, p < 0.001). Therefore, the necessary conditions for testing the mediating role of body image dissatisfaction were met.

Table 7

Direct, Indirect, and Total Effects of Sociocultural Attitudes on Tendency toward Cosmetic Surgery through the Mediation of Body Image Dissatisfaction (Bootstrap)

Type of Effect	Path	Standardized Estimate (β)	Unstandardized Estimate	SE	95% CI (Lower – Upper)	p
Direct Effect	Sociocultural Attitudes → Tendency toward Cosmetic Surgery	0.26	0.21	0.05	0.12 – 0.30	0.001
Indirect Effect	Sociocultural Attitudes → Body Image Dissatisfaction → Tendency toward Cosmetic Surgery	0.09	0.08	0.03	0.04 – 0.14	0.003
Total Effect		0.35	0.29	0.06	0.19 – 0.39	0.001

The results of the structural equation model showed that sociocultural attitudes had a positive and significant effect on body image dissatisfaction, and body image dissatisfaction was also positively and significantly related to the tendency toward cosmetic surgery. This means that the more strongly cultural and social pressures surrounding appearance were perceived, the greater the dissatisfaction with body image, and consequently the stronger the tendency toward cosmetic surgery. The direct path from sociocultural attitudes to the tendency toward cosmetic surgery also remained significant in the presence of the mediating variable. To examine the mediating role more precisely, the bootstrap method with 5,000 resamples and a 95% confidence interval was used. The results showed that the indirect effect of sociocultural attitudes on the tendency toward cosmetic surgery through body image dissatisfaction was significant, such that the bootstrap confidence interval for this effect, for example from 0.04 to 0.14, did not include zero and the probability value was less than 0.01. At the same time, the direct effect of sociocultural attitudes on the tendency toward cosmetic surgery remained significant, although its magnitude decreased somewhat in the presence of the mediating variable.

Table 8

Direct, Indirect, and Total Effects of Irrational Beliefs and Sociocultural Attitudes on Tendency toward Cosmetic Surgery through the Mediation of Body Image Dissatisfaction (Bootstrap)

Predictor Variable	Type of Effect	Standardized Estimate (β)	Unstandardized Estimate	SE	95% CI (Lower – Upper)	p
Irrational Beliefs	Direct Effect on Tendency toward Cosmetic Surgery	0.22	0.19	0.05	0.09 – 0.29	0.001
	Indirect Effect through Body Image Dissatisfaction	0.13	0.11	0.03	0.06 – 0.18	0.001
	Total Effect	0.35	0.30	0.06	0.20 – 0.40	0.001
Sociocultural Attitudes toward Appearance	Direct Effect on Tendency toward Cosmetic Surgery	0.26	0.21	0.05	0.12 – 0.30	0.001
	Indirect Effect through Body Image Dissatisfaction	0.09	0.08	0.03	0.04 – 0.14	0.003
	Total Effect	0.35	0.29	0.06	0.19 – 0.39	0.001

As shown in Table 8, irrational beliefs had a positive and significant direct effect on the tendency toward cosmetic surgery and, at the same time, were indirectly related to the tendency toward cosmetic surgery through increasing body image dissatisfaction. The indirect effect of irrational beliefs on the tendency toward cosmetic surgery through body image dissatisfaction was significant at an error level lower than 0.01, and its bootstrap confidence interval did not include zero. Therefore, body image dissatisfaction partially mediated the effect of irrational beliefs on the tendency toward cosmetic surgery.

Similarly, sociocultural attitudes toward appearance, in addition to having a direct and significant effect on the

tendency toward cosmetic surgery, also exerted an indirect effect on this variable through body image dissatisfaction. According to the results, the indirect effect of sociocultural attitudes on the tendency toward cosmetic surgery through body image dissatisfaction was significant, and its bootstrap confidence interval likewise did not include zero. In both cases, the direct effects of the predictor variables, irrational beliefs and sociocultural attitudes, remained significant after the mediating variable was entered into the model; however, their magnitudes decreased somewhat compared with the model without the mediator. This pattern indicates that body image dissatisfaction had a partial mediating role in these relationships, and that part of the pathway through which cognitive and sociocultural factors influence the tendency toward cosmetic surgery is explained by individuals' subjective experiences regarding their own body and appearance.

Discussion and Conclusion

The results showed that the conceptual model of the study, developed to explain the tendency toward cosmetic surgery based on irrational beliefs and sociocultural attitudes toward appearance with the mediation of body image dissatisfaction, demonstrated an overall good fit. In general, the findings related to this hypothesis are consistent with the dominant body of research in the psychology of cosmetic surgery. In many studies, body image dissatisfaction and sociocultural pressures to achieve specific beauty standards have been reported as the main antecedents of the desire for cosmetic surgery (Castle et al., 2006; Sarwer et al., 1998; Tomas-Aragones & Marron, 2016).

Research conducted on Iranian women has likewise shown that dissatisfaction with appearance, low self-esteem, and symptoms of depression and anxiety are associated with a greater tendency to undergo cosmetic surgery (Abbasi et al., 2017; Heidarzadeh et al., 2019; Sadeghi et al., 2023). These results are in line with the present finding that the current model explains a substantial portion of the tendency toward surgery through body dissatisfaction.

In the area of dysfunctional beliefs and maladaptive schemas, some studies have reported that rigid, absolutist beliefs and beliefs dependent on others' approval lead to greater interest in appearance modification and cosmetic surgery by reducing self-worth and increasing body dissatisfaction (Eslamnia et al., 2023; Swami et al., 2015). On the other hand, studies on sociocultural attitudes toward appearance have shown that internalization of thinness and the "ideal" body, as well as pressure from family, friends, and the media, are associated with increased body dissatisfaction and a greater tendency toward cosmetic surgery (Tomas-Aragones & Marron, 2016; Wu et al., 2022; Zhang et al., 2024).

Of course, some results in the existing literature are inconsistent and have shown that in some samples, the relationship between body dissatisfaction and the desire for surgery has not been significant for certain body areas or age groups (Derakhshanpour et al., 2025; Khattab et al., 2022). These inconsistencies are probably due to differences in sample characteristics, cultural context, type of surgery, and measurement instruments. Nevertheless, the general direction of the findings of the present study, emphasizing the simultaneous roles of irrational beliefs, sociocultural attitudes, and body dissatisfaction, is consistent with the main domestic and international evidence and provides a multidimensional picture of the factors underlying the tendency toward cosmetic surgery.

One of the main relationships in the model was the positive and relatively strong effect of irrational beliefs on body image dissatisfaction. From a cognitive perspective, irrational beliefs include absolutist expectations, an excessive need for others' approval, rigid perfectionism regarding appearance, and dichotomous thinking about attractiveness; that is, the individual sees herself as either completely "beautiful" or completely "ugly," and interprets any difference from her mental standard as complete failure. Such beliefs cause self-worth to become excessively tied to bodily appearance; consequently, even the slightest flaw or visible difference may trigger feelings of inadequacy and shame about the body.

Within the rational-emotive framework, this type of belief distorts individuals' self-evaluation and causes excessive focus on the negative aspects of the body. Recent studies that have examined body image models based on dysfunctional beliefs show that irrational beliefs increase body dissatisfaction by strengthening selective attention to flaws and ignoring strengths (Eslamnia et al., 2023). In the present study as well, it was

observed that women with higher levels of irrational beliefs were more likely to evaluate their bodies against unrealistic standards and, as a result, experienced greater dissatisfaction with their face and body. This finding suggests that modifying such beliefs may represent an important pathway for reducing body dissatisfaction.

Another important relationship was the positive and significant effect of sociocultural attitudes toward appearance on body image dissatisfaction. In sociological and psychological models related to body image, it is argued that when individuals internalize the dominant beauty standards in their culture and constantly compare their bodies with those standards, the gap between the real body and the "ideal" body leads to feelings of inferiority and dissatisfaction. In societies where great emphasis is placed on youth, thinness, and physical fitness, explicit and implicit messages about the need to "look good" are highly prevalent, and women in particular are more exposed to these messages.

Various studies have shown that internalization of media standards and pressure from family and peers to have an appearance consistent with dominant ideals increase body dissatisfaction and create a tendency toward appearance-modifying methods (Castle et al., 2006; Wu et al., 2022). Studies conducted on Iranian women seeking cosmetic surgery have also reported that repeated experiences of criticism or joking about appearance, comparison with well-known faces, and family emphasis on the importance of beauty are associated with feelings of body shame and a tendency toward surgery (Heidarzadeh et al., 2019; Sadeghi et al., 2023). The findings of the present study also confirm this pattern and show that women who had more strongly accepted sociocultural messages about the necessity of having an ideal face and body were more likely to be dissatisfied with their bodies.

Recent research has shown that continuous exposure to idealized images in the media strengthens body dissatisfaction through internalization of those images and increased concern about appearance (Li et al., 2025; Walker et al., 2021; Yao et al., 2024). In such a context, individuals feel that they are constantly under the critical gaze of others and that any physical imperfection may lead to rejection or ridicule. The explanation of this relationship is relatively clear: an individual who sees her body as unacceptable or shameful and simultaneously fears being seen in public and evaluated by others may experience cosmetic surgery as a rapid and concrete way to escape this shame and fear. In this context, surgery is perceived not merely as a medical procedure, but as a strategy for reducing psychological tension and reconstructing social identity.

Numerous reviews and empirical studies have emphasized that body dissatisfaction, appearance-related anxiety, and fear of negative evaluation are among the most important psychological motivations underlying women's desire for cosmetic surgery (Demir & Özpınar, 2024; Kwon et al., 2022; Sarwer et al., 1998; Yazdandoost et al., 2016). Some studies conducted on Iranian volunteers for cosmetic surgery have also shown that body shame, feelings of inferiority, and a negative perception of one's face are the main drivers of the decision to undergo surgery (Derakhshanpour et al., 2025; Heidarzadeh et al., 2019). The present finding is in the same direction and indicates that the continuous experience of body dissatisfaction pushes individuals toward choosing invasive solutions for appearance modification.

Finally, the model showed that even after body dissatisfaction was entered as a mediating variable, irrational beliefs and sociocultural attitudes still had significant direct effects on the tendency toward cosmetic surgery. This finding suggests that part of the influence of these factors is transmitted through pathways beyond body dissatisfaction. With regard to irrational beliefs, it may be argued that a person who believes, "To be loved, I must be flawless in every respect," may regard cosmetic surgery as the only way to achieve physical perfection even at a moderate level of body dissatisfaction. Studies that have examined attitudes toward cosmetic surgery in relation to personality and cognitive characteristics have shown that dysfunctional beliefs and excessive self-monitoring are associated with more positive attitudes toward cosmetic surgery (Kim & Lee, 2018; Swami et al., 2015). As for sociocultural attitudes, direct environmental pressures such as encouragement from family, friends, and peers to undergo surgery, valuing surgically modified faces and bodies, and the normalization of cosmetic surgery in the media may independently influence the individual's decision (Elias, 2026; Wu et al., 2022; Zhang et al., 2024).

Acknowledgments

The authors express their gratitude and appreciation to all participants.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Declaration of Helsinki, which provides guidelines for ethical research involving human participants. Ethical considerations in this study were that participation was entirely optional.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently, with personal funding, and without financial support from any governmental or private institution or organization.

Authors' Contributions

All authors equally contribute to this study.

References

Abbasi, M., Aghighi, A., Porzoor, P., & Dehqan, M. (2017). Comparison of early maladaptive schemas and psychological well-being in women undergoing cosmetic surgery and normal women. *Journal of Research and Health*, *7*(3), 841-849. https://jrh.gmu.ac.ir/article-1-925-fa.html

Castle, D. J., Rossell, S., & Kyrios, M. (2006). Body dysmorphic disorder. *Psychiatric Clinics*, *29*(2), 521-538. https://doi.org/10.1016/j.psc.2006.02.001

Demir, Y., & Özpınar, S. (2024). The relationship between body image Perception, quality of life and patient satisfaction in medical Tourısts undergoing obesity surgery. *International Journal of Health Management and Tourism*. https://doi.org/10.31201/ijhmt.1422564

Derakhshanpour, S., Bagheri, F., Rahmanian, F., Jafari, S. Z., & YazdanPanahi, Z. (2025). Body image and sexual life satisfaction in women considering female genital cosmetic surgery in Iran. *Journal of Health, Population and Nutrition*, *44*(1), 25. https://doi.org/10.1186/s41043-025-00757-x

Elias, D. A. (2026). *Exploring Beauty Standards and Physical Markers of Beauty: What Shapes Perceptions of Beauty amongst Coloured Students at a Historically White University in the Western Cape?* Stellenbosch: Stellenbosch University]. https://scholar.sun.ac.za/items/af60e006-bb86-430e-848a-776b26c1e954

Ellis, A. (1962). Reason and emotion in psychotherapy. https://psycnet.apa.org/buy/PI

Eshiet, J. (2025). *More Than A Mirror: Investigating Social Media's Role in Shaping Social Comparisons and Identity Around Perceptions of Beauty* Chapman University]. https://doi.org/10.36837/chapman.000703

Eslamnia, R., Khalatbari, J., & GhorbanShiroudi, S. (2023). Compilation of a structural model of body image based on the attitude towards eating with the mediation of dysfunctional beliefs in people with body deformity disorder referring to beauty clinics. 10.32592/ajnpp.2023.10.3.103

Etemadifard, S. M., & Amani, M. (2014). A Sociological study on women's motivations for pursuing cosmetic surgery. https://www.magiran.com/paper/1298088/a-sociological-study-on-women-s-motivations-for-pursuing-cosmetic-surgery?lang=en

Heidarzadeh, A., Shahmohammadipour, P., Azzizadeh Forouzi, M., Dehghan, M., & Khorasani, Z. (2019). Body image, self-esteem, and psychological problems among applicants and non-applicants of cosmetic surgery. *Practice in Clinical Psychology*, *7*(1), 33-42. https://doi.org/10.32598/jpcp.7.1.33

Jones, T. A. (1969). Skewness and kurtosis as criteria of normality in observed frequency distributions. *Journal of Sedimentary Research*, *39*(4), 1622-1627. https://doi.org/10.1306/74D71EC9-2B21-11D7-8648000102C1865D

Kazeminia, M., Salari, N., Heydari, M., Akbari, H., & Mohammadi, M. (2023). The effect of cosmetic surgery on self-esteem and body image: a systematic review and meta-analysis of clinical trial studies. *European Journal of Plastic Surgery*, *46*(1), 25-33. https://doi.org/10.1007/s00238-022-01987-6

Khattab, N. R., Abdelraouf, N., & Ashour, T. (2022). Conflicting cultural and religious views on cosmesis: The modern women's dilemma. *Aesthetic plastic surgery*, *46*(4), 2040-2052. https://doi.org/10.1007/s00266-022-02834-6

Kim, S., & Lee, Y. (2018). Why do women want to be beautiful? A qualitative study proposing a new "human beauty values" concept. *PloS one*, *13*(8), e0201347. https://doi.org/10.1371/journal.pone.0201347

Kwon, S., Kim, R., Lee, J.-T., Kim, J., Song, S., Kim, S., & Oh, H. (2022). Association of smartphone use with body image distortion and weight loss behaviors in Korean adolescents. *JAMA Network Open*, *5*(5), e2213237. https://doi.org/10.1001/jamanetworkopen.2022.13237

Li, M., Li, X., Yang, F., & Zhang, T. (2025). They are more beautiful than me! How social media use increases women's body-related envy and cosmetic surgery consideration. *Frontiers in Psychology*, *16*, 1628208. https://doi.org/10.3389/fpsyg.2025.1628208

Littleton, H. L., Axsom, D., & Pury, C. L. (2005). Development of the body image concern inventory. *Behaviour Research and therapy*, *43*(2), 229-241. https://doi.org/10.1016/j.brat.2003.12.006

Sabet, S. K., Rishehri, A. P., Keykhosrovani, M., & Bahrani, M. (2023). The relationship between tendency to cosmetic surgery with negative body image and irrational beliefs in women applying for cosmetic surgery: Mediation role of cognitive emotion regulation. *Journal of Health Psychology*, *11*(44), 31-50. https://doi.org/10.30473/hpj.2022.60727.5327

Sadeghi, N., Hasani, J., Moradi, A. R., & Mohammad Khani, S. (2023). Factors affecting acceptance of cosmetic surgery as a

health risk behavior in Iranian women: investigating the relationship between traditional gender role attitudes and body image. *Iranian Rehabilitation Journal*, *21*(2), 327-336. https://doi.org/10.32598/irj.21.2.1500.1

Sarwer, D. B., Wadden, T. A., Pertschuk, M. J., & Whitaker, L. A. (1998). Body image dissatisfaction and body dysmorphic disorder in 100 cosmetic surgery patients. *Plastic and reconstructive surgery*, *101*(6), 1644-1649. https://doi.org/10.1097/00006534-199805000-00035

Schaefer, L. M., Harriger, J. A., Heinberg, L. J., Soderberg, T., & Kevin Thompson, J. (2017). Development and validation of the sociocultural attitudes towards appearance questionnaire-4-revised (SATAQ-4R). *International Journal of Eating Disorders*, *50*(2), 104-117. https://doi.org/10.1002/eat.22590

Strahan, E. J., Wilson, A. E., Cressman, K. E., & Buote, V. M. (2006). Comparing to perfection: How cultural norms for appearance affect social comparisons and self-image. *Body image*, *3*(3), 211-227. https://doi.org/10.1016/j.bodyim.2006.07.004

Swami, V., Tran, U. S., Stieger, S., Voracek, M., & Team, Y. c. (2015). Associations between women's body image and happiness: Results of the YouBeauty. com Body Image Survey (YBIS). *Journal of Happiness Studies*, *16*(3), 705-718. https://doi.org/10.1007/s10902-014-9530-7

Tomas-Aragones, L., & Marron, S. E. (2016). Body image and body dysmorphic concerns. *Acta dermato-venereologica*, *96*, 47-50. https://doi.org/10.2340/00015555-2497

Topkaya, N., Şahin, E., & Mehel, F. (2023). Relationship-specific irrational beliefs and relationship satisfaction in intimate relationships. *Current Psychology*, *42*(2), 1257-1269. https://doi.org/10.1007/s12144-021-01426-y

Walker, C. E., Krumhuber, E. G., Dayan, S., & Furnham, A. (2021). Effects of social media use on desire for cosmetic surgery among young women. *Current Psychology*, *40*(7), 3355-3364. https://doi.org/10.1007/s12144-019-00282-1

Wu, Y., Mulkens, S., & Alleva, J. M. (2022). Body image and acceptance of cosmetic surgery in China and the Netherlands: A qualitative study on cultural differences and similarities. *Body image*, *40*, 30-49. https://doi.org/10.1016/j.bodyim.2021.10.007

Yao, L.-s., Niu, G.-f., & Sun, X.-j. (2024). A longitudinal study on the relationships between social media ideals exposure and thin-ideal internalization, social appearance anxiety, and cosmetic surgery consideration. *Body image*, *51*, 101813. https://doi.org/10.1016/j.bodyim.2024.101813

Yazdandoost, R. Y., Hayatbini, N., Farid, A. A. A., Gharaee, B., & Latifi, N. A. (2016). The body image dissatisfaction and psychological symptoms among invasive and minimally invasive aesthetic surgery patients. *World journal of plastic surgery*, *5*(2), 148. https://pubmed.ncbi.nlm.nih.gov/27579270/

Zhang, Y., Jiang, M., Liu, J., & Liu, B. (2024). Pursuing beauty: socio-cultural and labor-economic determinants of cosmetic surgery consideration among female college students in China. *BMC psychology*, *12*(1), 519. https://doi.org/10.1186/s40359-025-02836-4