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Acceptance of Young Saudi Women to Undergo Cosmetic Surgery and Factors Influencing Their Decision

Ali M. Alkhathami, MBBS*
Turki S. Alhassan, MD†
Khalid A. Fayi, MBBS‡
Razan A. Albrahim§
Khalid H. Al-jabr¶
Abdullrahman A. Alghamdi¶

Background: The cosmetic procedure is a treatment modality for improving the appearance of a person, and it may involve either surgical or nonsurgical interventions. The number of women who undergo cosmetic surgery in Saudi Arabia has increased dramatically. In fact, the reasons for the increase in the number of cosmetic procedures include the growth impact of social media and the pursuit of perfection. The study aimed to determine the level of acceptance of cosmetic surgery among young Saudi women, and the factors influencing their decisions.

Methods: This cross-sectional study was conducted among literate Saudi women during March 2023 to April 2023. A self-reported questionnaire was used, which investigated the demographics, acceptance, and information about cosmetic surgery and social media.

Results: A total of 1685 female participants were included in this study: 62.6% were students, 73.6% were single, and 65.8% were aged 18–23 years. The levels of acceptance were high among 38.9% of the participants, and the level of acceptance was significantly affected by age ($P = 0.0001$), social status ($P = 0.0001$), work ($P = 0.0001$), education ($P = 0.001$), and income ($P = 0.001$). Up to 86.1% of the participants had not undergone cosmetic surgery, and the reasons for undergoing surgery commonly included dissatisfaction with appearance and social media.

Conclusions: The acceptance of cosmetic surgery in this study was low, and it was affected by several demographics of the participants. For instance, social media played a crucial role in driving women to undergo such procedures. *(Plast Reconstr Surg Glob Open 2023; 11:e5497; doi: 10.1097/GOX.0000000000005497; Published online 22 December 2023.)*

INTRODUCTION

Cosmetic procedures have been defined as the treatment intended to improve the appearance of a person.[1] Cosmetic procedures focus on enhancing one's appearance, and may involve surgical procedures such as rhinoplasty, or nonsurgical interventions such as botulinum toxin injection.[2]

There is an increase in the rates of cosmetic surgery; the increase in cosmetic procedures since 1997 was estimated to be 446%.[3] Recently, the number of cosmetic procedures has increased, both surgical and nonsurgical.[4] For instance, according to the International Society of Aesthetic Plastic Surgeons, Saudi Arabia ranks 22nd among the top 25 nations with the highest rates of cosmetic procedures globally.[5] Also, more than one-half of Saudi women (55.4%) underwent a cosmetic procedure.[4] The number of women who undergo cosmetic surgery in Saudi Arabia has increased dramatically over the past few years. This indicates that cosmetic surgery is fast becoming a trend that is related to beauty ideas, especially for women.[6]

The trends in performing cosmetic surgery are changing, and the age of women undergoing such procedures is decreasing.[6] For instance, it was supposed earlier that the group seeking cosmetic surgery comprised older

*From the *Division of Plastic Surgery, Department of Surgery, College of Medicine, Taif University, Taif, Saudi Arabia; †Division of Plastic Surgery, Department of Surgery, King Abdulaziz Medical City, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia; ‡Division of Plastic Surgery, Department of Surgery, King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia; §College of Medicine, Princess Noura Bin Abdulrahman University, Riyadh, Saudi Arabia; and ¶College of Medicine, Prince Sattam Bin Abdulaziz University, Al-Kharj, KSA.*

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women attempting to turn back time. Lately, however, the typical patients are significantly younger; for example, it was found that 45% of patients undergoing cosmetic surgery were aged 35–50 years, whereas 27% were under 35 years.[7,8] In 2011, statistics revealed that women younger than 18 years underwent a total of 230,000 cosmetic procedures.[9] The reasons for such increase in the number of cosmetic procedures include dissatisfaction with body image, the growing impact of social media, and the pursuit of bodily perfection.[10] Mass media has been recognized to significantly influence hypothetical decisions and personal appearance.[11] Also, the media plays a crucial role in increasing the popularity of cosmetic surgery, for instance, by advertising a beauty ideal leaner than the average female body shape. Thus, the media indirectly orient individuals toward the available surgical means of meeting unrealistic beauty standards.[12] This study was conducted to assess the level of acceptance of cosmetic surgery among young Saudi women as well as the factors influencing their decisions.

SUBJECTS AND METHODS

This cross-sectional study was conducted on all literate Saudi women. Non-Saudi women were excluded from the study. It was conducted using a self-reported online questionnaire. The study was conducted during the period from March 2023 to April 2023. Informed consent was obtained from each participant, and ethical approval was obtained from King Abdullah International Medical Research Center before commencing the study.

ASSESSMENT TOOL

The questionnaire investigated three aspects, including demographics, acceptance, and factors affecting the choice of the participants. The questionnaire was translated into the Arabic language, and its internal consistency and reliability were proven. Acceptance was investigated through the Acceptance of Cosmetic Surgery Scale created in the United States in 2004, which has high consistency across all trials for the acceptance portion. The scale contains 15 items organized into three subscales, each including five items. The level of acceptance was assessed based on a seven-point scale, from 1 = strongly disagree to 7 = strongly agree. The first subscale is the intrapersonal factor, which analyzes the emotional component and the personal advantages anticipated from cosmetic surgery. The second subscale is the social element, which investigates if participants would contemplate cosmetic surgery to strengthen their connections to others and their careers. The third subscale is the consideration factor, which takes into account whether cosmetic surgery may be a possibility in the event of a particular scenario.

The third aspect of the questionnaire included an evaluation of factors influencing the choice of the participants, including crowd mentality, family pressure, social media effect, and awareness of the side effects of aesthetic surgery. This section also assessed other miscellaneous questions. Participants were asked to rate their own appearance on a scale of one to five, where one referred to extremely unattractive and five referred to incredibly attractive, as well as their body parts.

Takeaways

Question: What's the level of acceptance of cosmetic surgery among young Saudi women, and factors influencing their decisions to undergo cosmetic surgery?

Findings: The acceptance of cosmetic surgery in this study was low, and it was affected by several demographics of the participants.

Meaning: Social media played a crucial role in driving women to undergo such cosmetic procedures.

STATISTICAL ANALYSIS

Analysis of the data obtained from the questionnaire was performed using the SPSS software 22. The mean (±SD) was calculated for numerical data, whereas number (and proportions) represented the categorical data. The chi-square test was used to evaluate the correlation between acceptance level and other variables, and a *P* value less than or equal to 0.05 was considered statistically significant.

RESULTS

A total of 1685 women were enrolled in this study; more than one-half (1108, 65.8%) were between 18 and 23 years, 1055 (62.6%) were students, and 1111 (65.9%) reported a monthly income of less than US $1300. Of these women, 1240 (73.6%) were single, and 1198 (71.1%) had bachelor's degrees. A total of 892 (52.9%) participants reported that their source of funding were their parents (Table 1).

The acceptance level among the participants was investigated using 15 questions shown in Supplemental Digital Content 1. (**See table, Supplemental Digital Content 1**, description of questions used to assess the acceptance level, **http://links.lww.com/PRSGO/C970**.)

The acceptance level was high among a few proportions of the participants, 655 (38.9%), whereas more than one-half, 1030 (61.1%), reported a low level of acceptance (Fig. 1).

Table 2 shows the factors that significantly affected the acceptance level; such factors included age ($P = 0.0001$), social status ($P = 0.0001$), educational level ($P = 0.001$), work ($P = 0.0001$), monthly income ($P = 0.001$), and the source of income ($P = 0.0001$).

The correlation between acceptance level and different variables is shown in Table 3. There was a significant difference in the acceptance level regarding those who had previously undergone cosmetic surgery and those who had not ($P = 0.0001$). Furthermore, the acceptance level was significantly varied by knowing someone who had undergone a cosmetic surgery ($P = 0.0001$) as well as by awareness of the complications of cosmetic surgery ($P = 0.0001$).

Five questions were asked the participants about their looks and cosmetic surgery (Table 4). The largest proportion of the participants (562, 33.4%) were extremely happy about their looks, followed by the happy participants (365, 21.7%), and then those who reported being somewhat

Table 1. Description of Basic Characteristics

Variables	Description (n = 1685)
Age	
<18	50 (3%)
18–23	1108 (65.8%)
24–30	273 (16.2%)
31–40	127 (7.5%)
>40	127 (7.5%)
Social status	
Single	1240 (73.6%)
Married	374 (22.2%)
Widow	30 (1.8%)
Divorced	41 (2.4%)
Education	
Elementary school	9 (0.5%)
Intermediate school	33 (2%)
High school	360 (21.4%)
Bachelor's degree	1198 (71.1%)
Postgraduate education	85 (5%)
Work	
Student	1055 (62.6%)
Employed	340 (20.2%)
Not working	290 (17.2%)
Monthly income	
<1300 USD	1111 (65.9%)
1300–2600 USD	262 (15.5%)
2600–4000 USD	168 (10%)
>4000 USD	144 (8.5%)
Source of income	
Work	601 (35.7%)
Parents	892 (52.9%)
Husband	254 (15.1%)
Others	431 (25.6%)

happy (358, 21.2%). The majority of participants (1450, 86.1%) had not undergone cosmetic surgery, and most of the participants (1188, 70.5%) were aware of the complications following cosmetic surgery. More than one-half (1171, 69.5%) of the participants reported that they knew individuals who had undergone cosmetic surgery. The major factors reported to increase the susceptibility of the participants to undergoing cosmetic surgery included dissatisfaction with appearance (703, 41.7%), followed by social media (616, 36.6%), and pressure from family or friends (442, 26.2%), whereas the remaining factors represented less than one-quarter of the causes.

The impact of social media on the behavior of the participants is illustrated in Table 5. Up to 499 (29.6%) participants reported always using applications to take selfies, whereas 467 (27.7%) reported often using such applications to improve their selfies. The participants majorly spent a significant amount of time per day on social networks. For instance, 768 (45.6%) participants reported 5 hours or more per day, and 678 (40.2%) reported 2–4 hours per day. Less than one-half (752, 44.6%) of the participants preferred not to undergo plastic surgery, whereas a majority reported that plastic surgery was reported for body sculpting (431, 25.6%), followed by abdominoplasty (396, 23.5%), and nose (396, 23.5%). More than 50% of the respondents (1168, 69.3%) reported that they would not feel embarrassed if they underwent plastic surgery and someone found out about it.

DISCUSSION

This study was carried out to assess the acceptance of cosmetic surgery among young Saudi women. The study focused on women because they constitute the majority of individuals seeking cosmetic surgery. For instance, a previous study in Saudi Arabia showed that the large majority of patients seeking cosmetic surgical procedures in three private cosmetic surgery centers were women (90.5%), and that typical Saudi cosmetic surgery seekers were middle-aged individuals.[6]

In the current study, the acceptance level of cosmetic surgery was found to be high among only 38.9% of the participants, whereas 61.1% reported a low acceptance level. Furthermore, a small proportion (13.9%) of the participants reported undergoing cosmetic surgery. However, a contrast was found in a previous study in Saudi Arabia.

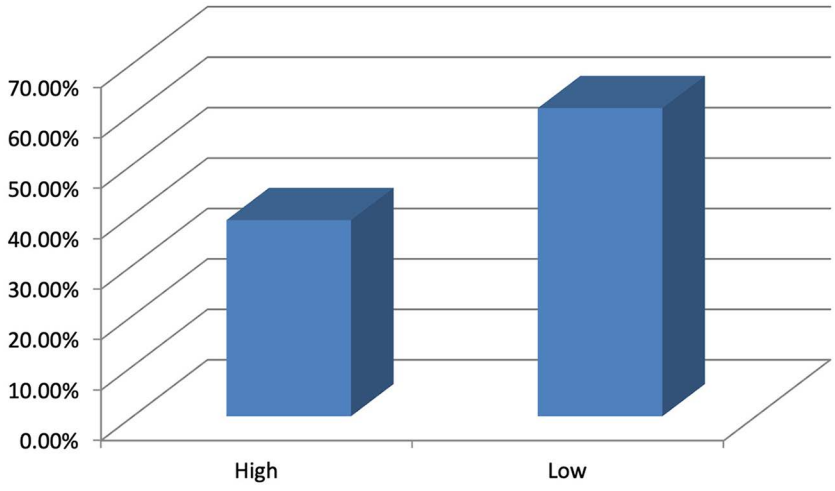

Fig. 1. The acceptance level among participants.

Table 2. Factors Affecting Acceptance Level

	Acceptance Level		
Variables	High	Low	*P**
Age			
<18	12 (1.8)	38 (3.7)	
18–23	381 (58.2)	727 (70.6)	
24–30	140 (21.4)	133 (12.9)	**0.000**
31–40	57 (8.7)	70 (6.8)	
>40	65 (9.9)	62 (6)	
Social status			
Single	451 (68.9)	789 (76.6)	
Married	159 (24.3)	215 (20.9)	**0.000**
Widow	19 (2.9)	11 (1.1)	
Divorced	26 (4)	15 (1.5)	
Education			
Elementary school	4 (0.6)	5 (0.5)	
Intermediate school	14 (2.1)	19 (1.8)	
High school	173 (26.4)	187 (18.2)	**0.001**
Bachelor's degree	426 (65)	772 (75)	
Postgraduate studies	38 (5.8)	47 (4.6)	
Work			
Student	353 (53.9)	702 (68.2)	
Employed	188 (28.7)	152 (14.8)	**0.000**
Not working	114 (17.4)	176 (17.1)	
Monthly income			
< 1300 USD	402 (61.4)	709 (68.8)	
1300–2600 USD	130 (19.8)	132 (12.8)	**0.001**
2600–4000 USD	71 (10.8)	97 (9.4)	
> 4000 USD	52 (7.9)	92 (8.9)	
Source of income			
Work	317 (48.4)	284 (27.6)	**0.000**
Parents	280 (42.7)	612 (59.4)	**0.000**
Husband	107 (16.3)	147 (14.3)	0.248
Others	105 (16)	326 (31.7)	**0.000**

*Chi-square test.

Table 3. The Correlation between Level of Acceptance and Other Variables

	Acceptance Level		
Variables	**High**	**Low**	***P***
Have you ever had a cosmetic surgery?			
Yes	146 (22.3)	89 (8.6)	**0.000**
No	509 (77.7)	941 (91.4)	
Do you know someone who has had a cosmetic surgery?			
Yes	506 (77.3)	665 (64.6)	**0.000**
No	149 (22.7)	365 (35.4)	
Are you aware of any complications secondary to cosmetic surgery?			
Yes	408 (62.3)	780 (75.7)	**0.000**
No	247 (37.7)	250 (24.3)	

Table 4. Data of Cosmetic Surgery Questions

Questions and Answers	Description (n = 1685)
Your views on your look	
Extremely unhappy	66 (3.9%)
Unhappy	40 (2.4%)
Somewhat unhappy	60 (3.6%)
Neutral	234 (13.9%)
Somewhat happy	358 (21.2%)
Happy	365 (21.7%)
Extremely happy	562 (33.4%)
Have you ever undergone cosmetic surgery?	
Yes	235 (13.9%)
No	1450 (86.1%)
Do you know someone who has undergone cosmetic surgery?	
Yes	1171 (69.5%)
No	514 (30.5%)
Are you aware of any complications following cosmetic surgery?	
Yes	1188 (70.5%)
No	497 (29.5%)
In your opinion, which of the following increases your susceptibility to undergo cosmetic surgery?	
Social media	616 (36.6%)
Movies/TV shows	195 (11.6%)
Celebrity advice	189 (11.2%)
Have a financial surplus	344 (20.4%)
Pressure of family or friends	442 (26.2%)
Dissatisfaction with the appearance	703 (41.7%)
Previous experience with cosmetic surgery	241 (14.3%)
None	419 (24.9%)

A cross-sectional study that enrolled 500 women from Riyadh found that more than one-half of women underwent cosmetic procedures (55.4%).[4]

In a study in Saudi Arabia that enrolled both genders, with a female dominancy of 82.1%, a lower acceptance level for cosmetic surgery was found based on the scale for acceptance of cosmetic surgery. Additionally, the increased acceptance of participants was associated with older age, female gender, history of cosmetic surgery, education, and being married.[13] These findings agree with those from the present study, as the acceptance rate was also found to be commonly low among our participants. Furthermore, age, marital status, and education were the determinants of the level of acceptance. However, contrary to the finding from the previous study, we found that high acceptance was more common among the younger and single participants. Additionally, in the present study, a significant proportion (77.7%) of participants who reported a high acceptance level had not undergone cosmetic surgery before.

Another study in Saudi Arabia that included men and women demonstrated that 47.6% of patients were willing to undergo minor cosmetic surgery; however, the large majority had not undergone a previous surgery (91.5%).[11] Similarly, a high proportion of participants (86.1%) in the present reported that they did not undergo cosmetic surgery.

Acceptance of cosmetic procedures among Saudi women was reported to be more common among single women; self-satisfaction was an important determinant that influenced their decision to undergo cosmetic procedures, and surprisingly, social reasons were the least.[4] Similarly, in this study, a higher proportion of single women reported high acceptance levels compared with the proportions of married, widowed, and divorced women. Although the role of self-satisfaction in undergoing or accepting cosmetic surgery was not investigated in

Table 5. Social Media Effect

Questions and Answers	Description (n = 1685)
Do you use artificial intelligence applications (Snapchat, Instagram, TikTok, etc.) to take your selfies?	
Never	141 (8.4)
Rarely	254 (15.1)
Often	411 (24.4)
Usually	380 (22.6)
Always	499 (29.6)
Do you use artificial intelligence applications (Snapchat, Instagram, TikTok, etc.) to improve your selfies?	
Never	289 (17.2)
Rarely	351 (20.8)
Often	467 (27.7)
Usually	368 (21.8)
Always	210 (12.5)
How much time do you spend on social networking sites per day?	
An hour or less	239 (14.2)
Two to four hours	678 (40.2)
Five hours or more	768 (45.6)
If you want to perform a cosmetic surgery/ procedure on any part of your body, which part would you like to improve its appearance?	
Nonsurgical cosmetic procedures	752 (44.6)
Body sculpting	431 (25.6)
Abdominoplasty	396 (23.5)
Breasts	252 (15)
Ears	69 (4.1)
Eyes & lids	131 (7.8)
Lips	189 (11.2)
Nose	396 (23.5)
Skin	135 (8)
Other	252 (15)
Would you feel embarrassed if you had a cosmetic surgery/procedure and someone found out about it?	
Family	215 (12.8)
Friends	157 (9.3)
Strangers	145 (8.6)
I would not feel that way	1168 (69.3)

the present study, more than 50% of the participants were happy with their looks, ranging from being somewhat happy to being extremely happy.

In a study conducted in Saudi Arabia among 3007 women, the acceptance of cosmetic intervention was assessed; the prevalence of cosmetic interventions was 10%. High acceptance levels toward cosmetic interventions were observed among older, married, employed, and postgraduate respondents as well as among those with high economic status ($P < 0.001$). Meanwhile, knowing the adverse events of cosmetic interventions was associated with a low level of acceptance with a P value less than 0.001.[14] The prevalence of cosmetic surgery in our study was slightly higher (13.9%) compared with that in the previous study. Most of our participants (70.5%) were aware of the complications of cosmetic surgery. Furthermore, those who were aware of the complications of cosmetic surgery significantly tended to have low acceptance level. A low level of acceptance was associated with a bachelor's level of education, being a student, having a low monthly income, and having parents as the source of income.

The major reasons for cosmetic surgery among Saudi women, as reported in a previous study, included medical reasons (46.8%), followed by beauty (26.3%), whereas the remaining factors were less common and included increased self-esteem (12.9%) and reconstructive reasons (11.1%).[14] In the current study, the major derivative for increasing the probability of undergoing cosmetic surgery was dissatisfaction with appearance, followed by social media; the medical reasons were not assessed. This variation in findings between this study and the previous study may be due to the variation of the investigated factors.

The factors affecting the acceptance of cosmetic surgery were assessed among men and women in their 20s and 30s, and the women were slightly dominant in the study (52.8%). Acceptance of cosmetic surgery was significantly higher among employed subjects, those with lower appearance satisfaction, and those with previous experience with cosmetic surgery.[15] In our study, the largest proportion of participants that displayed high acceptance level were those who did not undergo cosmetic surgery (77.7%). Work status was found to be a determinant of the level of acceptance; however, employed women ranked second among those who reported a high acceptance of cosmetic surgery.

Only 2.2% of Saudi female students in a previous study reported undergoing cosmetic surgery. Furthermore, almost 50% of students who underwent cosmetic surgery agreed that social media affected their decisions.[16] More participants in our study underwent cosmetic surgery (13.9%). Additionally, social media ranked second as a derivative for undergoing cosmetic surgery. This demonstrates the impact of social media on the decision of participants to undergo cosmetic surgery, which can be explained by the fact that 45.6% of the participants in this study spent 5 or more hours daily on social networks.

Social media has been gaining global popularity as a method of advertisement for cosmetic therapy.[13] In 2018, it was reported by the annual American Academy of Facial Plastic and Reconstructive Surgery Survey that 55% of patients were willing to undergo cosmetic procedures to modulate their selfie looks.[17] In this study, 29.6% of the participants reported that they always used applications to take selfies, and 27.7% often use such applications to enhance their selfies.

Spending more time on social media and engaging with more appearance-related content has an impact on body image concerns.[18] The present study supports this statement because social media ranked as the second determinant of cosmetic surgery. Moreover, a significant proportion of participants in the present study spent a significant amount of time on social networks. In fact, increasing exposure to media, poor life satisfaction, and poor self-esteem increases the probability of undergoing a cosmetic surgery.[19]

A total of 653 Saudi residents were enrolled in one study, and it was found that women represented the majority of the sample (74.9%). Up to 98.3% reported using social media, and 93.4% reported taking selfies. Of those who reported taking selfies, 37.8% wanted to undergo a cosmetic procedure because of selfies, and the majority of them were women (85%). Additionally, more than one-half of the participants using filters were interested in undergoing cosmetic surgery.[20]

The influence of religion and culture on cosmetic surgery acceptance in Saudi Arabia is a significant aspect to consider. Islam is the dominant religion in Saudi Arabia, and it strongly influences the societal views on cosmetic surgery. Islam may view cosmetic surgery as permissible if it aims to restore or correct a physical defect or injury. However, there may be differing opinions on elective cosmetic procedures. Saudi Arabian culture is deeply rooted in traditions, customs, and societal norms. Cultural values such as modesty, familial influence, and social judgment can shape the attitudes towards undergoing cosmetic procedures.

LIMITATIONS

The limitations of our study primarily revolve around the areas we did not investigate, particularly the reasons behind the low acceptance levels of cosmetic surgery in the younger female age group, as well as the cultural and religious factors influencing these attitudes. In addition there is potential for selection bias and reliance on self-reported data.

CONCLUSIONS

The prevalence of undergoing cosmetic surgery in this study was low, as well as the acceptance rate. Acceptance of cosmetic surgery was affected by several demographics of the participants, including age, social status, education, work, and monthly income. Social media was found to play a crucial role in driving women to undergo such procedures, as many women spend a significant amount of time on social networks.

Khalid A. Fayi, MBBS
Division of Plastic Surgery, Department of Surgery
King Faisal Specialist Hospital & Research Center Riyadh,
Saudi Arabia
E-mail: khdfaya@gmail.com

DISCLOSURE

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- *Ghada L. Al-lazzam*

College of Medicine, Prince Sattam Bin Abdulaziz University, Al-Kharj 11942, KSA

- *Deem L. Al-ajmi*

College of Medicine, Prince Sattam Bin Abdulaziz University, Al-Kharj 11942, KSA

- *Dala F. Al-dossary*

College of Medicine, Prince Sattam Bin Abdulaziz University, Al-Kharj 11942, KSA

- *Lujain M. Al-dosarri*

College of Medicine, Prince Sattam Bin Abdulaziz University, Al-Kharj 11942, KSA

- *Faizah A. Al-anazi*

College of Medicine, Prince Sattam Bin Abdulaziz University, Al-Kharj 11942, KSA

- *Gyodh M. Al-otaibi*

College of Medicine, Prince Sattam Bin Abdulaziz University, Al-Kharj 11942, KSA

- *Dana A. Al-dossary*

College of Medicine, Imam Abdulrahman Bin Faisal University, Al-Dammam 34212, KSA

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