

LITERATURE REVIEW

The use of social media and its influence on rhinoplasty decision

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Patients with exterior nasal deformity and cosmetic concerns are popular candidates for rhinoplasty, a treatment commonly performed by plastic surgeons and otolaryngologists¹. If you are self-conscious about your nose's size or form, rhinoplasty or a "nose job" may be a viable option for you².

The technique has progressed and has many uses beyond the well-known cosmetic benefits, such as restoring normal nasal function following an accident or illness or correcting breathing

issues that prevent sleep or physical activity³. Getting plastic surgery for purely aesthetic reasons has been increasingly popular recently. The popularity of minimally invasive cosmetic procedures like Botox and filler injections has contributed significantly to this development^{4,5}. Several things can influence the decision to get plastic surgery, but one of the biggest is how active you are on social media⁶. Patients considering cosmetic plastic surgery operations sometimes turn to readily available social media resources for information^{7,8}.

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MATERIAL AND METHODS

We reviewed the use of social media and its influence on rhinoplasty decisions. The literature survey was performed in PubMed, EBSCO, UpToDate, and ProQuest Central databases of Kırıkkale University and Google and Google Scholar databases. The keywords “social”, “media”, “rhinoplasty”, “male”, “female” were used separately or together. All data such as review paper, trials, randomized controlled trials and all scientific data were evaluated.

In Google, there were 3.530.000 results; in PubMed, there were 40 results and in UpToDate, there were 10 results. However, we used 48 references for this review paper.

SOCIAL MEDIA PLATFORMS

Nowadays, social media platforms play a significant role in disseminating knowledge. There has been a rise of 69% in the number of social media accounts in the United States between 2008 and 2019. About 40% of the world’s population, or 3.1 billion individuals, were predicted to be active social media users in April 2019. These numbers highlight the exponential development of online communities and provide further evidence for the boundless potential of disseminating knowledge. Social media has become increasingly crucial for worldwide advertising, networking, and content dissemination among doctors. However, ethical and legal constraints on protecting patients’ privacy significantly influence doctors’ use of social media. The advent of RealSelf in 2006 profoundly affected how doctors (mainly plastic surgeons) could market themselves online and assess the psychological and physical consequences of their patients’ treatments^{9,10}.

Applications in the realm of social media enable users to build profiles, publish and discuss material, and communicate with others. It is becoming increasingly common for people to spend time on social media sites chatting, gaming, and engaging in other forms of social and entertainment activity¹¹. These sites or platforms not only provide a place for people to share their thoughts and accomplishments, but they also serve as a hub for exchanging news, communication, education, information, and the activities of their friends¹².

There are unique characteristics of each platform¹³. In contrast to Twitter, which is better suited for disseminating ideas and brief documents¹⁴, Instagram is geared toward exchanging visual content. The term “social media addiction” has gained popu-

larity in recent years. Addiction to social media is characterized by “increased time spent online”, “craving the internet when not using it”, “decreased real-world activities and relationships”, “decreased quality of sleep”, and “excessive mental preoccupation”. In addition, various mental and physical health issues¹⁵ have been linked to excessive use of social media.

In the last few decades, compulsive use of social media has developed into a significant behavioural addiction. Addiction to social media, like other addictions, can severely limit one’s ability to function¹⁶.

RealSelf

Regarding elective cosmetic operations, RealSelf (realself.com) is one of the most popular online communities that brings former patients, prospective patients and doctors together through posts, photographs, feedback and reviews. Patients can post anonymously on RealSelf and grade their surgical outcome as “Worth It”, “Not Worth It”, or “Not Sure” to help others make a decision, unlike on consumer review websites like Google, Facebook and Yelp. In addition to general feedback, reviewers can rate their surgeon on various factors, such as bedside manner, aftercare and follow-up, using a unique 5-star system. Additionally, potential patients can use the age filter on RealSelf to find doctors who may be the most excellent fit for their surgery needs¹⁰.

The American Society for Aesthetic Plastic Surgery recommends another website called RealPatientRatings™ (realpatientratings.com), which allows users to sort reviews by the age of reviewers verified as actual patients. However, RealSelf offers a more participatory site where users may report the cost of their operations, upload before and after images, and document their experience in real-time. Patients can share their experiences on RealSelf at their discretion, allowing for anonymous feedback about the quality of care received. Data from RealSelf was used to examine the development of online ratings for cosmetic procedures¹⁰.

Selfies

Selfies, in particular, have been the subject of extensive research due to the interest they have generated in the topic of self-improvement in terms of physical appearance¹⁷. Researchers have looked into the selfie phenomenon¹⁸. It has been suggested that the need to take the perfect selfie might lead to unhealthy habits like restricting or eliminating certain foods or getting plastic surgery. Selfie-taking has also been linked to harmful and counterproductive habits^{17,19}. Despite considerable research into the possible link between social media use and other cosmetic procedures, no valid scales have been uti-

lized to examine social media addiction in women who have had breast augmentation¹³.

RHINOPLASTY AND SOCIAL MEDIA

In the worldwide cosmetic surgery market, rhinoplasty consistently ranks in the top²⁰. The American Society for Aesthetic Plastic Surgery reports that out of 17.7 million cosmetic procedures, 352,555 were rhinoplasty surgeries, making it the most common cosmetic operation²¹. In Saudi Arabia, 41% of patients opted for Botox, while 59% chose rhinoplasty as their facial plastic surgery of choice²². Social media, like celebrities, has been demonstrated to have a significant impact on surgical procedure participation; in this case, 64% of those who underwent rhinoplasty between 2015 and 2020 were influenced by it. Among the people whose lives were altered by social media, 58% were men. Concerns about physical appearance may increase due to time spent on social media, increasing the demand for services like plastic surgery^{23,24}.

Approximately 55% of facial plastic surgeons in the United Kingdom reported that patients in their cosmetic business were motivated by a desire to appear better in selfies in 2017, up from 13% in 2016²⁵. The likelihood of getting cosmetic surgery rises with exposure to the media, low self-esteem, and dissatisfaction with one's life, say Furnham and Levitas²⁶. A similar study indicated that 65.7% of patients who went to plastic surgery centres in Saudi Arabia were inspired to do so after seeing before-and-after photos of cosmetic surgery results posted on aesthetic surgeons' social media accounts. In Saudi Arabia, researchers found that the popularity of various facial cosmetic operations had increased by 72.2% due to the influence of social media influencers and celebrities²⁴⁻²⁷.

STUDIES FOR SOCIAL MEDIA AND RHINOPLASTY

The most surprising result was that contrary to common sense (because women tend to be more interested in and susceptible to advertising for cosmetic procedures), men were more likely than women to say that social media impacted their decision to get rhinoplasty²⁸⁻³⁰. Using questionnaires issued to members of the American Society of Plastic Surgeons, Andrew et al. (2013) conducted a descriptive survey on the use of social media. Influence on social media

and its common patterns were explained³¹. Almost half of those surveyed admitted to being daily social media users. Most respondents (56.7%) said they used social media because they saw it as an unavoidable part of modern medical practice. Others cited its usefulness as a marketing tool (52.1%) or a place to educate their patients (49%). Surgeons focusing mainly on cosmetic procedures were found to have the highest social media usage rates. More than two-thirds of respondents said that social media did not affect their work, while only 1.5% said the opposite. In 2019, Arab et al.²⁷ conducted a similar study to examine the impact of social media on the choice to have cosmetic surgery. After surveying 816 people, researchers found that 48.5% said social media motivated them to get plastic surgery. Almost half of them were plastic surgery patients who followed doctors online. Aldosari et al.²⁵ researched Saudi Arabia in 2019 to see how social media affected the demand for facial plastic surgery. Sixty-plus percent of respondents said that surgeons' self-promotion increased the popularity of cosmetic procedures. In contrast, 53.4% said the same about cosmetic television programs, and 65% said social media played a role in shaping attitudes toward cosmetic surgery.

In their study, Alghamdi et al.⁷ found that social media significantly impacted patients' decisions to have rhinoplasty, particularly among men. Indirectly, social media platforms influenced case decisions by disseminating information about celebrities who had gotten cosmetic rhinoplasty. This was a more influential incentive than marketing and media reports on the safety of rhinoplasty. The study also found no statistically significant differences between patients who were influenced by social media to undergo cosmetic rhinoplasty and those who were not, in terms of the types of social media platforms used, the extent to which they relied on social media information on rhinoplasty or the beliefs in the advertisements for the surgery. This sheds light on how men and women in our region use social media to make decisions. Social media may significantly encourage people to get rhinoplasty, but other factors, such as nasal deformity, could be more influential. Social media's role in the decision to have rhinoplasty was not directly through the information provided, but somewhat indirectly through the updates on news about famous people⁷. This was especially true for those who relied on social media as their primary news source⁷.

PATIENT SATISFACTION IN RHINOPLASTY AND SOCIAL MEDIA

The success of a cosmetic clinic relies heavily on social media, especially online physician reviews³²⁻³⁴. In order to avoid legal action and/or minimize reputational harm, Nathan et al.³⁵ suggested following up with patients who submit inadequate internet evaluations.

The purpose of every plastic surgery procedure, including rhinoplasty, is the patient's happiness. One of the most popular online groups for people with plastic surgery is RealSelf (Seattle, WA), mentioned in^{36,37}. Patients who have had cosmetic surgery can rank their experience on the site as "worth it" or "not worth it" and explain their decision. Since patients can remain anonymous when entering information on the website, it lacks the inherent bias of surgeon-initiated questionnaires³².

RealSelf was used by Domanski et al.³⁶ to evaluate the "worth it" ratings for different types of cosmetic surgery. When compared to abdominoplasty (93%) and reduction mammoplasty (92%), the results for rhinoplasty (77%) were much lower. However, they did not investigate why some patients were satisfied while others were not with their rhinoplasty³⁶.

More so than with any other type of surgery, rhinoplasty requires a thorough comprehension of the patient's goals and anxieties to succeed³⁸. The motivation behind the rhinoplasty procedure is a crucial information to have. Preoperatively, the patient must be given accurate information about what rhinoplasty can and cannot do. This is why before undergoing rhinoplasty surgery, many authors^{32,39} advise seeing the patient at least twice.

Male rhinoplasty patients were more likely to be dissatisfied than their female counterparts. This matches up with what has been found in the past. Male rhinoplasty patients were reported by Slator et al. to be sadder and more unsatisfied with their results than their female counterparts^{32,40}.

It was reported that most dissatisfied female patients could articulate the precise nature of their complaints. Contrarily, many disappointed male rhinoplasty patients had extremely general concerns and could not articulate the specific anatomical or physiological grounds for their disappointment. Many male patients who were unhappy said things like, "extremely angry", "wish I had a better result", or "the worst mistake of my life". This confirms what other writers have found: male rhinoplasty patients typically present with vague complaints⁴¹ and an incomplete grasp of their deformity⁴².

Predictors of rhinoplasty satisfaction and dissatisfaction have been the subject of numerous investigations. Older age and receiving treatment for depression, Hessler et al. discovered, were both significant predictors of happiness⁴³. According to research by Meyer et al.^{44,45}, factors like heavy drinking and a lack of strong social connections can predict unhappiness. The presence of body dysmorphic disorder prior to treatment was reported by Picavet et al. as a predictor of postoperative dissatisfaction⁴⁶. Those who are "single", "immature", "male", "over-expectant" and "narcissistic", according to Gorney's "SIMON" criteria^{42,47}, should not get a rhinoplasty.

CONCLUSIONS

Surgery satisfaction was lower among men than women, and men were less specific about why they were unhappy with the procedure. One-third of patients regularly looked for information about rhinoplasty on social media. More than 3% were swayed by social media ads portraying rhinoplasty as a risk-free surgical procedure, whereas fewer than a third were affected by celebrities who had rhinoplasty^{47,48} for aesthetic reasons⁷.

To sum up, we found that social media played a significant role in both the patients' ultimate decision to have rhinoplasty done and their contentment with the results.

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REFERENCES

- Gruber RP, Stepnick D. Rhinoplasty: current concepts, an issue of clinics in plastic surgery. 1st Edition. E-Book. Elsevier Health Sciences; 2010.
- Shiffman MA. History of cosmetic rhinoplasty. In: Shiffman MA, Di Giuseppe A. (eds.) Advanced aesthetic rhinoplasty. Springer, Berlin, Heidelberg; 2013, p. 133-5.
- Most SP. Trends in functional rhinoplasty. *Arch Facial Plast Surg*. 2008;10(6):410-3. DOI: 10.1001/archfaci.10.6.410.
- Walker ME, Patel A, Alcon A, Pavri S, Shah A, Ng R, et al. A 12-year analysis of the relationship between market trends and cosmetic case volume. *Plast Reconstr Surg*. 2014;134(4S-1):43-4. DOI: 10.1097/01.prs.0000455376.21154.de.
- Markey CN, Markey PM. Correlates of young women's interest in obtaining cosmetic surgery. *Sex Roles*. 2009;61:158-66. DOI: 10.1007/s11199-009-9625-5.
- Jejurikar SS, Rovak JM, Kuzon WM Jr, Chung KC, Kotsis SV, Cederna PS. Evaluation of plastic surgery information on the Internet. *Ann Plast Surg*. 2002;49(5):460-5. DOI: 10.1097/00000637-200211000-00003.
- Alghamdi W, Qobty A, Al amri D. Effect of social media on decision to undergo rhinoplasty. *Glob J Otolaryngol*. 2020;22(4):556094. DOI: 10.19080/GJO.2020.22.556094.
- Montemurro P, Porcnik A, Hedén P, Otte M. The influence of social media and easily accessible online information on the aesthetic plastic surgery practice: literature review and our own experience. *Aesthetic Plast Surg*. 2015;39(2):270-7. DOI: 10.1007/s00266-015-0454-3.
- Greenwood S, Perrin A, Duggan M. Social media update 2016. Pew Research Center. 2016;11:1-18. Available from: https://assets.pewresearch.org/wp-content/uploads/sites/14/2016/11/10132827/PI_2016.11.11_Social-Media-Update_FINAL.pdf.
- Lee PB, Miano DI, Sesselmann M, Johnson J, Chung MT, Abboud M, et al. RealSelf social media analysis of rhinoplasty patient reviews. *J Plast Reconstr Aesthet Surg*. 2022;75(7):2368-74. DOI: 10.1016/j.bjps.2022.02.060.
- Allen KA, Ryan T, Gray DL, McInerney DM, Waters L. Social media use and social connectedness in adolescents: The positives and the potential pitfalls. *Australian Educational and Developmental Psychologist*. 2014;31(1):18-31. DOI: 10.1017/edp.2014.2.
- von Muhlen M, Ohno-Machado L. Reviewing Social Media use by clinicians. *J Am Med Inform Assoc*. 2012;19(5):777-81. DOI: 10.1136/amiajnl-2012-000990.
- Öztürk G, Beyazyüz E, Albayrak Y. Social media addiction among women who underwent cosmetic breast augmentation surgery. *Adicta: The Turkish Journal on Addictions*. 2012;8(2):46-50.
- Sheldon P, Bryant K. Instagram: motives for its use and relationship to narcissism and contextual age. *Computers in Human Behavior*. 2016;58:89-97. DOI: 10.1016/j.chb.2015.12.059.
- Kuss DJ, Griffiths MD. Social networking sites and addiction: ten lessons learned. *Int J Environ Res Public Health*. 2017;14(3):311. DOI: 10.3390/ijerph14030311.
- Brevers D, Turel O. Strategies for self-controlling Social Media use: Classification and role in preventing social media addiction symptoms. *J Behav Addict*. 2019;8(3):554-63. DOI: 10.1556/2006.8.2019.49.
- Özgür E, Muluk NB, Cingi C. Is selfie a new cause of increasing rhinoplasties? *Facial Plastic Surg*. 2017;33(4):423-7. DOI: 10.1055/s-0037-1603781.
- Sajjadian A, Guyuron B. Primary rhinoplasty. *Aesthet Surg J*. 2010;30(4):527-39; quiz 540. DOI: 10.1177/1090820X10380388.
- Ünal-Aydın P, Balıkcı K, Sönmez İ, Aydın O. Associations between emotion recognition and social networking site addiction. *Psychiatry Res*. 2020;284:112673. DOI: 10.1016/j.psychres.2019.112673.
- Fichman M, Piedra Buena IT. Rhinoplasty. In: StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing; 2023.
- American Society of Plastic Surgeons. 2018 Plastic Surgery Statistics Report; 2019. Available from: <https://www.plasticsurgery.org/Documents/News/Statistics/2018/Plastic-Surgery-Statistics-Full-Report-2018.Pdf>. Accessed March 12, 2023.
- Reham A, Ahmed A, Lulwah A, Tawil L, Alrajeh A, Mohammed A. The reasons behind the trend of facial plastic surgery in Saudi Arabia. *Sch J Otolaryngol*. 2019;1(4):93-8. DOI: 10.32474/SJO.2019.01.000121.
- De Vries DA, Peter J, Nikken P, de Graaf H. The effect of social network site use on appearance investment and desire for cosmetic surgery among adolescent boys and girls. *Sex Roles*. 2014;71:283-95. DOI: 10.1007/s11199-014-0412-6.
- Obeid FM, Mortada H, Alsulaiman M, Faisal AlSajwi G. The use of social media and its influence on undergoing rhinoplasty. *Plast Reconstr Surg Glob Open*. 2022;10(6):e4375. DOI: 10.1097/GOX.0000000000004375.
- Aldosari BF, Alkarzae M, Almuhaya R, Aldahhri R, Alrashid H. Effect of media on facial plastic surgery in Saudi Arabia. *Cureus*. 2019;11(11):e6232. DOI: 10.7759/cureus.6232.
- Furnham A, Levitas J. Factors that motivate people to undergo cosmetic surgery. *Can J Plast Surg*. 2012;20(4):e47-e50.
- Arab K, Barasain O, Altaweel A, Alkhayyal J, Alshiha L, Barasain R, et al. Influence of social media on the decision to undergo a cosmetic procedure. *Plast Reconstr Surg Glob Open*. 2019;7(8):e2333. DOI: 10.1097/GOX.0000000000002333.
- Akar E, Topçu B. An examination of the factors influencing consumers' attitudes toward social media marketing. *J Internet Commer*. 2011;10(1):35-67. DOI: 10.1080/15332861.2011.558456.
- Rehman FU, Ilyas M, Nawaz T, Hyder S. How Facebook advertising affects buying behavior of young consumers: The moderating role of gender. *Acad Res Int*. 2014;5:395-404.
- Tiggemann M, McGill B. The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *J Soc Clin Psychol*. 2004;23(1):23-44. DOI: 10.1521/jscp.23.1.23.26991.
- Vardanian AJ, Kusnezov N, Im DD, Lee JC, Jarrahy R. Social media use and impact on plastic surgery practice. *Plast Reconstr Surg*. 2013;131(5):1184-93. DOI: 10.1097/PRS.0b013e318287a072.
- Khansa I, Khansa L, Pearson GD. Patient satisfaction after rhinoplasty: A social media analysis. *Aesthet Surg J*. 2016;36(1):NP1-5. DOI: 10.1093/asj/sjv095.

33. Mueller MA, Glassett TS, Burke SM, Nichter LS. Protecting a plastic surgeon's reputation: damage control for dishonest online reviews. *Plast Reconstr Surg.* 2013;131(4):670e-671e. DOI: 10.1097/PRS.0b013e318282792a.
34. Israel JS, Mandel BA, Bentz ML, Afifi AM. Tweeting all surgeons: update your Facebook status, enhance your reputation, and 'pin' your practice on the wild, wild web. *Plast Reconstr Surg.* 2013;131(5):865e-868e. DOI: 10.1097/PRS.0b013e318287a14f.
35. Nathan B, Nathan M, Mascarenhas L. Analysis of formal complaints in 1840 consecutive primary breast augmentations. *Plast Reconstr Surg.* 2013;132(5):883e-884e. DOI: 10.1097/PRS.0b013e3182a4c65a.
36. Domanski MC, Cavale N. Self-reported "worth it" rating of aesthetic surgery in social media. *Aesthetic Plast Surg.* 2012;36(6):1292-5. DOI: 10.1007/s00266-012-9977-z.
37. RealSelf. <http://www.realself.com>. Accessed July 6, 2023.
38. Chauhan N, Alexander AJ, Sepehr A, Adamson PA. Patient complaints with primary versus revision rhinoplasty: analysis and practice implications. *Aesthetic Surg J.* 2011;31(7):775-80. DOI: 10.1177/1090820X11417427.
39. Rohrich RJ. Mirror, mirror on the wall: when the postoperative reflection does not meet patients' expectations. *Plast Reconstr Surg.* 2021;148(55):15S-17S. DOI: 10.1097/01.prs.0000794780.52391.ca.
40. Slator R, Harris DL. Are rhinoplasty patients potentially mad? *Br J Plast Surg.* 1992;45(4):307-10. DOI: 10.1016/0007-1226(92)90058-6.
41. Rohrich RJ, Janis JE, Kenkel JM. Male rhinoplasty. *Plast Reconstr Surg.* 2003;112(4):1071-85; quiz 1086. DOI: 10.1097/01.PRS.0000076201.75278.BB.
42. Gorney M, Martello J. Patient selection criteria. *Clin Plast Surg.* 1999;26(1):37-40, vi.
43. Hessler JL, Moyer CA, Kim JC, Baker SR, Moyer JS. Predictors of satisfaction with facial plastic surgery: results of a prospective study. *Arch Facial Plast Surg.* 2010;12(3):192-6. DOI: 10.1001/archfacial.2009.69.
44. Meyer L, Jacobsson S. Psychiatric and psychosocial characteristics of patients accepted for rhinoplasty. *Ann Plast Surg.* 1987;19(2):117-30. DOI: 10.1097/0000637-198708000-00003.
45. Meyer L, Jacobsson S. The predictive validity of psycho-social factors for patients' acceptance of rhinoplasty. *Ann Plast Surg.* 1986;17(6):513-20. DOI: 10.1097/0000637-198612000-00013.
46. Picavet VA, Gabriels L, Grietens J, Jorissen M, Prokopakis EP, Helings PW. Preoperative symptoms of body dysmorphic disorder determine postoperative satisfaction and quality of life in aesthetic rhinoplasty. *Plast Reconstr Surg.* 2013;131(4):861-8. DOI: 10.1097/PRS.0b013e3182818f02.
47. Zojaji R, Arshadi HR, Keshavarz M, Farsibaf MM, Golzari F, Khorashadizadeh M. Personality characteristics of patients seeking cosmetic rhinoplasty. *Aesthetic Plast Surg.* 2014;38(6):1090-3. DOI: 10.1007/s00266-014-0420-7.



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