Research Paper

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

Negar Sadeghi[1*], Jafar Hasani[1], Ali Reza Moradi[1], Shahram Mohammad Khani[1]

1. Department of Clinical Psychology, Faculty of Psychology & Education, Kharazmi University, Tehran, Iran.

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ABSTRACT

Objectives: The present study aims to design and test a model of factors affecting the acceptance of cosmetic surgery in Iranian female students.

Methods: A sample of 600 female students aged 18 to 35 were selected from Kharazmi University using cluster random sampling. The participants completed six questionnaires: The short version of the attitude toward women scale, the beliefs about appearance scale, the body areas satisfaction scale, the body image coping strategies inventory, the rhinoplasty outcome evaluation, and the acceptance of cosmetic surgery scale. A structural model was used to examine the relationships among research variables.

Results: Results showed a good level of fit to the data and proposed that gender role attitudes can facilitate cosmetic surgery in women by mediator roles of dysfunctional appearance beliefs, body dissatisfaction, coping strategies, and outcome expectancy.

Discussion: The study highlights the importance of traditional gender role attitudes in body dissatisfaction and cosmetic surgeries among Iranian women. Indeed, traditional gender role attitudes can encourage women to conform to beauty standards and undertake cosmetic procedures. These procedures can expose them to risks and unwanted consequences. Therefore, future research and prevention programs should be paid more attention to these traditional beliefs.

*** Corresponding Author:**
Negar Sadeghi, PhD.
Address: *Department of Clinical Psychology, Faculty of Psychology & Education, Kharazmi University, Tehran, Iran.*
Tel: *+98 (21) 88848938*
E-mail: *negar.sa.35@gmail.com*

Highlights

- This study investigates risk factors affecting the acceptance of cosmetic surgery among Iranian women.
- We investigated the relationship between traditional gender role attitudes and body image.
- The study also investigated outcomes expectancies as the mediating variable.

Plain Language Summary

Cosmetic surgeries have dramatically increased among Iranian women. Considering that these surgeries can have risks to mental and physical health in women, it is important to find risk factors of women′s decision-making in Iranian society. In this study, we assumed gender role attitudes and body image as key risk factors. Also, the role of mediator variables was investigated in a structural model. According to the model, the relationship between gender role attitudes and different dimensions of body image can lead to acceptance of cosmetic surgeries, and outcomes expectancies may mediate these relations.

Introduction

Interest in cosmetic surgery has risen in recent decades. According to the American Society for Aesthetic Plastic Surgery statistics (ASPS), 13.5 billion cosmetic procedures were performed in 2020, while women undertook more than 12.4 million cases [1]. These statistics indicate that women received 92% of cosmetic procedures.

Although cosmetic surgery can result in complications for women's health, many women accept to undergo various cosmetic surgeries. So, the question of why women use cosmetic surgery to enhance their appearance arises.

The literature shows that society forces women to follow beauty standards. Even in some cultures, gender roles define beauty as a feminine trait and dictate certain beauty standards to women. These standards, which usually are unrealistic, can lead to body dissatisfaction in women. In this regard, Cash et al. [2] investigated traditional gender role attitudes and body image in women′s students. They found a positive relationship between gender role attitudes and body dissatisfaction. This finding is important because body image is a main factor for cosmetic surgery. Most research has shown that body dissatisfaction is related to cosmetic surgery, and people with body dissatisfaction are more interested in cosmetic surgery [3-10]. Standards of beauty that women try to attain and can lead to body dissatisfaction may originate from traditional gender roles. Although a relationship exists between traditional gender role attitudes and body image, the nature of this relationship is complicated. Therefore, it is necessary to clarify how traditional gender role attitudes can lead to body dissatisfaction and cosmetic surgery. We hypothesized that this process is based on a cognitive behavioral (CB) perspective on body image. This perspective elucidates the multidimensional definition of body image. From this perspective, body image is not an isolated phenomenon; rather refers to several interrelated variables. The model emphasizes social learning and conditioning processes and the cognitive mediation of behaviors and emotions [11]. It also supposes that body image has cognitive, emotional, and behavioral dimensions. Thus, we should investigate all body image dimensions to understand body dissatisfaction and related phenomenon like acceptance of cosmetic surgery. Accordingly, we suppose that the cognitive process can stimulate body dissatisfaction as an emotional dimension. Finally, the behavioral dimension determines how people select cosmetic surgery. In this regard, some studies have shown that women are dependent on traditional gender roles and invest in their appearance and their bodies more than other women [12, 13]. These women organize dysfunctional attitudes around appearance and beauty.

Consequently, traditional gender role attitudes may affect the development of dysfunctional appearance schemas in women. Dysfunctional appearance beliefs define the importance of appearance in achievement, self-concept, and interpersonal relationships and cause more body dissatisfaction [14]. Spangler [15] investigated the importance of dysfunctional appearance beliefs for eating disorders and showed beliefs about appearance predicted dietary restriction and body dissatisfaction. Based on the CB model, in the final step, people manage

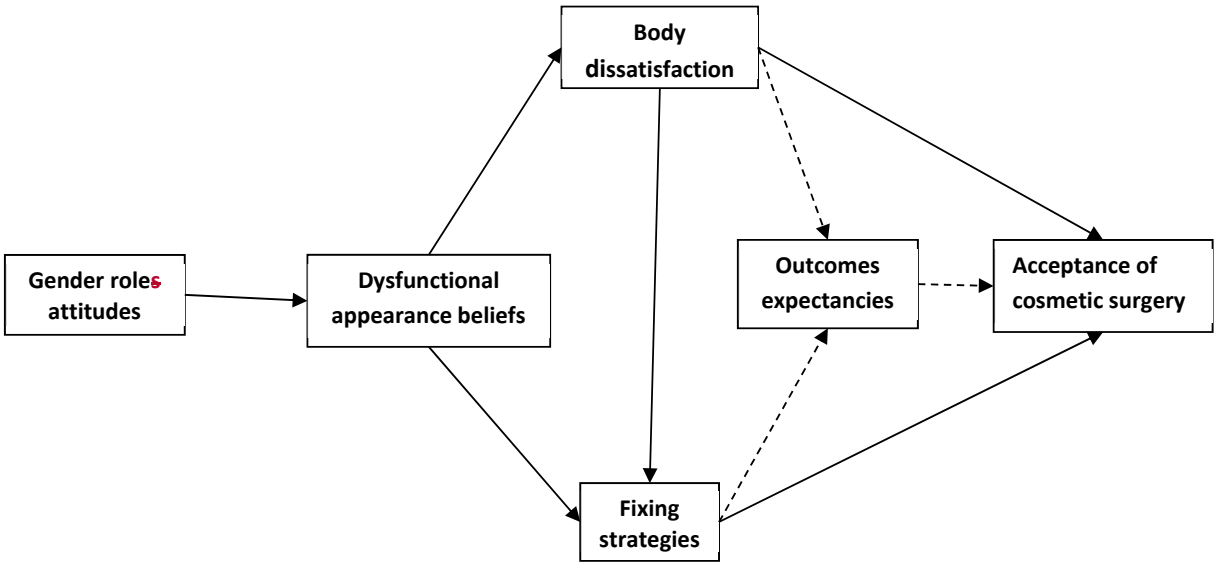

Figure 1. The proposed model of acceptance of cosmetic surgery in women

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body dissatisfaction through coping strategies. These strategies include avoidance, appearance fixing, and acceptance. Avoidance is an attempt to escape or avert stressful body-image situations [16]. Appearance fixing is directed at altering appearance by covering, camouflaging, or correcting the perceived defect, and positive rational acceptance entails strategies emphasizing acceptance of the challenging event and positive self-care or rational self-talk about one's appearance [16]. So, cosmetic surgery encompasses appearance-fixing strategies. Research also confirms that appearance-fixing strategies are associated with more maladaptive body image strategies like eating disorders, dieting, excessive exercise, and interest in cosmetic surgery [17-19]. Albeit, choosing cosmetic procedures can depend on women's expectations about cosmetic surgeries. Some women imagine cosmetic surgery always results in positive outcomes and more beauty. Women may believe they are not at risk because their friend has undergone cosmetic surgery without complications. Most women think they are less likely to experience health or beauty problems.

Accordingly, it seems that acceptance of cosmetic surgery is a process that can influence cosmetic surgery and has not been investigated adequately. The present study aims to investigate this process and the relationship between traditional gender roles and emotional, cognitive, and behavioral variables based on the CB model.

Considering that cosmetic surgeries have dramatically increased in Iranian women, we investigate factors affecting the acceptance of cosmetic surgery as a health risk behavior in Iranian women. This model proposes that gender role attitudes can facilitate cosmetic surgery in women. In this model, traditional gender role attitudes are considered latent variables, and dysfunctional appearance belief, fixing strategies, and outcome expectancies as mediating variables. The conceptual model of the study is shown in Figure 1.

Materials and Methods

The study participants were 600 female students aged 18 to 35, selected from Kharazmi University using random cluster sampling. Determining sample size for structural equation modeling (SEM) is a challenge for researchers because SEM requires a "sufficient" sample size to produce plausible results. Various rules of thumb have been proposed, including: A) A minimum sample size of 100 or 200, B) 5 or 10 observations per estimated parameter, and C) 10 cases per variable [20]. We have used the last rule (10 cases per variable) to determine sample size. The participants were in three levels: Bachelor 50%, master 30%, and doctorate 20%. First, we randomly selected 5 girls′ dormitory from various departments of Kharazmi University. Then, every building of the girls′ dormitory was considered a cluster, and participants were randomly selected within each building. Research data were collected over two months. The data were completed through a paper-pencil questionnaire. Psychology experts as investigators distributed the questionnaires among students. All students participated voluntarily in the research, and the investigator provided the necessary help. The average time for answering questions was 30 minutes. The questionnaires were the short version of the attitude toward women scale (AWS), the beliefs about

appearance scale (BAAS), the body areas satisfaction scale (BASS), the body image coping strategies inventory (BICSI), rhinoplasty outcome evaluation (ROE), and the Acceptance of Cosmetic Surgery Scale (ACSS).

The gender role attitudes (AWS)

We used the short version of AWS developed by Spence and Helmreich (1978). This scale assesses a person's beliefs about women's rights, roles, and responsibilities in society. In this study, the 15-item short version of the scale was used. The items on this scale are rated on a 5-point scale ranging from 0 (disagree strongly) to 4 (agree strongly). These items consist of statements about the roles and behaviors of women in a wide range of areas, including vocational, educational, freedom and independence, sexual behavior, and marital roles and responsibilities in society. Indeed, the AWS measures attitudes concerning the fights, roles, obligations, and privileges that women should have in modem society. It provides scores along a continuum, ranging from the endorsement of traditional sex roles to an egalitarian view of the roles of women and men [21]. Therefore, the high scores on the scale indicate modern attitudes about women's societal roles, and the low scores reflect traditional gender role attitudes. The scale was used in some studies about gender, and its validity and reliability were reported as adequate [22-24]. The Cronbach α of the scale in this study was 0.60.

Dysfunctional appearance beliefs

The BAAS was constructed by Spangler and Stice (2001) to measure dysfunctional beliefs about physical appearance. BAAS measures dysfunctional attitudes about bodily appearance, particularly the perceived importance of appearance for achievement, self-view, and relationships [25]. The scale has 20 items rated on a 5-point Likert scale. Spangler and Stic [26] reported the reliability of BAAS using internal consistency and test-retest reliability. The Cronbach α in three samples was between 0.94 and 0.96. Also, the test-retest reliability coefficient attains 0.83. The scale was used in several studies, and its validity and reliability were reported as desirable [27-30]. In the present study, Cronbach α was 0.91.

Body dissatisfaction

Body image satisfaction was measured using the BASS of the multidimensional body-self relations questionnaire (MBSRQ-AS). The BASS subscale consists of 9 items assessing how people are satisfied with different body areas such as the face, hair, lower body, middle body, upper body, height, weight, and overall satisfaction with their body. The items are rated on a 5-point Likert scale. Cash has reported the test re-test reliability of BASS between 0.74 and 0.86 [31]. This scale is widely used, and its validity and reliability have been established [32-37]. In the present study, the Cronbach α was 0.80.

Appearance fixing strategies

The fixing subscale from BICSI was developed by Cash, (2005) [31]. This scale assesses cognitive and behavioral activities for managing of threats or challenges to body image. It consists of 3 subscales: Avoidance, appearance fixing, and positive rational acceptance. The avoidance subscale has 8 items assessing ignoring stressful situations for body image. The acceptance subscale has 11 items that evaluate the acceptance of self and appearance, and the fixing subscale has 10 items that measure fixing strategies. Cash et al. [38] reported the reliability of BICSI using internal consistency. The Cronbach α in 3 subscales were between 0.74 and 0.91 in women: Avoidance (0.74), appearance fixing (0.91), and positive rational acceptance (0.80). In the present study, the appearance fixing subscale was used. This scale has been shown to have desirable validity and reliability [39-42]. The Cronbach α for this subscale was 0.70.

Outcomes expectancies

We used ROE that was created by Alsarraf. This scale assesses the satisfaction of individuals from Rhinoplasty surgery. Satisfaction includes 3 areas: Physical, emotional, and social. In this study, participants were asked to imagine that if they underwent cosmetic surgery with Rhinoplasty procedures, they would have to respond. The ROE questionnaire has 6 questions, scored on a 5-point scale from 0 to 4. The scoring can vary between 0 to 24, and the scores have to divide by 24 and multiplied by 100, which leads to a score varying between 0 and 100. The higher scores indicate a person's satisfaction with the rhinoplasty. REO has been shown desirable validity and reliability in many studies [43-46]. In my research, internal consistency was 0.65.

The acceptance of cosmetic surgery

The ACSS was developed by Henderson-King and Henderson-King (2005) [47]. It has 15 items that evaluate different aspects of cosmetic surgery attitudes and consists of 3 subscales: Social, intrapersonal, and consider. The social subscale (5 items) indicates social motivations for deciding to have cosmetic surgery (if a simple procedure made me more attractive to others, I

Table 1. Mean±SD and data normality for all variables

Variables	Min	Max	Mean±SD	Skew	Kurtosis
Gender role attitude	0	21	10±4.67	-0.32	0.34
Dysfunctional appearance attitude	5	35	13±4.64	0.46	0.44
Body dissatisfaction	1	5	1.69±0.82	1.38	1.23
Fixing strategies	1	5	2.5±1.13	0.40	0.45
Outcome expectancy	0	4	2.12±1.25	0.18	1.20
Cosmetic surgery	5	25	15.26±5.88	0.11	0.42

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would try it). The intrapersonal subscale (5 items) indicates self-oriented reasons for choosing cosmetic surgery (cosmetic surgery is good because it can help people feel better about themselves). Consider subscale (5 items) assesses the likelihood of having cosmetic surgery in the future (I have sometimes thought about having cosmetic surgery). The items ranged from 1 (strongly disagree) to 7 (strongly agree) on a 5-point Likert scale, with higher scores indicating more positive attitudes toward cosmetic surgery. Henderson-King and Henderson-King. [47] calculated the Cronbach α coefficients and means for the 3 subscales across the 4 studies. The Cronbach α values for consider subscale were between 0.82 and 0.96, the social subscale between 0.84 and 0.88, and the interpersonal subscale between 0.88 and 0.91. In the present study, ACSS had an overall α value of 0.91. This scale is widely used in research and various cultures and has been shown to have desirable validity and reliability [48-53].

Results

In this research, first, data were screened for normality of distribution. There are all variables between 2 and -2 in skewness and kurtosis. So, the data were normally distributed. Also, the Mean±SD for all variables are presented in Table 1.

Second, a structural model was formulated to predict acceptance of cosmetic surgery in Iranian females based on a body image model that explains body image and its problems from a cognitive behavioral perspective. SEM with maximum likelihood estimation was conducted using LISREL software, version 8.8. Path analysis revealed that all of the coefficients are significant. According to these results, gender role attitude significantly predicts dysfunctional appearance beliefs. Also, body dissatisfaction, coping strategies, and outcomes expectancies mediated the relationship among gender role attitudes, dysfunctional appearance beliefs, and cosmetic surgery in women. Beta and gamma coefficients for the model are shown in Figure 2.

Consequently, a set of fit indices was used to evaluate the model. These indices are shown in Table 2 and include minimum fit function chi-square, root mean square error of approximation (RMSEA), root mean square residual (RMR), absolute fit indices (GFI, CFI), normed fit index (NFI), comparative fit index (CFI), incremental fit index (IFI), and relative fit index (RFI). According to Maccallam et al. [54], values lower than 0.05 for RMSEA indicate a good fit to data, and higher than 0.1 shows a weak fit. Also, values between 0.05 and 0.08 indicate an acceptable fit to the data.

Discussion

The current study aims to design a model for accepting cosmetic surgery in Iranian females, emphasizing traditional gender roles. Hence, a model was formulated and tested. According to this model, gender role attitudes result in dysfunctional appearance attitudes in women.

Table 2. The goodness of fit indices for the structural model

Indices	x	x^2/df	df	RMISER	Standardized RMR	GFI	NFI	CFI	IFI	RFI
Value	852.19	2.70	315	0.05	0.05	0.90	0.92	0.95	0.95	0.92

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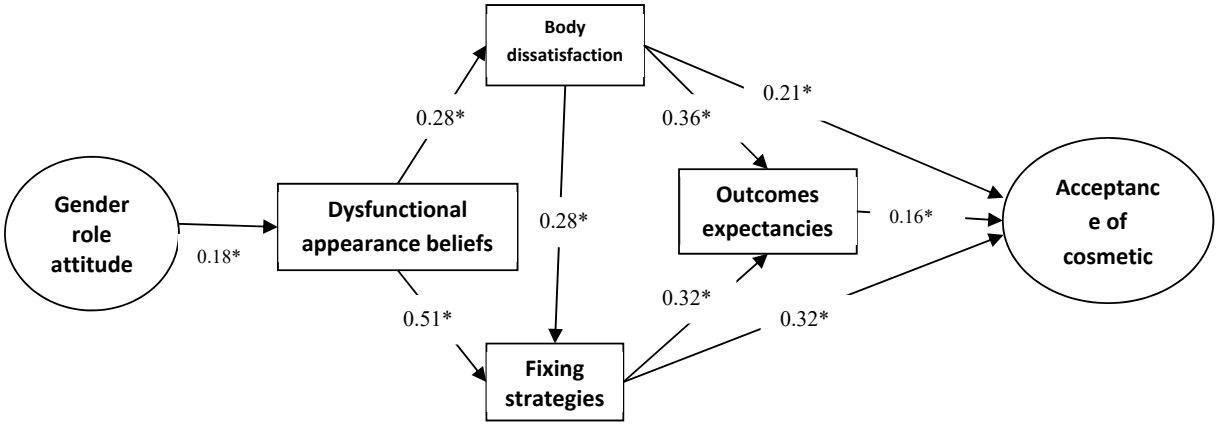

Figure 2. Factor loadings and path coefficients for the final structural model

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*P<0.005.

Thus, these attitudes that usually originate in culture may increase women's vulnerability to body image dissatisfaction. In this regard, it is believed that in most Asian cultures, there is much more pressure on women than men regarding physical appearances. Parents may exert pressure on their daughters through explicit comments about appearances or via implicit expectations to keep up appearances, while for men, the focus of attention is more on educational and occupational attainment. Parents may also exert additional pressure on their daughters to be beautiful enough to attract a suitable partner, as a married daughter is the desired social norm. For some Asian American women, not finding a marriage partner can damage their self-image, even if they are academically or occupationally successful, as they are told that failure to marry is a serious deficiency on their part [55]. So, women and men more concerned with adherence to gender-stereotyped roles are more susceptible to ideal body messages, but women are generally more vulnerable due to their subordinate societal position. The social processes related to gender role stereotyping lead to societal expectations that women are better suited to 'feminine' roles and men to 'masculine' roles [56]. The results are consistent with previous studies that have indicated gender role attitudes are related to appearance investment [12, 13, 57]. Also, they have revealed that women with dysfunctional appearance attitudes reported body dissatisfaction and adherence to body modification strategies [58-66].

In the second step, we must consider that not all women with body dissatisfaction use cosmetic surgeries to enhance their appearance. It seems that coping strategies and outcome expectancies are the important factors influencing women's decision to undergo cosmetic surgeries. Only women who have positive expectations from cosmetic surgery accept it. Correspondingly, negative expectations can inhibit acceptance of cosmetic surgery. According to the result, women with more positive expectancies about cosmetic surgery are more likely to select surgery procedures to enhance their appearances, especially in societies where cosmetic surgery is prevalent, and many women experience cosmetic surgery and report satisfaction with cosmetic surgery without considering its risks and real outcomes.

Consequently, in this study, we had several limitations. First, our sample was limited to Iranian women, which can cause problems with the generalization of results, especially regarding variables that depend on culture, such as traditional gender role attitudes and body image. Second, research about gender produces sensitivities in societies where speaking about all dimensions of gender is Taboo. As a result, some women do not reflect real ideas in questionnaires, which can influence results. Third, the present study was carried out in a student sample, and it is one of the research limitations because the views of students about gender roles and even body image can be different from other women. So, it is suggested that research related to the gender domain carry out with various samples.

Conclusion

In societies where traditional gender roles are powerful for men and women, appearance investment for women is more common because, in these societies, gender role attitudes send the message that beauty is a feminine trait and is part of feminine roles. Thus, women try to attain beauty even through cosmetic surgery, especially

in countries where cosmetic surgery is frequent and inexpensive. The present study also showed that body image is a key factor in understanding cosmetic surgery in women, and the concept is multidimensional. Therefore, we should consider the roles of cognitive, emotional, and behavioral dimensions of body image. Also, the role of outcome expectancies as an important variable has not been investigated sufficiently, and future research should focus on the field. Finally, the effective factors influencing cosmetic surgery should be explored together with other variables,

Ethical Considerations

Compliance with ethical guidelines

All ethical Issues were considered in this article. The research meets all applicable standards concerning the ethics of survey research throughout the processes of data collection, data analysis, and reporting. Informed written consent has beenobtained from individuals.

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Authors' contributions

Conceptualization and supervision: Negar Sadeghi, Jafar Hasani, Ali Reza Moradi; Methodology: Negar Sadeghi; Investigation, data collection, data analysis and writing the original draft: Negar Sadeghi; Review and editing: Jafar Hasani, Ali Reza Moradi and Shahram Mohammadkhani.

Conflict of interest

The authors declared no conflict of interest.

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References

[1] American Society of Plastic Surgery. Cosmetic Procedures trends statistics. Arlington Heights: American Society of Plastic Surgery; 2020. [Link]

[2] Cash T, Ancis J, Strachan MD. Gender attitudes, feminist identity, and body images among college women. Sex Roles. 1997; 36(7):433-47. [DOI:10.1007/BF02766682]

[3] Di Gesto C, Nerini A, Policardo GR, Matera C. Predictors of acceptance of cosmetic surgery: Instagram images-based activities, appearance comparison and body dissatisfaction among women. Aesthetic Plastic Surgery. 2022; 46(1):502-12. [DOI:10.1007/s00266-021-02546-3] [PMID] [PMCID]

[4] Higgins S, Wysong A. Cosmetic surgery and body dysmorphic disorder - an update. International Journal of Women's Dermatology. 2017; 4(1):43-8. [DOI:10.1016/j.ijwd.2017.09.007] [PMID] [PMCID]

[5] Callaghan GM, Lopez A, Wong L, Northcross J, Anderson KR. Predicting consideration of cosmetic surgery in a college population: A continuum of body image disturbance and the importance of coping strategies. Body Image. 2011; 8(3):267-74. [DOI:10.1016/j.bodyim.2011.04.002] [PMID]

[6] Frederick DA, Lever J, Peplau LA. Interest in cosmetic surgery and body image: Views of men and women across the lifespan. Plastic and Reconstructive Surgery. 2007; 120(5):1407-15. [DOI:10.1097/01.prs.0000279375.26157.64] [PMID]

[7] Lunde C. Acceptance of cosmetic surgery, body appreciation, body ideal internalization, and fashion blog reading among late adolescents in Sweden. Body Image. 2013; 10(4):632-5. [DOI:10.1016/j.bodyim.2013.06.007] [PMID]

[8] Swami V, Arteche A, Chamorro-Premuzic T, Furnham A, Stieger S, Haubner T, et al. Looking good: Factors affecting the likelihood of having cosmetic surgery. European Journal of Plastic Surgery. 2008; 30(5):211-8. [DOI:10.1007/s00238-007-0185-z]

[9] Swami V. Body appreciation, media influence, and weight status predict consideration of cosmetic surgery among female undergraduates. Body Image. 2009; 6(4):315-7. [DOI:10.1016/j.bodyim.2009.07.001] [PMID]

[10] Nerini A, Matera C, Di Gesto C, Policardo GR, Stefanile C. Exploring the links between self-compassion, body dissatisfaction, and acceptance of cosmetic surgery in young italian women. Frontiers in Psychology. 2019; 10:2698. [DOI:10.3389/fpsyg.2019.02698] [PMID] [PMCID]

[11] Cash TF. Cognitive-behavioral perspectives on body image. Encyclopedia of Body Image and Human Appearance. 2012; 1:334-42. [DOI:10.1016/B978-0-12-384925-0.00054-7]

[12] Gillen MM, Lefkowitz ES. Gender role development and body image among male and female first year college students. Sex Roles. 2006; 55(1):25-37. [DOI:10.1007/s11199-006-9057-4]

[13] Cash TF, Santos MT, Williams EF. Coping with body-image threats and challenges: validation of the body image coping strategies inventory. Journal of Psychosomatic Research. 2005; 58(2):190-9. [DOI:10.1016/j.jpsychores.2004.07.008] [PMID]

[14] Cooper MJ. Cognitive theory in anorexia nervosa and bulimia nervosa: Progress, development and future directions. Clinical Psychology Review. 2005; 25(4):511-31. [DOI:10.1016/j.cpr.2005.01.003] [PMID]

[15] Spangler DL. Testing the cognitive model of eating disorders: The role of dysfunctional beliefs about appearance. Behavior Therapy. 2002; 33(1):87-105. [DOI:10.1016/S0005-7894(02)80007-7]

[16] Dhurup M, Nolan VT. Body image coping strategies among university students and variations in terms of gender in a developing country. The Anthropologist. 2014; 18(1):217-25. [DOI:10.1080/09720073.2014.11891539]

[17] Koff E, Sangani P. Effects of coping style and negative body image on eating disturbance. International Journal of Eating Disorders. 1997; 22(1):51-6. [DOI:10.1002/(SICI)1098-108X(199707)22:13.0.CO;2-1]

[18] Smith-Jackson T, Reel JJ, Thackeray R. Coping with bad body image days: Strategies from first-year young adult college women. Body Image. 2011; 8(4):335-42. [DOI:10.1016/j.bodyim.2011.05.002] [PMID]

[19] Farid M, Kamrani MA. The relationship between body image coping strategy and eating disorders among Iranian adolescent girls. Bali Medical Journal. 2016; 5(1):17-22. [DOI:10.15562/bmj.v5i1.151]

[20] Wolf EJ, Harrington KM, Clark SL, Miller MW. Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. Educational and Psychological Measurement. 2013; 76(6):913-34. [DOI:10.1177/0013164413495237] [PMID] [PMCID]

[21] Yoder JD, Rice RW, Adams J, Priest RF, Prince HT. Reliability of attitude toward woman scale (AWS) and personal attributes Questionaire (PAQ). Sex Roles. 1982; 8(6):651-7. [DOI:10.1007/BF00289898]

[22] Delevi R, Bugay A. Assessing reliability and validity of the 15-item short version of the attitudes toward women scale (AWS) among Turkish students. Journal of International Womens Studies. 2013; 14(1):263-72. [Link]

[23] Whatley MA. The dimensionality of the 15 item attitudes toward women scale. Race, Gender & Class. 2008; 15(1-2):265-73. [Link]

[24] Stanley G, Boots M, Johnson C. Some australian data on the short version of the attitudes to women scale (AWS). Australian Psychologist. 1975; 10(3):319-24. [DOI:10.1080/00050067508256472]

[25] Trekels J, Eggermont S. Beauty is good: The appearance culture, the internalization of appearance ideals, and dysfunctional appearance beliefs among tweens. Human Communication Research. 2017; 43(2):173-92. [DOI:10.1111/hcre.12100]

[26] Spangler D, Stice E. Validation of the beliefs about appearance scale. Cognitive Therapy and Research. 2001; 25(6):813-27. [DOI:10.1023/A:1012931709434]

[27] Pascoal PM, Alvarez MJ, Roberto MS. Validation and invariance across gender of the beliefs about appearance scale (BAAS) in a community sample of heterosexual adults in a committed relationship. Trends in Psychiatry and Psychotherapy. 2018; 40(2):126-35. [DOI:10.1590/2237-6089-2017-0045] [PMID]

[28] Tekin EG, Dogan T. The internal consistency reliability and construct validity of the Turkish translation of the beliefs about appearance scale. International Journal of Human Science. 2014; 11(1):1178-87. [DOI:10.14687/ijhs.v11i1.2910]

[29] Silva E, Pascoal PM, Nobre P. Beliefs about appearance, cognitive distraction and sexual functioning in men and women: A mediation model based on cognitive theory. The Journal of Sexual Medicine. 2016; 13(9):1387-94. [DOI:10.1016/j.jsxm.2016.06.005] [PMID]

[30] Talepasand S, Bigdeli I, Fallah Z. [Psychometric properties of an Iranian version of the beliefs about appearance scale (Persian)]. Koomesh. 2011; 13(1):14-22. [Link]

[31] Cash TF. The multidimensional body-self relations questionnaire users' manual. Norfolk: Old Dominion University; 2000. [Link]

[32] Vossbeck-Elsebusch AN, Waldorf M, Legenbauer T, Bauer A, Cordes M, Vocks S. German version of the multidimensional body-self relations questionnaire - appearance scales (MBSRQ-AS): Confirmatory factor analysis and validation. Body Image. 2014; 11(3):191-200. [DOI:10.1016/j.bodyim.2014.02.002] [PMID]

[33] Swami V, Todd J, Mohd Khatib NA, Toh EKL, Zahari HS, Barron D. Dimensional structure, psychometric properties, and sex invariance of a Bahasa Malaysia (Malay) translation of the multidimensional body-self relations questionnaire-appearance scales (MBSRQ-AS) in Malaysian Malay adults. Body Image. 2019; 28:81-92. [DOI:10.1016/j.bodyim.2018.12.007] [PMID]

[34] Laus MF, Vales LDMF, Oliveira NG, Braga Costa TM, Almeida SS. Brazilian version of the multidimensional body-self relations questionnaire-appearance scales (MBSRQ-AS): Translation and psychometric properties in adults. Eating and Weight Disorders. 2020; 25(5):1253-66. [DOI:10.1007/s40519-019-00758-w] [PMID]

[35] Hasanpoor-Azghady SB, Amiri-Farahani L, Arbabi-Moghadam R. Confirmatory factor analysis and psychometric properties of the Persian version of the multidimensional body-self relations questionnaire-appearance scales (MBSRQ-AS) in women with polycystic ovary syndrome. Eating and Weight Disorders. 2022; 27(2):639-49. [DOI:10.1007/s40519-021-01203-7] [PMID]

[36] Argyrides M, Kkeli N. Multidimensional body-self relations questionnaire-appearance scales: Psychometric properties of the Greek version. Psychological Reports. 2013; 113(3):885-97. [DOI:10.2466/03.07.PR0.113x29z6] [PMID]

[37] Roncero M, Perpiñá C, Marco JH, Sánchez-Reales S. Confirmatory factor analysis and psychometric properties of the Spanish version of the multidimensional body-self relations questionnaire-appearance scales. Body Image. 2015; 14:47-53. [DOI:10.1016/j.bodyim.2015.03.005] [PMID]

[38] Cash TF, Santos MT, Williams EF. Coping with body-image threats and challenges: Validation of the Body Image Coping Strategies Inventory.Journal of Psychosomatic Research. 2005; 58(2):190-9. [DOI:10.1016/j.jpsychores.2004.07.008] [PMID]

[39] Doğan T, Sapmaz F. Adaptation of the body image coping strategies inventory to Turkish: A validity and reliability study. Anadolu Psikiyatri Dergisi. 2011; 12(2):121-9. [Link]

[40] Mancuso SG. Body image inflexibility mediates the relationship between body image evaluation and maladaptive body image coping strategies. Body Image. 2016; 16:28-31. [DOI:10.1016/j.bodyim.2015.10.003] [PMID]

[41] Arabaci LB, Buyukbayram Arslan A, Dagli DA, Tas G. The relationship between university students' childhood traumas and their body image coping strategies as well as eating attitudes. Archives of Psychiatric Nursing. 2021; 35(1):66-72. [DOI:10.1016/j.apnu.2020.09.017] [PMID]

[42] Dhurup M, Nolan VT. Body image coping strategies among university students and variations in terms of gender in a developing country. The Anthropologist. 2014; 18(1):217-25. [DOI:10.1080/09720073.2014.11891539]

[43] Izu SC, Kosugi EM, Lopes AS, Brandão KV, Sousa LB, Suguri VM, et al. Validation of the rhinoplasty outcomes evaluation (ROE) questionnaire adapted to Brazilian Portuguese. Quality of Life Research. 2014; 23(3):953-8. [DOI:10.1007/s11136-013-0539-x] [PMID]

[44] Bulut OC, Plinkert PK, Wallner F, Baumann I. Quality of life in functional rhinoplasty: Rhinoplasty outcomes evaluation German version (ROE-D). European Archives of Oto-Rhino-Laryngology. 2016; 273(9):2569-73. [DOI:10.1007/s00405-016-3920-x] [PMID]

[45] Khan N, Rashid M, Khan I, Ur Rehman Sarwar S, Ur Rashid H, Khurshid M, et al. Satisfaction in patients after rhinoplasty using the rhinoplasty outcome evaluation questionnaire. Cureus. 2019; 11(7):e5283. [DOI:10.7759/cureus.5283] [PMID]

[46] Stergiou G, Schweigler A, Finocchi V, Fortuny CG, Saban Y, Tremp M. Quality of life (QoL) and outcome after preservation rhinoplasty (PR) using the rhinoplasty outcome evaluation (ROE) questionnaire-a prospective observational single-centre study. Aesthetic Plastic Surgery. 2022; 46(4):1773-9. [DOI:10.1007/s00266-022-02773-2] [PMID]

[47] Henderson-King D, Henderson-King E. Acceptance of cosmetic surgery: Scale development and validation. Body Image. 2005; 2(2):137-49. [DOI:10.1016/j.bodyim.2005.03.003] [PMID]

[48] Wu Y, Alleva JM, Mulkens S. Factor analysis and psychometric properties of the chinese translation of the acceptance of cosmetic surgery scale. Body Image. 2020; 33:244-56. [DOI:10.1016/j.bodyim.2020.03.009] [PMID]

[49] Jovic M, Sforza M, Jovanovic M, Jovic M. The acceptance of cosmetic surgery scale: Confirmatory factor analyses and validation among serbian adults. Current Psychology. 2017; 36(4):707-18. [DOI:10.1007/s12144-016-9458-7] [PMID] [PMCID]

[50] Swami V, Hwang CS, Jung J. Factor structure and correlates of the acceptance of cosmetic surgery scale among South Korean university students. Aesthetic Surgery Journal. 2012; 32(2):220-9. [DOI:10.1177/1090820X11431577] [PMID]

[51] Swami V. Translation and validation of the malay acceptance of cosmetic surgery scale. Body Image. 2010; 7(4):372-5. [DOI:10.1016/j.bodyim.2010.07.005] [PMID]

[52] Stefanile C, Nerini A, Matera C. The factor structure and psychometric properties of the Italian version of the acceptance of cosmetic surgery scale. Body Image. 2014; 11(4):370-9. [DOI:10.1016/j.bodyim.2014.06.005] [PMID]

[53] Swami V, Campana AN, Ferreira L, Barrett S, Harris AS, Tavares Mda C. The acceptance of cosmetic surgery scale: Initial examination of its factor structure and correlates among Brazilian adults. Body Image. 2011; 8(2):179-85. [DOI:10.1016/j.bodyim.2011.01.001] [PMID]

[54] MacCallum RC, Browne MW, Sugawara HM. Power analysis and determination of sample size for covariance structure modeling. Psychological Methods. 1996; 1(2):130-49. [DOI:10.1037/1082-989X.1.2.130]

[55] Kawamura KY. Body image among Asian Americans. Encyclopedia of body image and human appearance. 2012; 1:95-102. [DOI:10.1016/B978-0-12-384925-0.00039-0]

[56] Murnen SK, Don BP. Body image and gender roles. Encyclopedia of Body Image and Human Appearance. 2012; 1:128-34. [DOI:10.1016/B978-0-12-384925-0.00019-5]

[57] Jackson LA, Sullivan LA, Rostker R. Gender, gender role, and body image. Sex Roles. 1988; 19(7):429-43. [DOI:10.1007/BF00289717]

[58] Carraça EV, Markland D, Silva MN, Coutinho SR, Vieira PN, Minderico CS, et al. Dysfunctional body investment versus body dissatisfaction: Relations with well-being and controlled motivations for obesity treatment. Motivation and Emotion. 2011; 35(4):423-34. [DOI:10.1007/s11031-011-9230-0]

[59] Choma BL, Shove C, Busseri MA, Sadava SW, Hosker A. Assessing the role of body image coping strategies as mediators or moderators of the links between self-objectification, body shame, and well-being. Sex Roles. 2009; 61(9-10):699-713. [DOI:10.1007/s11199-009-9666-9]

[60] Clark L, Tiggemann M. Sociocultural influences and body image in 9 to 12-year-old girls: The role of appearance schemas. Journal of clinical child and Adolescent Psychology. 2007; 36(1):76-86. [DOI:10.1207/s15374424jccp3601_8]

[61] Liechty T, Freeman PA, Zabriskie RB. Body image and beliefs about appearance: Constraints on the leisure of college-age and middle-age women. Leisure Sciences. 2006; 28(4):311-30. [DOI:10.1080/01490400600745845]

[62] Ip K, Jarry JL. Investment in body image for self-definition results in greater vulnerability to the thin media than does investment in appearance management. Body Image. 2008; 5(1):59-69. [DOI:10.1016/j.bodyim.2007.08.002] [PMID]

[63] Lin L, Reid K. The relationship between media exposure and antifat attitudes: The role of dysfunctional appearance beliefs. Body Image. 2009; 6(1):52-5. [DOI:10.1016/j.bodyim.2008.09.001] [PMID]

[64] Sherry SB, Vriend JL, Hewitt PL, Sherry DL, Flett GL, Wardrop AA. Perfectionism dimensions, appearance schemas, and body image disturbance in community members and university students. Body Image. 2009; 6(2):83-9. [DOI:10.1016/j.bodyim.2008.12.002] [PMID]

[65] Clark L, Tiggemann M. Sociocultural and individual psychological predictors of body image in young girls: A prospective study. Developmental Psychology. 2008; 44(4):1124-34. [DOI:10.1037/0012-1649.44.4.1124] [PMID]

[66] Trekels J, Eggermont S. Beauty is good: The appearance culture, the internalization of appearance ideals, and dysfunctional appearance beliefs among tweens. Human Communication Research. 2017; 43(2):173-192. [DOI:10.1111/hcre.12100]

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