

The Influence of Social Media on Psychological Perception and Decision-Making Towards Rhinoplasty: A Cross-Sectional Study

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Abstract

Background: Social media has modernized beauty standards by promoting facial aesthetics, affecting the tendency towards cosmetic surgery, such as Rhinoplasty. In Saudi Arabia, the overuse of Instagram, Snapchat, and TikTok has contributed to the exposure of appearance-based content and perceptions of nasal beauty.

Purpose: This study aimed to determine the impact of social media on psychology, nasal beauty perceptions, body image dissatisfaction, and decision-making of Rhinoplasty in Saudi adults.

Materials and Methods: A cross-sectional study was conducted through social media using a self-reported questionnaire. Through convenience sampling, 385 participants, including 70.3% women, aged between 20 and 30, were recruited. Demographics, frequencies of use of social media, exposure to cosmetic content and psychological perceptions were gathered. Statistical analysis was completed using descriptive statistics, Pearson correlation, and multiple regression modelling using SPSS version 25.

Results: High levels of exposure to cosmetic content were reported. About 78.0% had seen before-and-after rhinoplasty images constantly, 77.2% felt that the cosmetic content influenced self-perception, and 78.5% were concerned about the nose's appearance. About 60.9% of the participants often checked their noses in the mirrors, and 48.8% avoided social situations. Unrealistic expectations were familiar with 65.2% of the participants who believed that Rhinoplasty could even make the nose perfect. About 64.2% of the participants expected to look like the transformations they see online. Close relations were established between social media use and cosmetic exposure ($r = .838$, $p < 0.01$). The significant predictors of interest in Rhinoplasty were social media usage ($ab = .493$, $p < 0.001$) and unrealistic expectations ($ab = .163$, $p = 0.003$).

Conclusion: Social media is a strong determinant of perceptions of beauty, a predictor of body dissatisfaction, and an indicator of interest in Rhinoplasty among Saudi young adults. This study suggested the importance of awareness of Rhinoplasty preoperatively.

Keywords: Social Media, Rhinoplasty, Body Image, Perception, Body Dysmorphic Disorder

Introduction

Social media has emerged in the past decade and has caused a profound transformation in ideas of beauty and aesthetics (1). Visual-based platforms such as Instagram, TikTok, and Snapchat have raised a culture of visual representation where visual components focus on facial aesthetics. It also facilitates continuous exposure to visual images and videos that highlight idealized appearances (2). Rhinoplasty is one of the most desired

cosmetic procedures because it influences face harmony and self-image. The increased demand indicates a more widespread social change in which digital media creates more beauty ideals than traditional cultural norms (3).

Social media has substantially impacted cosmetic preferences in Saudi Arabia, and some of the most popular media in this area include Instagram, Snapchat, and TikTok (4). It has been determined that a significant number of Saudi citizens are highly active on appearance-

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related digital content, which has led to increased demand for the aesthetic procedure, including nose surgery (5). Women and younger adults form the highest population of individuals pursuing nasal cosmetic surgery based on the growing exposure to globalized beauty standards through online interactions (6).

Rhinoplasty or nose shaping is a surgical procedure that has become popular in the Saudi region and worldwide due to the increase in the number of people who desire facial and beauty enhancement (7). In 2019, Rhinoplasty constituted 60% of all plastic surgeries in Saudi Arabia (8). The growing prevalence of this surgery among other age categories is due to advances in surgical techniques and their accessibility. Younger adults are especially considering undergoing Rhinoplasty, as they are highly involved with digital media (9). Social comparisons caused by influencers and beauty content have been found to affect self-perception and the drive to make facial improvements. In that regard, the psychological factors, including lack of perceived attractiveness, peer pressure, and societal norms, are considered the most critical elements defining surgical choices (10).

People are regularly exposed to transformation videos, beauty tutorials and advertising material conveying an ideal nose structure (11). Social applications, especially TikTok and Instagram, are among the most widely used in the Saudi region. Additionally, these applications promote these tendencies by pairing users with beauty-related content due to the algorithms. This repetitive visibility is linked to body awareness and heightened aesthetic issues (12). Watching edited faces, many individuals can start comparing their own faces to these enhanced images, which can trigger perceptions of inadequacy and even lead to thoughts of plastic surgery (3).

Psychological contributors, especially body image dissatisfaction, significantly influence the rhinoplasty-related decisions (13). The persistent idea of the aesthetic ideal can lead to increased self-observation, where the slightest imperfection will be considered a significant flaw. This can result in body dysmorphic tendencies, marked by driven attention to the supposed flaws, mirror checking, and withdrawal. However, not everyone who pursues Rhinoplasty has these tendencies. However, the increase in social media content consumption has been connected to increased appearance-related anxiety and dissatisfaction, making any psychological evaluation a necessary part of making cosmetic decisions (14).

Therefore, this study explored the impact of social media

on psychological perceptions and decision-making about Rhinoplasty in the Saudi Arabian population. Additionally, it assessed the influence of social media cosmetic content, beauty filters, and influencer trends on body image, pos surgery expectations, and desire to make cosmetic adjustments to the nose.

Research Question

What is the impact of social media exposure to cosmetic transformation content on psychological perceptions, body image, and decision-making regarding Rhinoplasty among the Saudi population?

H1 ((Hypothesis)

The exposure to social media has a significant impact on psychological perceptions and decision-making regarding Rhinoplasty among the Saudi population.

H0 (Null Hypothesis)

Exposure to social media does not play a significant role in the Saudi population's psychological perceptions and decision-making regarding Rhinoplasty.

Literature Review

The increasing popularity of cosmetic procedures, specifically Rhinoplasty, is strongly associated with the extensive use of social media (15). Rhinoplasty is one of the most popular aesthetic procedures around the globe, and its popularity has grown massively in North America, Europe, Asia, and the Middle East. Sushruta, an Indian surgeon, first described reconstructive nose surgery about 750–800 BC (16). The popularity of social media outlets, particularly Instagram, Snapchat, and TikTok, has become a major mediator of beauty trends because their features expose users to image- and appearance-based content over time (17). These websites influence the establishment of new beauty standards and make surgical procedures normal, affecting people's choice of whether or not to have Rhinoplasty (11).

Body Dysmorphic Disorder and Rhinoplasty Motivation

Body Dysmorphic Disorder (BDD), a psychological condition characterized by an excessive preoccupation with perceived physical flaws, is considered to play a significant role in influencing motivations for undergoing Rhinoplasty (18). The prevalence of BDD in the general population varies between 0.7 and 2.4%, although in people interested in cosmetic procedures, prevalence has been much higher (19). Al Awadh et.al (2024) in the study revealed that BDD amongst rhinoplasty

patients is between 22-52% showing that these people are under psychological burden (20). Similarly, a study by Wei et.al (2024) reported that out of 488 participants, 41.0% screened positive for BDD. Moreover, rhinoplasty patients had increased rates of BDD (21). These psychological issues are of particular importance in the Saudi Arabian region due to the high social media exposure and interest in cosmetic procedures. Moreover, younger adults are more inclined to Rhinoplasty (22).

Role of Social Media Filters and Digital Alterations

Social media has radically changed the picture of beauty by adding digital filters, editing apps, and effects. Applications such as Snapchat and Instagram, among the most widely used platforms in the Saudi region, can edit facial characteristics in real time, encouraging patients to pursue their modified faces, which are often impossible without surgery (23). This has led to the creation of what is known as Snapchat Dysmorphia, which is the need to look like the filtered photographs. In the US, 79% of plastic surgeons have said that they have had patients who come specifically for a cosmetic surgery to get a face similar to a digitally improved image. Asiri et.al (2024) reported that 90.9% of the study participants preferred a straight nose and 74.6% preferred a straight nose with an upward tip. About 85.3% participants desired a nose with a sharp tip shape, and 75.2% wanted narrow nostrils. About 87.5% of the participants preferred a small-sized nose, and 57.1% preferred a long nose (24).

Influence of TikTok and Cosmetic Trends on Rhinoplasty Decisions

TikTok has gained prominence in developing such trends as Rhinoplasty (25). Such hashtags as #nosejob, #nosejobcheck, and #plasticsurgery gained 3.8 billion views (26). The widespread exposure fosters a continual comparison between what women look like in their natural form and digitally altered images and can cause greater dissatisfaction. These patterns have been especially pronounced in the Saudi region, where TikTok is one of the most popular social media platforms among young females, particularly interested in beauty content (27). Multiple works have estimated how social media affects people's interest in Rhinoplasty. In one retrospective study performed in Saudi Arabia, among 322 patients who underwent Rhinoplasty, 81.4% reported that social media had affected their decision to get a rhinoplasty procedure. It also impacted the recovery stage, which was observed

in 71.8% of the patients (15). According to another study conducted in Saudi Arabia by Obeid et.al (2022), Snapchat was the most used platform among 205 participants, of which the majority were females (91.2%) aged 26-35 years. The primary factors that influenced rhinoplasty decisions were before-and-after photos (76.1%), specifically among women ($P = 0.001$), with 52.7% also influenced by social media advertisements (3).

The past literature has discussed the motivation behind undergoing Rhinoplasty and the impact of social media. However, there is a lack of studies emphasizing psychological perceptions, body image issues and exposure to internet content. The combined effects of influencers, cosmetic filters, and transformation images on decision-making have received few investigations (3, 28, 29). Such studies are exceptionally scarce in the Saudi region, where the rate of social media and rhinoplasty procedures is standard. The present study addressed this gap by analyzing the role of each factor in contributing to the growing popularity of Rhinoplasty. The study's novelty is quantifying these interconnected variables based on cross-sectional data for the Saudi population, which provides insight into the effect of the digital platform on aesthetic perceptions and surgical considerations.

Methodology

Study design and setting

This cross-sectional observational study investigated the impact of social media exposure on psychological perceptions, body image, and decision-making in seeking Rhinoplasty. The study was conducted in the Saudi Region via an internet platform based on a self-administered questionnaire posted on social media. A convenience sampling technique was used to recruit a total of 385 participants. Of the participants, 275 were females, 94 were males, and 16 did not disclose gender.

Ethical Consideration

The Institutional Review Board (IRB) in Saudi Arabia approved the study. Informed consent, anonymity and confidentiality of the participants were secured, per Declaration of Helsinki principles.

Eligibility Criteria

There were the following eligibility criteria:

Inclusion Criteria

- i. Adults 18 years and older.

- ii. Citizens of the Kingdom of Saudi Arabia.
- iii. Instagram, Snapchat, or TikTok users.
- iv. Participants who have watched the appearance-related content, including cosmetic facelifts, beauty filters, and trends promoted by the influencers.

Exclusion Criteria

- i. Individuals under 18 years.
- ii. Visitors or non-Saudi residents.
- iii. Respondents who were not frequent social media users or were exposed to little beauty-related content.
- iv. People who have already undergone reconstructive Rhinoplasty because of trauma or medical purposes have different reasons than cosmetic motivations.

Data Collection and Procedure

The participants completed an online, administratively convenient, structured questionnaire, which offered the advantage of being self-reported but had the limitation of restricted demographic representation. The survey was posted across all common social media platforms used in Saudi Arabia to reach the highest number of people exposed to beauty-related content. This questionnaire was categorized into the following sections: The first part noted demographic information such as age, sex, educational level, income, and residence. The second part investigated the use of social media, the popular social media platforms, the duration of each day spent on social media, and exposure to beauty-related materials. The third section measured their exposure

to cosmetic transformation-related material, including before-and-after rhinoplasty examples, aesthetic trends, and influencer-based promotions.

Statistical Analysis

Data analyses were performed with SPSS version 25. Demographic data, patterns of social media use, and exposure to cosmetic transformation media were measured using descriptive statistics, such as frequencies and percentages. The Pearson correlation coefficient was used to investigate the association among variables, and multifactor regression analysis was used to determine the possible predictors of rhinoplasty-related choice. All analyses used a p-value of <0.05 as statistically significant.

Results

Table 1 shows that most participants are young adults aged 20 to 30, with females comprising a noticeable % the sample. The majority of participants have a bachelor’s degree, accompanied by those having master’s and doctorate degrees. In case of nationality, more than half belong to the Saudi region; on the other hand, the rest are from different nationalities. The employment status demonstrates that students comprise the largest group, accompanied by employed persons, with some unemployed or retired. Most respondents are unmarried, and income levels are transformed, with the biggest group earning less than 3000 SR a month. Arrangements of living are approximately evenly distributed between those residing with family and those living independently.

Table 1. Sociodemographic Information of Participants

Factors		Frequency	Percentage
Gender	Male	94	24.0%
	Female	275	70.3%
	Prefer not to say	16	4.1%
Age	20-30	275	70.3%
	31-40	31	7.9%
	41-50	39	10.0%
	51-60	31	7.9%
	61+	9	2.3%
Nationality	Saudi Region	200	51.2%
	Other	185	47.3%

Factors		Frequency	Percentage
Education	Bachelors	174	44.5%
	Masters	128	32.7%
	Doctorate	83	21.2%
Employment status	Student	161	41.2%
	Employed	129	33.0%
	Unemployed	35	9.0%
	Retired	60	15.3%
Marital Status	Single	282	72.1%
	Married	88	22.2%
	Divorced	12	3.1%
	Widowed	3	.8%
Monthly household income	<3000 SR	161	41.2%
	3000-6000 SR	129	33.0%
	6001-10,000 SR	35	9.0%
	>10,000 SR	60	15.3%
Living situation	With Family	200	51.2%
	Independently	185	47.3%

Table 2 indicates a high level of interest and awareness regarding Rhinoplasty among participants. Over half frequently consider undergoing the procedure, and many reflect on past experiences, suggesting prior exposure. A significant portion also thinks about having or getting other cosmetic procedures. Social media appears

influential, with many participants thinking about others affected by it. Interest increases notably when cost is not a factor. However, most respondents clearly understand Rhinoplasty, reflecting both awareness and social influence in shaping attitudes toward cosmetic surgery.

Table 2. Rhinoplasty Awareness and Experience

How often do you consider undergoing Rhinoplasty?	Always	100	25.6%
	Often	120	30.7%
	Sometimes	111	28.4%
	Rarely	38	9.7%
	Never	16	4.1%
How often do you reflect on your previous experience with Rhinoplasty?	Always	143	36.6%
	Often	107	27.4%
	Sometimes	93	23.8%
	Rarely	30	7.7%
	Never	12	3.1%
How often do you think about having undergone or getting other cosmetic procedures?	Always	90	23.0%
	Often	145	37.1%
	Sometimes	98	25.1%
	Rarely	39	10.0%
	Never	13	3.3%

How often do you think about someone you know who was influenced by social media to get Rhinoplasty	Always	152	38.9%
	Often	102	26.1%
	Sometimes	94	24.0%
	Rarely	27	6.9%
	Never	10	2.6%
How often would you consider Rhinoplasty if the cost were not an issue?	Always	137	35.0%
	Often	116	29.7%
	Sometimes	94	24.0%
	Rarely	29	7.4%
	Never	9	2.3%
How often do you feel you clearly understand what Rhinoplasty is?	Always	96	24.6%
	Often	147	37.6%
	Sometimes	93	23.8%
	Rarely	42	10.7%
	Never	7	1.8%

Table 3 shows high social media engagement among participants, particularly with beauty-related content. Over half of them spend more than two hours daily on social media and frequently check it daily. Most use platforms like Instagram, Snapchat, or TikTok for aesthetic

content, follow beauty influencers or surgeons, and watch cosmetic transformation videos. Notably, 63.4% report being influenced by appearance-related content, indicating social media's significant role in shaping cosmetic perceptions and interests.

Table 3. Social Media Usage Habits

I spend more than 2 hours daily on social media	Always	97	24.8%
	Often	124	31.7%
	Sometimes	105	26.9%
	Rarely	50	12.8%
	Never	9	2.3%
I frequently check social media throughout the day	Always	139	35.5%
	Often	111	28.4%
	Sometimes	90	23.0%
	Rarely	36	9.2%
	Never	9	2.3%
I use Instagram, Snapchat, or TikTok for beauty-related content	Always	99	25.3%
	Often	125	32.0%
	Sometimes	107	27.4%
	Rarely	45	11.5%
	Never	9	2.3%

I follow influencers or surgeons related to aesthetics	Always	152	38.9%
	Often	100	25.6%
	Sometimes	87	22.3%
	Rarely	37	9.5%
	Never	9	2.3%
I spend time reading comments or watching cosmetic transformation videos.	Always	142	36.3%
	Often	99	25.3%
	Sometimes	94	24.0%
	Rarely	38	9.7%
	Never	12	3.1%
I am influenced by social media content related to appearance.	Always	140	35.8%
	Often	108	27.6%
	Sometimes	89	22.8%
	Rarely	35	9.0%
	Never	13	3.3%

Table 4 highlights participants' exposure to cosmetic content on social media. A large majority, 78.0% reported always seeing before-and-after rhinoplasty images, and 69.1% stated that such content increases their desire for cosmetic procedures. Additionally, 77.2% indicated that online cosmetic content influences how they perceive their own appearance. A considerable proportion, 57.9% also reported feeling pressure to improve their

appearance after exposure to such content. Use of facial-altering beauty filters on platforms like Snapchat and TikTok was widespread, with 78.0% always using them. Furthermore, 89.3% believed cosmetic procedures are standard among social media influencers. These findings suggest high exposure to idealized aesthetic content, which may influence self-image and cosmetic aspirations.

Table 4. Exposure to Cosmetic Content

I see before/after rhinoplasty images on social media.	Always	305	78.0%
	Often	41	10.5%
	Sometimes	28	7.2%
	Rarely	11	2.8%
Before-and-after pictures on Snapchat or TikTok increase my desire for cosmetic procedures.	Always	270	69.1%
	Often	53	13.6%
	Sometimes	47	12.0%
	Rarely	9	2.3%
	Never	6	1.5%
I feel cosmetic content online affects how I view my own appearance.	Always	302	77.2%
	Often	43	11.0%
	Sometimes	34	8.7%
	Rarely	5	1.3%
	Never	1	.3%

I feel pressured to improve my appearance after seeing such content	Always	108	27.6%
	Often	119	30.4%
	Sometimes	106	27.1%
	Rarely	42	10.7%
	Never	10	2.6%
I use Snapchat or TikTok beauty filters that alter my facial features.	Always	305	78.0%
	Often	42	10.7%
	Sometimes	28	7.2%
	Rarely	9	2.3%
	Never	1	.3%
I think undergoing cosmetic procedures is common among social media influencers about my appearance.	Always	349	89.3%
	Often	17	4.3%
	Sometimes	10	2.6%
	Rarely	8	2.0%
	Never	1	.3%

Table 5 reveals a high prevalence of dysmorphic concerns about nasal appearance among participants. A large majority (78.5%) reported being consistently concerned about the appearance of their nose, with 65.5% believing their nose is deformed despite reassurance from others. Nearly half (48.8%) admitted avoiding social situations due to nasal concerns, and 60.9% frequently check their nose in mirrors or reflective surfaces.

Furthermore, 71.6% spend significant time thinking about their nose and ways to improve it. Notably, 78.5% stated that these concerns negatively affect their mood or daily functioning. These findings suggest a strong presence of body dysmorphic symptoms specifically centered on nasal appearance, indicating potential psychological distress linked to self-image.

Table 5. Dysmorphic Concerns

Are you very concerned about the appearance of your nose?	Always	307	78.5%
	Often	35	9.0%
	Sometimes	31	7.9%
	Rarely	7	1.8%
	Never	5	1.3%
Do you think your nose is deformed even though others say it looks normal?	Always	256	65.5%
	Often	54	13.8%
	Sometimes	50	12.8%
	Rarely	19	4.9%
	Never	6	1.5%
Do you avoid social situations because of your nose?	Always	191	48.8%
	Often	78	19.9%
	Sometimes	70	17.9%
	Rarely	34	8.7%
	Never	12	3.1%

Do you frequently check your nose in mirrors or reflective surfaces?	Always	238	60.9%
	Often	65	16.6%
	Sometimes	55	14.1%
	Rarely	24	6.1%
	Never	3	.8%
Do you spend much time thinking about your nose and how to improve it?	Always	280	71.6%
	Often	62	15.9%
	Sometimes	28	7.2%
	Rarely	14	3.6%
	Never	1	.3%
Do your concerns about your nose significantly affect your mood or daily functioning?	Always	307	78.5%
	Often	34	8.7%
	Sometimes	29	7.4%
	Rarely	12	3.1%
	Never	3	.8%

Table 6 reflects a high prevalence of unrealistic expectations regarding Rhinoplasty among participants. A considerable portion, 65.2% believe the procedure can make their nose perfect, and 64.2% expect surgical outcomes to mirror images seen online. Moreover, 59% think cosmetic surgery guarantees happiness and confidence. Dissatisfaction with results not matching

online transformations was common, with 66% indicating they would feel disappointed. A notable 67% prioritize appearance over personality, and 58.9% reported that their expectations are primarily shaped by social media content. These findings suggest that media-driven ideals may significantly influence patients' expectations, potentially leading to post-surgical dissatisfaction.

Table 6. Unrealistic Expectations

I believe Rhinoplasty can make my nose perfect	Always	149	38.1%
	Often	106	27.1%
	Sometimes	82	21.0%
	Rarely	37	9.5%
	Never	11	2.8%
I expect surgery results to match what I see online.	Always	92	23.5%
	Often	159	40.7%
	Sometimes	75	19.2%
	Rarely	50	12.8%
	Never	9	2.3%
I think cosmetic surgery guarantees happiness and confidence.	Always	119	30.4%
	Often	112	28.6%
	Sometimes	93	23.8%
	Rarely	50	12.8%
	Never	11	2.8%

I would feel dissatisfied if the results do not look like online transformations.	Always	162	41.4%
	Often	96	24.6%
	Sometimes	76	19.4%
	Rarely	40	10.2%
	Never	11	2.8%
I think appearance is more important than personality in today's world.	Always	172	44.0%
	Often	90	23.0%
	Sometimes	77	19.7%
	Rarely	36	9.2%
	Never	10	2.6%
My expectations of surgery are shaped mainly by social media content	Always	123	31.5%
	Often	107	27.4%
	Sometimes	94	24.0%
	Rarely	52	13.3%
	Never	9	2.3%

Table 7 presents participants' satisfaction with their nasal appearance. While a majority expressed satisfaction with specific nasal features, 72.6% with nose width and length, 65.2% with side profile, 58.1% with the nasal tip, and 57.8% with nostril size and shape, these figures are contrasted by notable dissatisfaction. For instance, 66.8%

reported avoiding photos due to dissatisfaction with their nose, and only 51.4% felt their nose fit well with their facial features. These results suggest a complex relationship between perceived satisfaction and underlying aesthetic concerns, indicating that insecurities may persist even among those who express satisfaction.

Table 7. Satisfaction with Appearance

I feel satisfied with the width and length of my nose	Always	284	72.6%
	Often	65	16.6%
	Sometimes	33	8.4%
	Rarely	3	.8%
I feel confident about the shape of my nose from the side profile	Always	255	65.2%
	Often	69	17.6%
	Sometimes	53	13.6%
	Rarely	7	1.8%
	Never	1	.3%
I am satisfied with how the tip of my nose looks.	Always	227	58.1%
	Often	100	25.6%
	Sometimes	54	13.8%
	Rarely	4	1.0%
I feel that my nostrils are the right size and shape.	Always	226	57.8%
	Often	78	19.9%
	Sometimes	64	16.4%
	Rarely	13	3.3%
	Never	4	1.0%

I avoid taking photos because I dislike how my nose looks.	Always	261	66.8%
	Often	48	12.3%
	Sometimes	42	10.7%
	Rarely	30	7.7%
	Never	4	1.0%
I feel my nose fits well with the rest of my facial features	Always	201	51.4%
	Often	71	18.2%
	Sometimes	69	17.6%
	Rarely	37	9.5%
	Never	7	1.8%

Table 8 shows that, based on data from 385 participants, the table offers Pearson correlation coefficients in six variables associated with awareness of Rhinoplasty, social media habits, exposure to cosmetic content, dysmorphic worries, unrealistic aspirations, and satisfaction with appearance. Every correlation is positive and statistically significant, showing strong associations between such factors. For instance, a strong correlation between social media usage and exposure to cosmetic content ($r = .838$) exists, suggesting that people spending more time on social media are more generally prone to

cosmetic-related content. In addition, dysmorphic worries are directly related to unrealistic expectations ($r = .798$), which implies that individuals with distortions of body image try to possess greater and possibly unrealistic expectations related to appearance or outcomes of surgery. Awareness and experience of Rhinoplasty also demonstrate sufficient positive correlations with social media habits ($r = .789$), exposure to cosmetic material ($r = .745$), and dysmorphic issues ($r = .698$), underscoring that awareness and engagement with Rhinoplasty might be impacted by consumption of media and issues of body image.

Table 8. Correlation

		Rhinoplasty Awareness and Experience	Social Media Usage Habits	Exposure to Cosmetic Content	Dysmorphic Concerns	Unrealistic Expectations	Satisfaction with Appearance
Rhinoplasty Awareness and Experience	Pearson Correlation	1	.789**	.745**	.698**	.669**	.635**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385
Social Media Usage Habits	Pearson Correlation	.789**	1	.838**	.703**	.649**	.643**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	385	385	385	385	385	385
Exposure to Cosmetic Content	Pearson Correlation	.745**	.838**	1	.801**	.684**	.681**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	385	385	385	385	385	385

		Rhinoplasty Awareness and Experience	Social Media Usage Habits	Exposure to Cosmetic Content	Dysmorphic Concerns	Unrealistic Expectations	Satisfaction with Appearance
Dysmorphic Concerns	Pearson Correlation	.698**	.703**	.801**	1	.798**	.776**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	385	385	385	385	385	385
Unrealistic Expectations	Pearson Correlation	.669**	.649**	.684**	.798**	1	.791**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	385	385	385	385	385	385
Satisfaction with Appearance	Pearson Correlation	.635**	.643**	.681**	.776**	.791**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385

***. Correlation is significant at the 0.01 level (2-tailed).*

Table 9 demonstrates a model of regression containing five predictors (Satisfaction with Appearance, Social Media Usage Habits, Unrealistic Expectations, Dysmorphic Concerns, and Exposure to Cosmetic Content) that describe 67.6% variance in the dependent

variable ($R^2 = 0.676$). The strong correlation overall ($R = 0.822$) shows good prediction power, and the R^2 of 0.672, which is adjusted, affirms the model's reliability with no overfitting. The standard error (0.507) shows an average prediction error that is acceptable.

Table 9. Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.822 ^a	.676	.672	.5073656

a. Predictors: (Constant), Satisfaction with Appearance, Social Media Usage Habits, Unrealistic Expectations, Dysmorphic Concerns, Exposure to Cosmetic Content

Table 10 demonstrates that Social Media Usage Habits and Unrealistic Expectations are significant. Rhinoplasty

Awareness and Experience are positive predictors, with social media being the most decisive influence. Exposure to Cosmetic Content and Dysmorphic Concerns also exhibit positive trends; on the other hand, Satisfaction with Appearance does not significantly impact awareness.

Table 10. Coefficients

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
1					
(Constant)	.148	.049		3.041	.003

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
Social Media Usage Habits	.461	.051	.493	9.004	.000
Exposure to Cosmetic Content	.120	.067	.115	1.806	.072
Dysmorphic Concerns	.110	.063	.109	1.757	.080
Unrealistic Expectations	.152	.051	.163	2.965	.003
Satisfaction with Appearance	.025	.050	.026	0.496	.620

Discussion

Social media has been reshaping the perception of beauty by reinforcing unrealistic facial beauty ideals using filters, influencer trends, and before-and-after images (30). In Saudi Arabia, where social media is widely used, these online factors are highly significant in achieving cosmetic results and surgical procedures (31). The present study has presented substantial evidence in favour of the hypothesis (H1) that exposure to social media significantly influences perceptions on a psychological level. Body image dissatisfaction and decision-making towards Rhinoplasty have been observed among people in Saudi Arabia. The results indicate that social media is a significant source of cosmetic desires, denoting that 63.4% of the participants were affected by the appearance-related contents and 78% were regularly exposed to before and after images. The evidence directly opposed the H0, which had suggested that social media has no significant influence on rhinoplasty-related decisions.

The superiority of the hypothesis can be attributed to the observed relationships between social media usage and the psychological responses of the participants. The results suggested that increasing exposure to digitally tampered photos and video face transformations advances self-comparison, leading to insecurity (32). This discontentment leads to increased sensitivity to perceived defects, especially nasal aesthetics, and, eventually, encourages individuals to think of a cosmetic procedure (33). The results also showed many participants had unrealistic expectations, similar to the images produced online through surgery or other improvements. Such tendencies indicate the strong effect of algorithmic-based visuals on self-image and choice (34).

The statistical findings supported H1, indicating that digital

exposure is not a passive influence but an active factor in shaping aesthetic preferences and surgical intentions. These results indicated that regular exposure to filtered photographs and influencer posts results in internalized beauty standards, which makes surgical manipulations a normal solution to being beautiful (35). The study analysis also showed that 65.2% felt a rhinoplasty could transform their nose into a perfect one, and 64.2% felt the outcomes would resemble filtered photos online. This is in line with Di Gesto et.al (2022), who revealed that edited Instagram photos create unrealistic standards that expose one to postoperative discontent (36). Taha et al. (2023) also discovered that online transformation content was a significant determinant of expectations, and the present study observed that 58.9% of participants considered the pictures about the transformation they found online as their first source of expectations (37).

Self-photography is significant in terms of encouraging cosmetic thinking. The studies by Timraz et.al (2024) and Akarzae et.al (2020) revealed that 98.3% of the respondents actively used social media and 37.8% of respondents desired a cosmetic surgery such as; Rhinoplasty, lip fillers, chin implant, scar revision, cheek fillers, botox or facelift due to selfies (31, 38). The results indicated that self-evaluation and exposure to idealized digital content drive an intensified sensitivity toward perceived flaws, making it more probable to undergo a rhinoplasty procedure (39). In Saudi Arabia, where social media penetration exceeds 90% and selfie culture is exceptionally prominent, these behavioural patterns significantly raise appearance awareness and interest in rhinoplasty procedures (40)..

Conversely, the evidence does not support the null hypothesis, indicating that social media has no critical influence. However, results showed that social media's

role appears statistically significant. Compared to previous research, the findings prove that Snapchat, TikTok, and Instagram are becoming strong influencers of self-image and surgical choice (29).

Strengths and Limitations

A significant strength of this study is the extended sample size and multi-factorial analysis. Moreover, the study considered psychological perceptions, beauty filters, and influencer-driven content, which provide a more comprehensive picture of the influence of social media. Validated questionnaires contribute to reliability, and the study of Saudi Arabia makes the study valuable and of regional interest. However, limitations of this study arise as it has low generalizability outside the current population due to differences in cultural beauty standards and access to social media, depending on the region.

Conclusion

The use of social media plays a significant role in psychological perceptions, body-related dissatisfaction and decision-making towards Rhinoplasty, especially among young adults in Saudi Arabia. Frequent exposure to beauty filters, transformation pictures, and trend concepts considerably influences cosmetic desires and surgical anticipations. These observations highlight the necessity of enhanced awareness strategies to promote realistic beauty standards and informed decision-making regarding cosmetic surgeries.

Statements and Declarations

Conflict of Interest

None disclosed

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Data availability statement

Data available upon reasonable request from the corresponding author

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