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Research

The Health Impacts, Prevalence, and Acceptance Level of Cosmetics Interventions Among Females in Saudi Arabia

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Abstract

Background: With the rising global desire for beauty, cosmetic interventions have increased. Saudi Arabia ranked 29 among the top 30 fastest growing countries for cosmetic procedures.

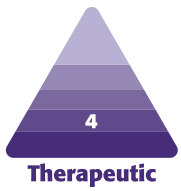
Objectives: This study aims to investigate the prevalence, acceptance level, and health impacts of cosmetic interventions among females in Saudi Arabia.

Methods: This cross-sectional study was conducted from December 2022 to January 2023 among females living in Saudi Arabia. Participants' acceptance of cosmetic interventions was assessed using an Arabic version of the validated Acceptance of Cosmetic Surgery Scale. The data were collected using a self-administered questionnaire.

Results: The study included 3007 females living in Saudi Arabia. About 58% of the participants were aged 18 to 25, and 72.9% were single. The prevalence of cosmetic interventions among the participants was 10%. A higher prevalence was observed among participants over 25 years, married, high economic status, employed, postgraduate, and participants recognizing the necessity of cosmetic interventions ($P < .001$). High acceptance levels toward cosmetic interventions were observed among older, married, employed, and postgraduate respondents and those with high economic status ($P < .001$). Meanwhile, knowing the adverse events of cosmetic interventions was associated with a low level of acceptance with a P-value of <.001.

Conclusions: The present study demonstrated a surprising prevalence of cosmetic interventions among females in Saudi Arabia. However, below-average acceptance of these interventions among the same population was reported. This could be a result of the surrounding culture that does not support or encourage undergoing cosmetic interventions. Further studies are recommended to assess the prevalence of those interventions using objective tools, such as medical records.

Level of Evidence: 4



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Cosmetic procedures are interventions aimed at improving the physical appearance of all body parts through either elective surgical procedures or nonsurgical procedures.[1,2] Cosmetic nonsurgical procedures include multiple procedures, such as botulinum toxin and filler injections,

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chemical peels, vein removal, laser skin resurfacing, and hair removal. Cosmetic surgery is considered a branch of plastic surgery that aims to improve or correct body imperfections and alters the natural appearance. It could be conducted on all body areas with various surgical face-lifts, breast augmentation, rhinoplasty, liposuction, and abdominoplasty.[3]

In recent years, the frequency of cosmetic procedures carried out globally has increased with the rising global desire for beauty.[4] Furthermore, nonsurgical cosmetic procedures recorded higher numbers compared to cosmetic interventions. The International Society of Aesthetic Plastic Surgery (ISAPS) indicated that the worldwide frequency of cosmetic procedures elevated from 20.1 to 25 million from 2015 to 2019.[5] In addition, in 2019, Saudi Arabia ranked 29th among the top 30 fastest growing countries for cosmetic procedures done worldwide.[6]

The elevated frequency of cosmetic interventions contributes to the elevated social acceptance of cosmetic surgery, high affordability, prolonged screen time, psychological characteristics such as body image and self-esteem, social networks, epidemiological factors, and technological advancement that facilitate the delivery of cosmetic surgery.[7,8] It was also indicated that the majority of individuals seeking cosmetic interventions are older females (aged 35-50 years) who try to turn back time.[9]

The current increase in cosmetic procedures is attributed to the significant role played by notable features. These features include individual characteristics, medical progression, and media influences. The mass media, including television, magazines, movies, and the internet, have a great impact on determining personal appearance, self-esteem, body image satisfaction, and cosmetic surgery decisions.[10,11]

Although several people may feel more attractive and self-satisfied after conducting cosmetic interventions, some studies indicate that they might negatively impact their quality of life and mental health.[12] Some people may experience psychological disorders after cosmetic interventions, such as depression and suicidality, and some may develop an addiction to cosmetic interventions.[13] Additionally, like all medical interventions, cosmetic surgery may lead to multiple potential undesirable consequences, including cardiac disorders, nerve damage, and infections.[5,14]

The high number of cosmetic procedures performed, especially among females, makes it essential to explore the prevalence of elective cosmetic interventions among Saudi females and provide information about the consequences of cosmetic treatments on people's relationships, self-esteem, trust, and acceptance by others.

Therefore, the current study aimed to evaluate the health impacts and prevalence of cosmetic interventions among females in Saudi Arabia. Additionally, this study aimed to assess the acceptance level of cosmetic surgery among participating females.

METHODS

Study Design

This observational cross-sectional study was conducted from December 2022 to January 2023 in Saudi Arabia.

Study Population

This study's target population was females living in Saudi Arabia. The Scientific Research Ethics Committee approved the study's proposal at Taif University.

Data Collection

Data were collected using a self-administered, validated questionnaire adapted from the Acceptance of Cosmetic Surgery Scale (ACSS; Henderson–King and Henderson–King 2005) and modified for the Arabic language to be understandable.[15] Furthermore, data on the demographic characteristics of participants, types, reasons, and positive and negative effects of cosmetic interventions have been collected. The questionnaire was distributed to the targeted participants as a Google form through social media platforms such as Facebook, Twitter, and Telegram for students and communities. Additionally, the questionnaire was distributed through a printed QR code in universities directly linked to the Google form.

ACSS is a 15-item scale used to measure the acceptance of cosmetic surgery for social and intrapersonal reasons (Henderson–King and Henderson–King, 2005). It consists of three subscales: (1) Intrapersonal, which investigates whether the person would undergo cosmetic surgery for self-oriented benefits; (2) Social, which explores whether the person would have cosmetic surgery for social reasons; and (3) Consider, which identifies whether the individual would consider undergoing surgery for general reasons. The participants' responses were reported on a 7-point scale (1 = strongly disagree, 7 = strongly agree); the higher scores indicate greater acceptance of cosmetic surgery.

Sample Size

The sample size was calculated using the Raosoft sample size calculator. Considering a 95% confidence interval, 50% population proportion, and a 5% margin of error, the minimum representative sample was 385 participants.

Statistical Analysis

The statistical analysis was performed using the computer program IBM Statistical Package for Social Science (SPSS) software version 26 (Armonk, NY). After data extraction, it was revised and coded. Categorical variables were

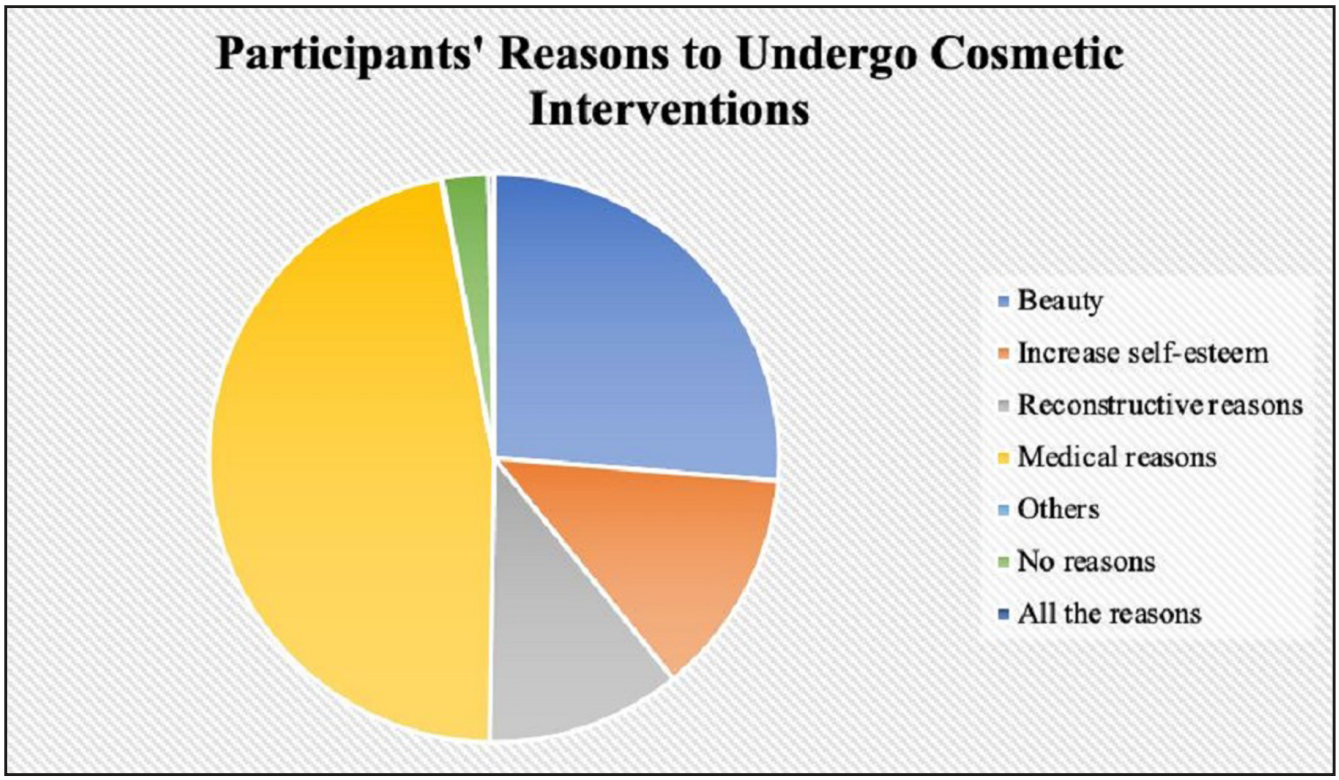

Figure 1. Main reasons for performing cosmetic interventions from paticipants' perspective.

presented in frequencies and valid percentages. Mean and standard deviations were calculated for the scores of 3 subscales of the ACSS and the overall scores. The Mann–Whitney test was conducted to explore the association between the independent variables and the scores of ACSS. In addition, the χ^2 test was used to identify the factors potentially affecting the prevalence of cosmetic interventions. *P*-values <.05 were considered statistically significant.

RESULTS

A total of 3007 females were enrolled in the study. Most participants were Saudi (92.2%) and from the Western region (43.9%). More than half of the individuals were aged from 18 to 25 years (58%) and were single (72.9%). Furthermore, 59.3% were students, and about 66.9% had a university degree. A family income of more than 20,000 Saudi Riyals (SR) was among 16.8% of respondents. Few participants (7.1%) knew the importance of cosmetic interventions; meanwhile, about 73.5% recognized the adverse events of cosmetic interventions. Therefore, most respondents (89.6%) did not undergo cosmetic surgery, whereas approximately 3.5% and 3.4% of participants did Filler and Botox interventions, respectively.

About 46.8% of respondents might undergo cosmetic interventions because of medical necessity. Beauty is an essential demand for females. Therefore, approximately 26.3% of respondents may resort to cosmetic surgery for beauty. Additionally, 11.1% of participants considered performing reconstructive surgery to treat deformations. Moreover, 12.9% of participating females believed cosmetic interventions might increase self-esteem (Figure 1). On the other hand, 35.8% of the respondents do not favor cosmetic interventions for religious reasons. About 28.4% of the participants believe cosmetic interventions are not necessary. Adverse events were reasons for refusing cosmetic interventions for about 21.5% of participating females. In addition, 12.8% of respondents did not consider cosmetic surgery because of its high costs. All data are illustrated in Table 1.

The health impacts of cosmetic interventions are illustrated in Table 2. For instance, about 31.6% of participants believed that cosmetic interventions might improve the body's appearance. Improving public health (26.2%) and increasing self-confidence (25.3%) were considered positive impacts of cosmetic surgery. In addition, cosmetic interventions might positively influence psychological well-being (8.1%) and quality of life (4.6%; Figure 2). On the other hand, 28.8% of respondents believed cosmetic interventions might be addictive. Moreover, few participants

Table 1. Demographic Characteristics of Participants ($n = 3007$)

Parameters	Category	Count ($n = 3007$)	%
Age	<18 years	310	10.3
	18-25 years	1745	58
	26-35 years	491	16.3
	36-45 years	312	10.4
	46-55 years	124	4.1
	>55 years	25	0.8
Nationality	Saudi	2773	92.2
	Non-Saudi	234	7.8
Region of Saudi Arabia	Northern	174	5.8
	Southern	333	11.1
	Eastern	389	12.9
	Western	1321	43.9
	Central	790	26.3
Marital status	Married	711	23.6
	Single	2192	72.9
	Divorced	90	3
	Widowed	14	0.5
Educational level	Illiterate	5	0.2
	Primary-preparatory-secondary school	617	20.5
	University degree	2012	66.9
	Diploma	185	6.2
	Master	164	5.5
	PhD	24	0.8
Employment status	Student	1783	59.3
	Unemployed	650	21.6
	Employed	574	19.1
Salary	≤5000 SR	824	27.4
	>5000-10,000 SR	829	27.6
	>10,000-20,000 SR	849	28.2
	>20,000	505	16.8
Knowing the importance of cosmetic surgery	Yes	214	7.1
	No	1484	49.4
	Neutral	1309	43.5
Knowing the side effects of cosmetic surgery	Yes	2209	73.5
	No	798	26.5
Type of cosmetic surgery ($n = 2982$)	Botox	101	3.4
	Filler	105	3.5
	Cosmetic breast surgery	12	0.4
	Liposuction	8	0.3
	Reconstructive surgery	24	0.8
	Rhinoplasty	34	1.1
	Others	25	0.8
	Did not undergo plastic surgery	2673	89.6
Reasons for cosmetic surgery ($n = 3004$)	For beauty	789	26.3
	Increase self-esteem	387	12.9
	For reconstructive reasons	334	11.1
	Medical reasons	1405	46.8
	Others	3	0.1
	All the reasons	8	0.3
	No reasons for cosmetic surgery	78	2.6
Reasons for not having cosmetic surgery ($n = 3002$)	Not necessary	852	28.4
	High cost	384	12.8
	Adverse events	644	21.5
	Religion reasons	1076	35.8
	All the reasons	46	1.5

believed cosmetic interventions led to undesirable events (20.1%) or adverse effects (16.3%). Additionally, about a quarter of participants assumed that cosmetic surgery resulted in asymmetry form (13.3%) or distortion (17.7%).

The present study showed a 10% prevalence of cosmetic interventions among females in Saudi Arabia. Figure 3 explains the acceptance of cosmetic intervention through interpersonal, considerate, and social statements. For interpersonal satisfaction, about 27.7% of respondents agreed to have a minor cosmetic intervention to feel good about their appearance. In addition, 48.2% believed cosmetic surgery might make people feel better about themselves. On the other hand, most respondents disagreed with cosmetic surgery if they were not satisfied with their looks (63.2%) or if it would make them happier about their looks (87.1%). Finally, half of the respondents (50%) thought cosmetic intervention might benefit people's self-image.

According to the social view, the majority refused to undergo cosmetic interventions if those interventions made

Table 2. Health Impacts of Cosmetic Interventions

Parameters	Category	Count	%
Positive effects of cosmetic surgery ($n = 3005$)	Improve body appearance	951	31.6
	Improve public health	788	26.2
	Increase self-confidence	760	25.3
	Psychological well-being	242	8.1
	QALY	139	4.6
	All the reasons	18	0.6
	No positive effects	107	3.6
Negative effects of cosmetic surgery ($n = 3007$)	Plastic surgery addiction	866	28.8
	Undesirable results	604	20.1
	Distortion	531	17.7
	Adverse effects	489	16.3
	Asymmetry form	401	13.3
	Others	26	0.9
	All the reasons	90	3.0

QALY, quality-adjusted life years.

them look younger (68.8%), more attractive (66.8%), or had a benefit for their career (64.8%). Additionally, 69.1% and 66.8% of the participants disagreed with undergoing cosmetic surgery, even if their partners thought that was a good idea or saw them as more attractive.

Whether the respondents consider cosmetic surgery or not in the future, 29% may perform it. In addition, about 31.1% of the participants may try to have a cosmetic intervention if it has no side effects. In contrast, 67.4% of respondents refused cosmetic intervention, even if it was free of charge. Additionally, 56.7% of participants did not think about cosmetic surgery, and 46.8% would never have any cosmetic intervention.

The prevalence of cosmetic surgery among participants was affected by several factors. Particularly, participants aged more than 25 years showed a significantly higher prevalence of cosmetic intervention ($P < .001$). In addition, the prevalence of cosmetic surgery was significantly higher among married participants and those from the northern region, with *P*-values <.001 and .005, respectively. High income (more than 10,000 SR) and postgraduate education were also associated with a significantly higher rate of cosmetic surgery, with *P*- values <.001 and <.001, respectively. Additionally, the employed participants showed a significantly higher prevalence of cosmetic surgery ($P < .001$). Finally, recognizing the importance of cosmetic interventions was a significant factor associated with the high rate of those interventions ($P < .001$). In contrast, nationality and knowing the adverse events of cosmetic surgery had no statistically significant impact on the prevalence of cosmetic interventions among Saudi females. All data are illustrated in Table 3.

In the present study, the mean (SD) interpersonal, social, and consider scores were 16.1 (7.15), 12.8 (8.32), and 15.6 (9.03), respectively. The mean overall score of cosmetic interventions was 44.5 (22.56) out of 105.

The interpersonal score demonstrated the acceptance of cosmetic intervention in the form of improved self-image and increased satisfaction with appearance. Older age (more than 25 years) significantly correlated with the high interpersonal acceptance of cosmetic surgery ($P < .001$). Furthermore, Saudi, married, and employed participants had a higher acceptance level of cosmetic surgery to improve their self-image with *P*-values <.001, .010, and <.001, respectively. Additionally, participants with a postgraduate degree and those who earned more than 10,000 SR reported higher acceptance for cosmetic surgery in the interpersonal satisfaction subscale than others ($P < .001$).

Recognizing the benefit of cosmetic intervention on improving self-image was statistically associated with a high acceptance of that intervention with a *P*-value of <.001. Additionally, participants who underwent a cosmetic intervention before had a higher acceptance of that intervention ($P < .001$). Meanwhile, the participants who did not know the side effects of cosmetic surgery had a significantly higher acceptance of the cosmetic interventions ($P = .005$). Finally, the region where the participants were located in Saudi Arabia did not significantly impact the acceptance level of cosmetic surgery.

Concerning the acceptance of cosmetic surgery based on social views, older age (more than 25 years), Saudi nationality, and postgraduate education were significant factors associated with a high level of acceptance ($P < .001$). Additionally, a high level of acceptance was observed among employed and married participants ($P < .001$). Moreover, the individuals who earned more than 10,000 SR accepted the cosmetic interventions with a *P*-value of .002. Knowing the benefits of cosmetic interventions in the community was statistically associated with the high level of acceptance of those interventions ($P < .001$). In addition, participants who underwent cosmetic intervention had an increased acceptance level for cosmetic surgery with a *P*-value of <.001. At the same time, ignorance of the adverse events of that surgery was significantly associated with a high degree of acceptance of cosmetic interventions ($P = .001$). In contrast, the region of Saudi Arabia did not impact the acceptance of cosmetic surgery.

Regarding the considered domain of ACSS, Saudi participants and those older than 25 had a significantly high acceptance level of cosmetic surgery, with a *P*-value of <.001. In addition, the married, postgraduate, and employed respondents had a higher acceptance level of cosmetic interventions ($P < .001$). The high income (more than 10,000 SR)

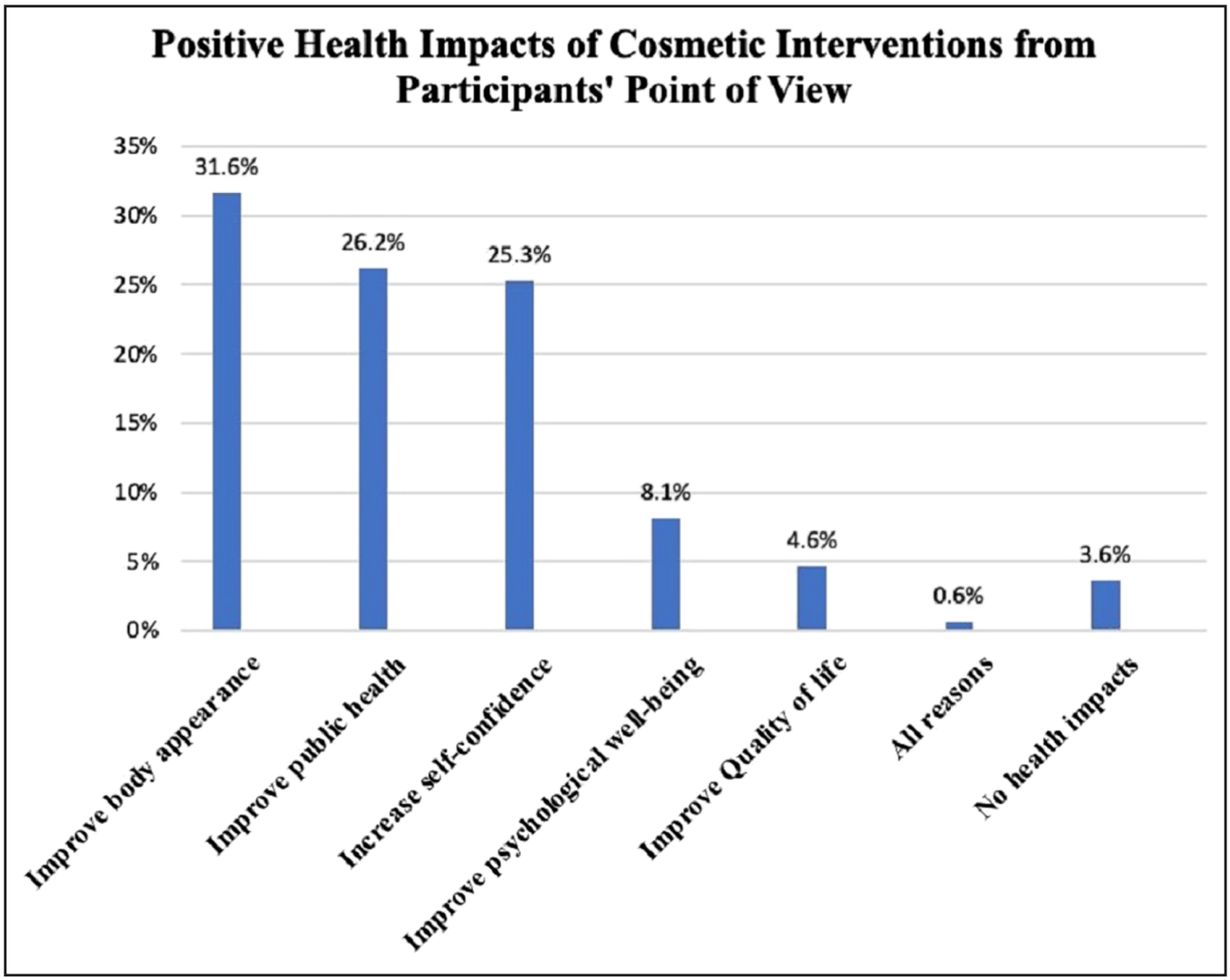

Figure 2. Positive health impacts of cosmetic interventions from participants' points of view.

was statistically associated with the high acceptance of cosmetic surgery with a *P*-value of <.001. Additionally, recognizing the necessity of some cosmetic interventions was significantly associated with the high acceptance of those interventions ($P < .001$). On the other hand, the participant who underwent cosmetic interventions had a higher acceptance of having another cosmetic intervention with a *P*-value of <.001. Meanwhile, the individuals who well recognized the adverse events of cosmetic interventions showed a lower level of acceptance for these types of surgery ($P = .001$). Generally, the overall acceptance of cosmetic interventions was affected by various factors. Saudi nationality, older age (more than 25 years), postgraduate education, and high income (more than 10,000 SR) were statistically associated with increased acceptance of cosmetic interventions ($P < .001$ for all factors). Married and employed individuals had highly acceptable levels for cosmetic interventions compared to others, with a *P*-value of <.001. The participants who recognized the benefits of cosmetic interventions highly accepted that surgery ($P < .001$). Additionally, individuals who have undergone cosmetic interventions had a highly significant acceptance of those interventions ($P < .001$). Meanwhile, the participants who knew the side effects of cosmetic interventions showed lower acceptance levels ($P < .001$). In contrast, the different regions in Saudi Arabia were not statistically associated with the acceptance of cosmetic interventions. All data are illustrated in Table 4.

DISCUSSION

The present study explored the prevalence of cosmetic interventions among females in Saudi Arabia and their

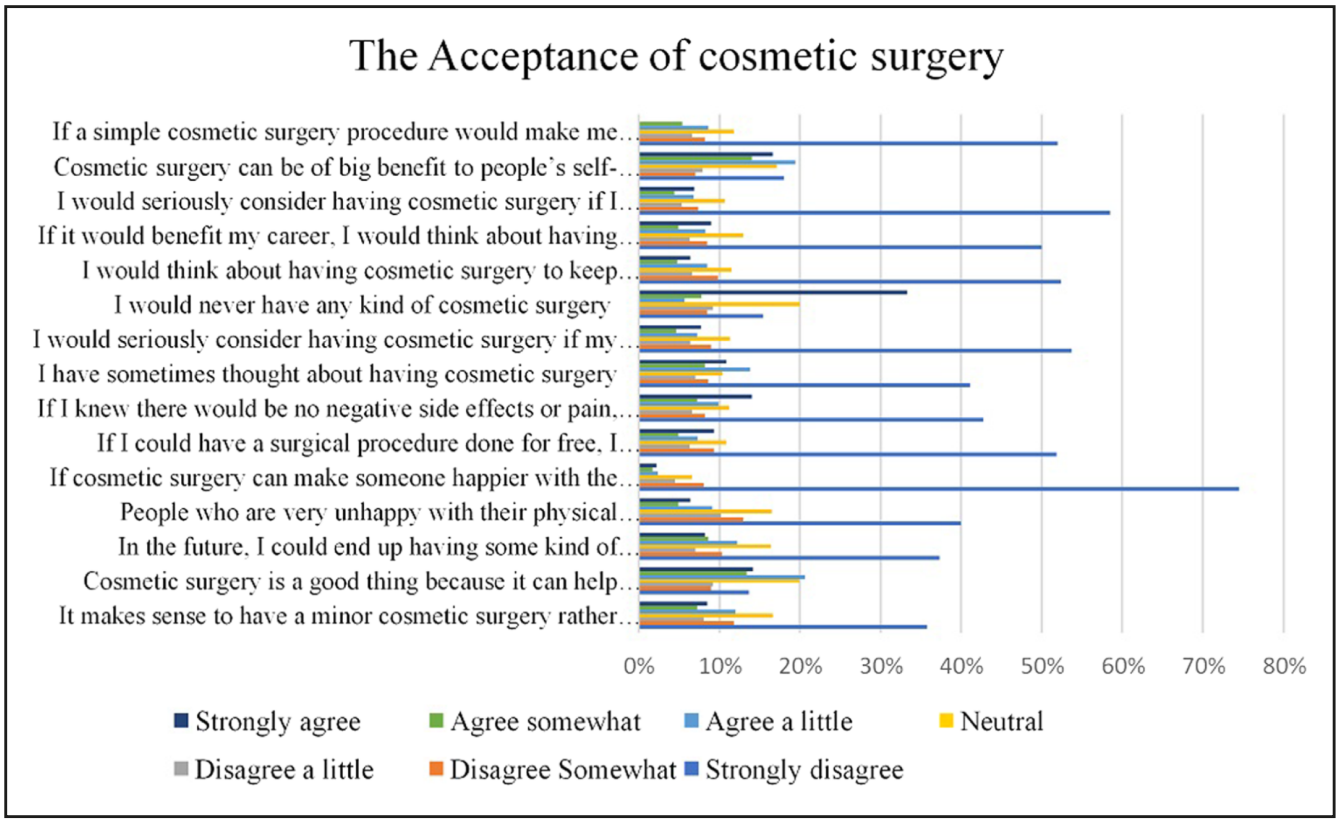

Figure 3. The acceptance of cosmetic surgery.

acceptance of those interventions. The revealed prevalence of cosmetic interventions among females was 10%. This rate is much higher than that reported in a study conducted among Saudi female students, where the prevalence of cosmetic interventions was 2.2%. Another study on female students at Philadelphia Universities revealed a prevalence of 5%.[16,17]

In the present study, a stronger desire to undertake cosmetic interventions was observed among older females (more than 25 years; $P < .001$). Therefore, age might be a reasonable factor for performing cosmetic interventions. Despite the cultural differences, in Iran, a study illustrated a similar incidence of cosmetic surgery (11%) among females aged 37.25 $\pm$ 0.5 years.[18] Another study conducted by Li et al demonstrated that age was a predictive factor for cosmetic intervention. In particular, participants aged 19 to 34 were more likely to perform cosmetic interventions (76.9%).[19] Another study in Japan illustrated that most participants who underwent cosmetic interventions were aged 35.[20]

In the current study, factors such as income, education levels, marital status, and employment status significantly impacted the incidence of cosmetic surgery. For instance, employed females with a postgraduate education had a higher rate of cosmetic interventions. A study in China demonstrated that employed participants were more inclined to perform cosmetic surgery.[19] The same study showed that higher education participants were more likely to perform cosmetic interventions.[19] Another study in Saudi Arabia demonstrated that most participants who performed cosmetic surgery had a university degree.[21] Additionally, Schlessinger et al illustrated that a high education level was associated with the incidence of cosmetic surgery.[22] Employed people with high education levels might think that improving their body and facial appearance would help them in their careers and social progress.[18]

Furthermore, married females showed a higher rate of performing cosmetic interventions. Another study demonstrated that married participants were more willing to undergo cosmetic interventions to make them more attractive to their partners.[22] Li et al reported that marital status was a predictive factor for cosmetic surgery.[19] Another Saudi study showed a higher prevalence of cosmetic surgeries among married participants.[21] In the present study, we did not investigate if the increased incidence of cosmetic intervention among married females is a result of if the husband paid for it or not. Future studies are required to assess the impact of the source of payment on the prevalence of cosmetic surgeries.

Moreover, the current study illustrated that high economic status was significantly associated with the incidence of

Table 3. Factors Associated With the Prevalence of Cosmetic Intervention Among Participants ($n = 3007$)

Factors	Categories	Undergoing cosmetic intervention		*P*-value
		Yes ($n = 312$)	No ($n = 2695$)	
Age	≤25 years	121 (5.9%)	1934 (94.1%)	<.001
	>25 years	191 (20.1%)	761 (79.9%)	
Nationality	Saudi	296 (10.7%)	2477 (89.3%)	.065
	Non-Saudi	16 (6.8%)	218 (93.2%)	
Region of Saudi Arabia	Northern	26 (14.9%)	148 (85.1%)	.005
	Southern	28 (8.4%)	305 (91.6%)	
	Eastern	47 (12.1%)	342 (87.9%)	
	Western	113 (8.6%)	1208 (91.4%)	
	Central	98 (12.4%)	692 (87.6%)	
Marital status	Married	135 (19%)	576 (81%)	<.001
	Unmarried	177 (7.7%)	2119 (92.3%)	
Educational level	Illiterate to high school	35 (5.6%)	587 (94.4%)	<.001
	University degree	199 (9.9%)	1813 (90.1%)	
	Post graduated	78 (20.9%)	295 (79.1%)	
Employment status	Student	90 (5%)	1693 (95%)	<.001
	Unemployed	69 (10.6%)	581 (89.4%)	
	Employed	153 (26.7%)	421 (73.3%)	
Salary	<10,000 SR	130 (7.9%)	1523 (92.1%)	<.001
	>10,000 SR	182 (13.4%)	1172 (86.6%)	
Know the importance of cosmetic surgery	Yes	84 (39.3%)	130 (60.7%)	<.001
	No	228 (8.2%)	2565 (91.8%)	
Know the side effects of cosmetic surgery	Yes	216 (9.8%)	1993 (90.2%)	.074
	No	96 (12%)	702 (88%)	

Table 4. Factors Associated With the Overall Acceptance of Cosmetic Interventions Among Participants ($n = 2982$)

Factor	Level	Total score		*P*-value
		Mean	Standard deviation	
Age	≤25 years	42.36	21.226	<.001
	>25 years	49.15	24.571	
Nationality	Saudi	45.05	22.681	<.001
	Non-Saudi	38.18	20.095	
Region of Saudi Arabia	Northern	41.98	23.039	.235
	Southern	43.04	21.878	
	Eastern	45	24.241	
	Western	44.88	22.162	
	Central	44.88	22.549	
Marital status	Married	48.47	24.006	<.001
	Unmarried	43.29	21.955	
Educational level	Illiterate to high school	39.70	20.925	<.001
	University degree	45.45	22.561	
	Post graduated	47.52	24.054	
Employment status	Student	42.26	21.054	<.001
	Unemployed	44.65	22.985	
	Employed	51.35	25.098	
Salary	<10,000 SR	43.14	22.280	<.001
	>10,000 SR	46.21	22.801	
Know the importance of cosmetic surgery	Yes	68.47	25.603	<.001
	No	42.69	21.234	
Know the side effects of cosmetic surgery	Yes	43.65	22.354	<.001
	No	46.95	22.976	
Undergo a cosmetic surgery	Yes	68.53	20.938	<.001
	No	41.74	21.043	

cosmetic interventions. A study conducted in the United States of America demonstrated that most patients who performed cosmetic interventions had a higher income.[23] Additionally, a Saudi study showed that most patients performing cosmetic surgery had a good income.[21] Indeed, cosmetic interventions are unnecessary ones that patients usually consider to improve their appearance, and they must not be worried about the costs of those interventions.[18]

The current study also assessed the acceptance of cosmetic interventions among participants. Additionally, the study illustrated the associated factors with the participants' acceptance. In the present study, the mean overall acceptance of cosmetic interventions was 44.52 representing a below-average acceptance. Another study among nursing students illustrated that the acceptance of cosmetic interventions was 71.29%.[24] Additionally, the overall acceptance was 60.89% among nursing students in North Korea.[25] This high acceptance level of cosmetic interventions among nursing students could be attributed to their excessive exposure to cosmetic interventions all the time. And accordingly, they become interested in aesthetics. In Riyadh, a

study demonstrated that the overall acceptance of cosmetic interventions among Saudi populations was 43.9%.[26] The lower acceptance of cosmetic interventions in our study than in the others could be attributed to the religious background in Islamic countries. In our study, 35.8% of participants refused cosmetic interventions for religious reasons.

Moreover, the present study illustrated that interpersonal reasons were the most prevalent determining factors for acceptance of cosmetic interventions compared to social and considerate reasons. The same findings were demonstrated in the study among nursing students.[24] In our study, an age of more than 25 years was statistically significantly associated with a high acceptance of cosmetic interventions. On the other hand, age under 29 was more associated with the high acceptance of those interventions in the study among nursing students.[24] Meanwhile, the Saudi study showed that age does not significantly impact the acceptance of cosmetic surgery.[26] In the present study, higher education and high income were significant factors associated with the high acceptance of cosmetic interventions. Similarly, a Singaporean study illustrated that participants with a higher education level had a significant acceptance regarding cosmetic surgery.[27] In contrast, the study among nursing students demonstrated that postgraduate nursing students are less accepted to cosmetic interventions than university students.[24] Meanwhile, the Saudi study in Riyadh illustrated that higher education was more associated with accepting cosmetic interventions.[26]

The current study showed a significantly higher acceptance level of cosmetic interventions among married females. In contrast, another Saudi study reported no significant association between marital status and acceptance level among Saudi populations.[26] In the current study, economic status, previous cosmetic surgery, and recognition of the necessity of cosmetic interventions were significantly correlated with the acceptance of cosmetic interventions. Similarly, a study conducted among Korean adults showed a positive association between previous experience with cosmetic intervention and the acceptance of that intervention.[28]

The current study had a limitation in assessing the prevalence of cosmetic interventions by using a self-assessed questionnaire which is considered a subjective tool leading to bias. Self-assessed is considered a measurement error, especially in a sensitive context such as undergoing cosmetic intervention in the Middle East which leads to overreporting or underreporting.

In addition, subsequent studies are needed to investigate the prevalence of different types of cosmetic intervention, such as surgical or minimally invasive procedures. Besides, the real reasons for undergoing these procedures are for beauty, increasing self-esteem, or medical reasons.

CONCLUSIONS

The present study demonstrated a surprising prevalence of cosmetic interventions among females in Saudi Arabia. Nevertheless, the study highlighted a below-average level of acceptance among the same population, which indicates that despite Saudi females reporting that they do not accept plastic surgery, they are undergoing procedures nonetheless. This could be a result of the surrounding culture that does not support or encourage undergoing cosmetic interventions.

Further studies are required to assess the prevalence of those interventions using objective tools, such as medical records or in-person interviews. Future studies are also needed to illustrate the association between the acceptance of cosmetic interventions and other factors, such as self-esteem, satisfaction, and depression, to explore cosmetic interventions in more depth.

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