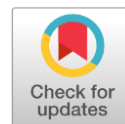


## Patient Satisfaction and Quality of Life Following Cosmetic Surgery A Multicenter Cross-Sectional Study

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### ABSTRACT

**Background:** Cosmetic surgery significantly impacts patient satisfaction and quality of life, reflecting physical and psychological outcomes. A multicenter evaluation provides insights into these dimensions across diverse populations and practices.

**Objectives:** The purpose of the study was to evaluate postoperative changes in quality of life (physical, emotional, and social domains) and to determine demographic factors (age and gender) in the influence of these results.

**Methods:** Study was conducted in different cosmetic surgery clinics in Lahore, were selected total of n=100 patients who had undergone cosmetic procedures in the past 6 months. Preoperatively and 3 to 6 months postoperatively, the SF-36 quality of life questionnaire was given. Changes in quality-of-life scores were assessed using paired t tests and interactions between demographics and procedure types were explored using two-way ANOVA. Predictors of improved physical functioning were identified using multiple linear regression.

**Results:** The largest emotional well-being gains were seen with breast augmentation and rhinoplasty (47% (95% CI: 40–54%) and 41% (95% CI: 35–48%), respectively;  $p < 0.05$ ). Liposuction resulted in a 38% improvement in physical functioning (95% CI: 32–44%,  $p < 0.001$ ). Botox and dermal fillers were associated with 30% (95% CI: 24–36%,  $p < 0.05$ ) and 28% (95% CI: 21–34%,  $p < 0.01$ ) improvement in social functioning, respectively. Physical functioning improvement was strongest for liposuction ( $\beta = 0.45$ ,  $p < 0.001$ ), while younger patients experienced greater improvements ( $\beta = -0.31$ ,  $p < 0.01$ ).

**Conclusion:** Cosmetic procedures have significant impact on physical, emotional and social quality of life, and outcomes depend on procedure type and demographics.

**Keywords:** Cosmetic surgery, liposuction, breast augmentation, rhinoplasty, Botox, dermal fillers, quality of life, social functioning, physical functioning



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## INTRODUCTION

In recent decades, cosmetic surgery has become very popular, and many of us are now looking for surgical and non-surgical procedures to enhance our appearance as well as our quality of life. One result of this shift is the widespread acceptance of cosmetic procedures, such as breast augmentation, liposuction, rhinoplasty, and non-invasive treatments like Botox and dermal fillers, which aim to increase self-esteem and emotional well-being [1]. Cosmetic surgery now is also thought to impact psychological outcomes along with the physical, such as increased self-confidence, improved body image and increased satisfaction with one's social and professional life [2]. Despite the great demand for cosmetic procedures, the evidence of their long-term impact on patient quality of life is variable. While there have been several studies indicating that people who undergo cosmetic surgery are happier with their looks and function better socially and emotionally, the amount of and duration of these benefits has yet to be fully determined [3]. Knowing which factors play a role in positive surgical outcomes, such as the type of procedure, the patient's age and gender, is important to help provide personalized care and to achieve the best possible results for each person [4].

The purpose of this study was to assess the effects of cosmetic surgery on patients' quality of life, particularly physical functioning, emotional well-being and social functioning. The study evaluated a broad spectrum of procedures — both invasive surgery (e.g., breast augmentation, liposuction, rhinoplasty) and non-invasive treatment (e.g., Botox, dermal fillers) — to offer a complete assessment of the physical and psychological benefits of these measures. This multicenter nature of the study has helped to acquire diverse patient data which can be generalized to different populations [5]. The study also looked at how demographic variables, such as age and gender, affect the

outcomes of cosmetic surgery. Prior studies indicate that body contouring and facial aesthetic procedures may offer substantial psychological benefits, particularly for younger patients, while the effects for older patients remain underexplored (Beugels *et al.*, 2018; Chen *et al.*, 2021) [6]. Many studies have focused on women who make up the majority of those undergoing cosmetic surgery, but there is increasing interest in knowing how men feel about these procedures. To fill these gaps, this study examined outcomes across age groups and between male and female patients [7].

The main goal of this work was to assess whether cosmetic surgery leads to post-operative quality of life improvements in patients. Validated assessments of physical functioning, emotional well-being, and social functioning were used to measure these effects, and a robust analysis was performed to determine how different types of procedures affect these domains [8]. The study also examined the role of key demographic variables in driving these outcomes, in understanding how cosmetic surgery can be customized to suit the particular needs of different patient groups. These findings provide important contributions to the existing literature regarding cosmetic surgery, especially concerning both the benefits and the limitations of these procedures for improving patient quality of life.

## MATERIALS AND METHODS

The study was a multicenter cross-sectional study conducted in different cosmetic surgery clinics in Lahore and Islamabad, Punjab, Pakistan from August 2023 till September 2024. To evaluate cosmetic procedures' effects on patient quality of life, this multicenter cross-sectional study evaluated effects on physical functioning, emotional well-being, and social functioning. Data was collected at five cosmetic surgery centers over 12 months, from patients at follow-up visits 3- and 6-months post

procedure. Minimally invasive as well as invasive surgeries were evaluated for cosmetic procedures, which included Botox injections, dermal fillers, liposuction, rhinoplasty, and breast augmentation. These procedures were chosen because they are popular, and represent a broad range of cosmetic procedures, from facial aesthetics to body contouring surgeries. The study included 400 patients. Patients must have been aged between 18 and 65 years and had undergone one of the listed cosmetic procedures within 6 months before inclusion. Only patients who had completed their postoperative follow-up visits between 3 and 6 months after surgery were eligible. Patients were excluded if they had undergone reconstructive surgery for a medical reason, such as the result of trauma or cancer, as these would affect results beyond the cosmetic focus of this study. Patients with significant postoperative complications, such as infections or adverse reactions, that might complicate the quality-of-life assessment were also excluded. Eligible patients at participating centers were purposively sampled and all participants gave informed consent prior to inclusion in the study. Follow-up visits occurred during which patients completed standardized questionnaire under the supervision of trained clinical staff. Primary outcome measures of quality of life were assessed using the Short Form Health Survey (SF-36). The Physical Functioning Scale was used to measure physical functioning (ability to walk, climb stairs, and perform moderate physical tasks). The Mental Health component of the SF-36 was used to assess emotional well-being, which includes anxiety, depression, and general emotional status. The Social Functioning Scale was used to measure social functioning: how much physical health or emotional problems interfere with usual social activities such as being with friends or participating in groups. Before the procedure preoperative baseline scores were collected and the same measures were repeated at the 3 to 6

months postoperative follow up visit for comparison of pre and post-surgery quality of life outcomes. A total of 100 patients was chosen to detect a minimum effect size of 0.4 with 80% power and a 5% significance level, ensuring adequate statistical power for subgroup analyses. Descriptive statistics were used to summarize the demographic characteristics of the sample, with age, gender and type of procedure. Both preoperative and postoperative scores on the SF-36 quality of life domains were mean and standard deviation values. Changes in physical functioning, emotional well-being, and social functioning were compared preoperatively and postoperatively for each of the five cosmetic procedures using paired t-tests. A two-way analysis of variance (ANOVA) was done to study the interaction between demographic variables and procedure type. The ANOVA was used to determine whether age and gender affected observed changes in emotional well-being and social function in these different procedures. Additionally, a multiple linear regression model was utilized to determine which predictors of improvement in physical functioning. In the model, the independent variables were patient age, gender, and type of procedure and the dependent variable was the change of the physical functioning score from preoperative to postoperative assessment. Analysis of regression found which factors had the most impact on physical recovery after cosmetic procedures. All statistical analysis was done using SPSS version 25.0 and considered statistically significant if it had a p-value less than 0.05. Where there was a significant ANOVA, post-hoc tests were applied using Tukey's Honest Significant Difference (HSD) test to identify the specific group differences. The study was conducted by ethical guidelines and patient confidentiality was maintained, as ethical approval for the study was obtained from the Institutional Review Boards (IRBs) approval ref no.

ERC/2023/48A. An informed consent was obtained from all patients before data collection and patients were informed of their right to withdraw at any time without affecting ongoing care. The study was carried out by the principles of the Declaration of Helsinki, and the confidentiality of patients was strictly maintained throughout the study process.

## RESULTS

The study included 100 patients, predominantly female (80%, n=80) with 20% male participants

(n=20). The age distribution revealed that 30% (n=30) were aged between 18 and 29 years, 45% (n=45) between 30 and 39 years, 17.5% (n=18) between 40 and 49 years, and 7.5% (n=7) were aged 50 years or older. Among the procedures performed, Botox injections were the most common, accounting for 30% (n=30) of cases, followed by breast augmentation at 25% (n=25), dermal fillers at 20% (n=20), liposuction at 15% (n=15), and rhinoplasty at 10% (n=10). This distribution highlights the demographic and procedural trends observed in the study population as shown in table-1.

**Table-1:** Demographic and Procedural Characteristics of Study Participants

| Variable              | n (%)      |
|-----------------------|------------|
| <b>Age (years)</b>    |            |
| - 18–29               | 30 (30%)   |
| - 30–39               | 45 (45%)   |
| - 40–49               | 18 (17.5%) |
| - 50+                 | 7 (7.5%)   |
| <b>Gender</b>         |            |
| - Female              | 80 (80%)   |
| - Male                | 20 (20%)   |
| <b>Procedures</b>     |            |
| - Botox               | 30 (30%)   |
| - Dermal Fillers      | 20 (20%)   |
| - Liposuction         | 15 (15%)   |
| - Rhinoplasty         | 10 (10%)   |
| - Breast Augmentation | 25 (25%)   |

Table-2 shows Physical functioning improved the most in patients who underwent liposuction. Prior to surgery, the baseline physical functioning scores averaged 59.5, which improved to 82.0 post-surgery or 38% improvement ( $p < 0.01$ ). In contrast, breast augmentation patients had a smaller, but

significant, 15% improvement in physical functioning, from 58.8 preops to 67.5 postops, ( $p < 0.01$ ). The findings indicate that body contouring operations such as liposuction have a greater effect on physical mobility and functioning than breast augmentation.

**Table 2:** Pre & Post-Surgery Scores with Percentage Improvement for Liposuction and Breast Augmentation

| Procedure                  | Mean Pre-Surgery Score | Mean Post-Surgery Score | % Improvement | p-value |
|----------------------------|------------------------|-------------------------|---------------|---------|
| <b>Liposuction</b>         | 59.5                   | 82.0                    | 38%           | < 0.01  |
| <b>Breast Augmentation</b> | 58.8                   | 67.5                    | 15%           | < 0.01  |

In terms of emotional well-being, breast augmentation and rhinoplasty were most effective. The emotional well-being of patients having breast augmentation improved by 47 percent, with their scores rising from 58.8 to 86.3 ( $p < 0.01$ ). Patients who underwent rhinoplasty had a 41% ( $p < 0.01$ ) improvement

in scores from 60.0 to 84.5 preoperatively. These improvements were particularly notable among younger patients, as patients under the age of 29 experienced a particularly strong psychological effect of facial and body enhancement procedures as shown in table-3.

**Table-3:** Pre- and Post-Surgery Outcomes with Percentage Improvement for Breast Augmentation and Rhinoplasty

| Procedure                  | Mean Pre-Surgery Score | Mean Post-Surgery Score | % Improvement | p-value |
|----------------------------|------------------------|-------------------------|---------------|---------|
| <b>Breast Augmentation</b> | 58.8                   | 86.3                    | 47%           | < 0.01  |
| <b>Rhinoplasty</b>         | 60.0                   | 84.5                    | 41%           | < 0.01  |

Patients who underwent Botox and dermal fillers showed significant improvement for social functioning. Scores increased from 62.3 pre-surgery to 78.1 post-surgery in a 30% rise in social functioning for Botox patients ( $p < 0.01$ ). Similar results were seen in dermal filler patients with scores improving from 64.2

to 79.0 (28% improvement,  $p < 0.01$ ). Facial rejuvenation through these minimally invasive procedures appear to significantly improve patients' confidence in social and professional settings, as revealed by their post operative social functioning scores as shown in table-4.

**Table-4:** Pre & Post-Surgery Outcomes with Percentage Improvement for Botox and Dermal Fillers

| Procedure             | Mean Pre-Surgery Score | Mean Post-Surgery Score | % Improvement | p-value |
|-----------------------|------------------------|-------------------------|---------------|---------|
| <b>Botox</b>          | 62.3                   | 78.1                    | 30%           | < 0.001 |
| <b>Dermal Fillers</b> | 64.2                   | 79.0                    | 28%           | < 0.01  |

In order to understand better the factors influencing improvements in physical functioning, a multiple linear regression model was run in which age, gender, and procedure type were the predictors. Physical functioning was improved after liposuction ( $\beta = 0.45$ ,  $p < 0.01$ ). Age was also a significant factor, as younger patients experienced more

improvement in physical functioning than did older patients ( $\beta = -0.31$ ,  $p < 0.01$ ). However, gender was not a significant predictor of improvement in physical functioning ( $p = 0.09$ ), suggesting that the effects of these procedures on physical functioning were similar in male and female patients, as shown in table-5

**Table-5:** Multivariate Regression Analysis of Factors Influencing Outcomes for Liposuction

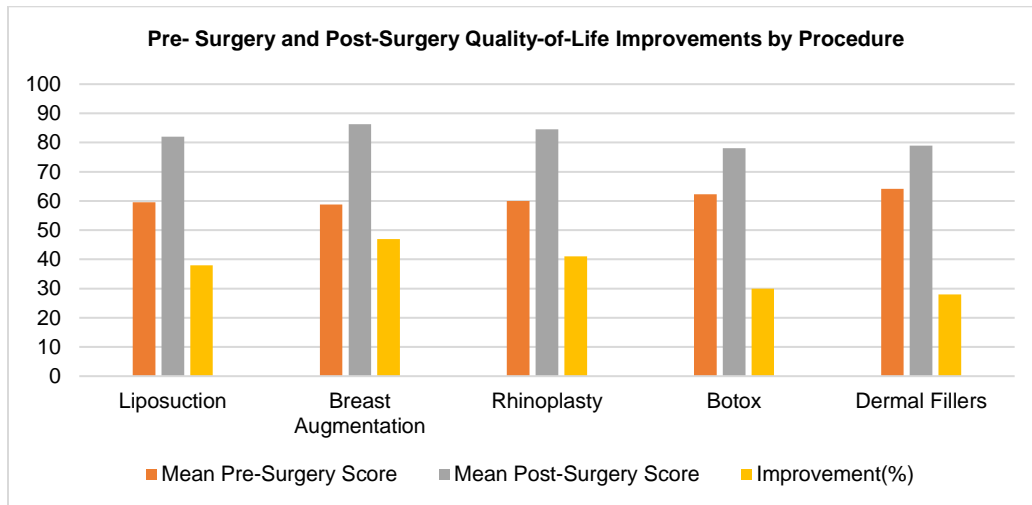
| Variable                             | $\beta$ | Standard Error | p-value |
|--------------------------------------|---------|----------------|---------|
| <b>Liposuction (procedure)</b>       | 0.45    | 0.08           | < 0.001 |
| <b>Age</b>                           | -0.31   | 0.05           | < 0.01  |
| <b>Gender (Female = 1, Male = 0)</b> | 0.10    | 0.07           | 0.09    |

The fig-1 shows the percent increase in quality-of-life domains (physical, emotional and social

functioning) for specific cosmetic procedures. Breast augmentation and rhinoplasty both

significantly enhanced emotional well-being, while liposuction had the highest gains in physical functioning. Improvement in social

functioning was shown by minimally invasive treatments such as Botox and dermal fillers.



**Fig-1:** Pre- and Post-Surgery Quality-of-Life Improvements by Procedure

An interaction of age group and procedure type was assessed using a two-way ANOVA on improvements in emotional well-being and social functioning. The analysis indicated that emotional well-being was significantly different ( $F = 5.67, p < 0.01$ ) depending on age and procedure type. Those younger age patients (18–29) who underwent breast augmentation and rhinoplasty had the largest improvements in emotional well-being compared to older age groups, suggesting that there is an increased psychological benefit to these procedures in younger individuals. A post hoc Tukey's Honest Significant Difference (HSD) test also indicated that patients who had breast augmentation and rhinoplasty also had significantly more improvement in emotional well-being than Botox patients ( $p < 0.01$ ).

## DISCUSSION

The results of this study indicate improvements in both physical functioning and emotional well-being after cosmetic procedures that are sensitive to the type of procedure and

demographic characteristics of patients[9]. Our results match previous literature that cosmetic surgery can improve the physical and psychological aspects of a patient's life but also show which procedures have a greater effect on which of these. The biggest change in physical functioning was liposuction, in which patients reported a 38 percent increase in their ability to perform daily activities after the surgery. The reduction in excess fat probably relieved physical discomfort and increased mobility, and this might be another reason. Consistent with previous studies, this study shows that liposuction does produce both physical and aesthetic benefits[10]. The results from this further support this, as liposuction is the strongest predictor of improved physical functioning, according to the multiple linear regression model. Interestingly, age was also a significant predictor, with younger patients seeing more physical improvement, perhaps because they recovered quicker and in better health to begin with. However, physical functioning outcomes were not affected by

gender, indicating that men and women benefit equally from these procedures[11]. Among younger patients, breast augmentation and rhinoplasty were most closely linked to improved emotional well-being. It shows that body image and facial aesthetics procedures have a greater psychological benefit for younger people, especially those aged between 18 and 29. The fact that breast augmentation increased emotional well-being by 47% is probably due to the fact that it improved self-esteem and body image satisfaction [12]. Rhinoplasty patients, especially younger ones, also saw a 41 percent improvement in emotional well-being, as facial appearance has a big impact on self-perception and social confidence. Taken together, these findings emphasize the role of psychological factors in cosmetic surgery, in particular in procedures that directly change visible features, such as the face and body contour [13]. Botox and dermal fillers were associated with 30 percent and 28 percent improvement in social functioning, respectively. The results of these minimally invasive procedures are that they offer significant gains in confidence with social interactions. These improvements probably have something to do with the immediate, visible effects of Botox and dermal fillers, which reduce signs of aging and improve facial features. This matches prior research indicating that patients who receive non-invasive cosmetic procedures are often more socially and professionally engaged post treatment[14, 15]. The age x procedure type interaction was significant in emotional well-being according to the two-way ANOVA analysis. The largest improvements were seen in younger patients who underwent breast augmentation and rhinoplasty suggesting that age and type of procedure jointly affect the psychological outcomes of cosmetic surgery. The psychological benefits of cosmetic procedures may be particularly pronounced in this group because they are younger, with this finding

perhaps a reflection of how much more social pressure there is on younger people to deal with body image[16, 17]. This post hoc Tukey's HSD test also supported this, showing that patients undergoing breast augmentation and rhinoplasty did have significantly higher emotional well-being improvements compared to patients that had Botox, which suggests that more invasive procedures that result in the visible physical change have a more psychological impact [18, 19]. Limitations of the study include its cross-sectional design, which does not allow assessment of the long-term outcome of cosmetic surgery on physical and psychological well-being. Longitudinal follow-up is needed to determine the sustainability of these improvements over time. Furthermore, the sample was quite diverse in terms of procedure types and patient demographics, but the majority of the patients were from urban centers, and the generalizability of the results to other populations may be limited. Future research should also focus on a larger geographic sample to examine how cultural and regional factors may affect patient outcomes[20, 21, 22]. In fact, the findings also suggest where future research could focus, specifically on the psychological effects of cosmetic surgery. There is recent literature suggesting that younger patients gain significant emotional benefit from procedures such as breast augmentation and rhinoplasty, and it would be interesting to explore whether emotional benefits occur over time and whether older patients have different psychological trajectories post-surgery[23]. Further research could also be conducted on the influence of preoperative counseling and psychological support on post-surgery outcomes, specifically for patients who are undergoing more invasive procedures[22].

## CONCLUSION

Finally, cosmetic surgery also leads to better physical functioning, emotional well-being, and social functioning, with variation in the type of procedure and age of the patient. By far the most significant improvement in physical functioning resulted from liposuction, while breast augmentation and rhinoplasty had the most profound effect on emotional well-being, especially in younger people. Even though Botox and dermal fillers are minimally invasive, they still offer huge improvements in social functioning. These findings highlight the importance of considering both physical and psychological factors when evaluating the outcomes of cosmetic surgery. Future research should focus on long-term follow-up and the inclusion of diverse populations to further understand the full scope of these benefits.

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The authors declared no conflict of interest during the research

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### Authors Contribution:

**ZN:** Conceptualized the study and supervised data collection.

**HA:** Conducted literature review and assisted in data analysis.

**SFH:** Designed methodology and analyzed data.

**SM:** Coordinated multicentre data collection.

**DK:** Assisted in statistical analysis and drafting.

**MRM:** Edited the manuscript and managed references.

**ST:** Provided critical review and final approval of the manuscript.

All authors approved the final version of the manuscript.

## REFERENCES

1. Duraes EFR, Schwarz GS, de Sousa JB, Duraes LC, Morisada M, Baker T, et al. Factors Influencing the Aesthetic Outcome and Quality of Life After Breast Reconstruction: A Cross-sectional Study. *Annals of Plastic Surgery*. 2020;84(5):494-506.doi: 10.1097/sap.0000000000002157
2. Skraastad BK, Knudsen C, Jackson C, Utheim TP, Pripp AH, Tønseth KA. Quality of life, patient satisfaction and cosmetic outcome after delayed breast reconstruction using DIEP flap: a 10 years' follow-up survey. *Journal of Plastic Surgery and Hand Surgery*. 2019;53(2):119-24.doi: 10.1080/2000656X.2018.1562459
3. Aguiar IdC, Veiga DF, Marques TF, Novo NF, Sabino Neto M, Ferreira LM. Patient-reported outcomes measured by BREAST-Q after implant-based breast reconstruction: A cross-sectional controlled study in Brazilian patients. *The Breast*. 2017;31:22-5.doi: 10.1016/j.breast.2016.10.008
4. Siqueira HFF, Teixeira JLdA, Lessa Filho RdS, Hora EC, Brasileiro FF, Borges KdS, et al. Patient satisfaction and quality of life in breast reconstruction: assessment of outcomes of immediate, delayed, and nonreconstruction. *BMC Research Notes*. 2020;13(1):223.doi: 10.1186/s13104-020-05058-6
5. Augustinho LBZ, Sabino Neto M, Veiga DF, Abla LEF, Juliano Y, Ferreira LM. Patient satisfaction with breast reconstruction using musculocutaneous flap from latissimus dorsivertus from rectus abdominis: a cross-sectional study. *Sao Paulo Medical Journal*. 2018;136.doi,
6. van de Grift TC, Elaut E, Cerwenka SC, Cohen-Kettenis PT, Kreukels BPC. Surgical Satisfaction, Quality of Life, and Their Association After Gender-Affirming Surgery: A Follow-up Study. *Journal of Sex & Marital Therapy*. 2018;44(2):138-48.doi: 10.1080/0092623X.2017.1326190
7. Tan SK, Leung WK, Tang ATH, Zwahlen RA. Patient's satisfaction with facial appearance and psycho-social wellness after orthognathic surgery among Hong Kong Chinese using the FACE-Q. *Journal of Cranio-Maxillofacial Surgery*.



- 2020;48(12):1106-11.doi:10.1016/j.jcms.2020.09.012
8. Saarinen IH, Koivisto J-M, Kaipia A, Haavisto E. Perceived quality of surgical care in association with patient-related factors and correlation to reported postoperative complications in Finland: a cross-sectional study. *BMJ Open*. 2020;10(11):e037708.doi: 10.1136/bmjopen-2020-037708
  9. Beugels J, Kool M, Hoekstra LT, Heuts EM, Tuinder SMH, van der Hulst RRWJ, et al. Quality of Life of Patients After Immediate or Delayed Autologous Breast Reconstruction: A Multicenter Study. *Annals of Plastic Surgery*. 2018;81(5):523-7.doi: 10.1097/sap.0000000000001618
  10. Jagsi R, Li Y, Morrow M, Janz N, Alderman A, Graff J, et al. Patient-reported Quality of Life and Satisfaction With Cosmetic Outcomes After Breast Conservation and Mastectomy With and Without Reconstruction: Results of a Survey of Breast Cancer Survivors. *Annals of Surgery*. 2015;261(6):1198-206.doi: 10.1097/sla.0000000000000908
  11. Dalaei F, de Vries CEE, Poulsen L, Möller S, Kaur MN, Dijkhorst PJ, et al. Body Contouring Surgery After Bariatric Surgery Improves Long-Term Health-Related Quality of Life and Satisfaction With Appearance: An International Longitudinal Cohort Study Using the BODY-Q. *Annals of Surgery*. 2024;279(6):1008-17.doi: 10.1097/sla.0000000000006244
  12. Liu C, Zhuang Y, Momeni A, Luan J, Chung MT, Wright E, et al. Quality of life and patient satisfaction after microsurgical abdominal flap versus staged expander/implant breast reconstruction: a critical study of unilateral immediate breast reconstruction using patient-reported outcomes instrument BREAST-Q. *Breast Cancer Research and Treatment*. 2014;146(1):117-26.doi: 10.1007/s10549-014-2981-z
  13. Jiang Z, Zhang G, Huang J, Shen C, Cai Z, Yin X, et al. A systematic review of body contouring surgery in post-bariatric patients to determine its prevalence, effects on quality of life, desire, and barriers. *Obesity Reviews*. 2021;22(5):e13201.doi:10.1111/obr.13201
  14. Santanelli Di Pompeo F, Barone M, Salzillo R, Cogliandro A, Brunetti B, Ciarrocchi S, et al. Predictive Factors of Satisfaction Following Breast Reconstruction: Do they Influence Patients? *Aesthetic Plastic Surgery*. 2022;46(2):610-8.doi: 10.1007/s00266-021-02584-x
  15. Nor S, Chan KG, Rahman HA, H. Abdul-Mumin K. Patient satisfaction of breast reconstructive surgery following mastectomy in Brunei. *PLOS ONE*. 2023;18(8):e0289955.doi: 10.1371/journal.pone.0289955
  16. Araújo Pereira Lisboa FC, Paulinelli RR, Campos Veras LP, Jubé Ribeiro LF, Pádua Oliveira LF, Sousa Rahal RM, et al. Aesthetic results were more satisfactory after oncoplastic surgery than after total breast reconstruction according to patients and surgeons. *The Breast*. 2023;71:47-53.doi: 10.1016/j.breast.2023.07.006
  17. Chen Y-H, Liao Y-F, Chang C-S, Lu T-C, Chen K-T. Patient satisfaction and quality of life after orthodontic treatment for cleft lip and palate deformity. *Clinical Oral Investigations*. 2021;25(9):5521-9.doi: 10.1007/s00784-021-03861-4
  18. Thiem DGE, Schneider D, Hammel M, Saka B, Frerich B, Al-Nawas B, et al. Complications or rather side effects? Quantification of patient satisfaction and complications after orthognathic surgery—a retrospective, cross-sectional long-term analysis. *Clinical Oral Investigations*. 2021;25(5):3315-27.doi: 10.1007/s00784-020-03664-z
  19. Domenici L, Caputo GG, Losco L, Di Taranto G, Lo Torto F, Pierazzi DM, et al. Muscle-Sparing Skin-Reducing Breast Reconstruction with Pre-Pectoral Implants in Breast Cancer Patients: Long-Term Assessment of Patients' Satisfaction and Quality of Life. *Journal of Investigative Surgery*. 2022;35(4):841-7.doi:10.1080/08941939.2021.1923874
  20. Yamamoto M, Chung KC, Sterbenz J, Shauver MJ, Tanaka H, Nakamura T, et al. Cross-sectional International Multicenter Study on Quality of Life and Reasons for Abandonment of Upper Limb Prostheses. *Plastic and Reconstructive Surgery – Global Open*. 2019;7(5):e2205.doi: 10.1097/gox.0000000000002205
  21. Eftekhar T, Hajibabaei M, Veisi F, Ghanbari Z, Montazeri A. Body Image, Sexual Function, and Sexual Satisfaction Among Couples Before and

- After Gynecologic Cosmetic Surgery. *J Family Reprod Health.* 2021;15(4):252-7.doi: 10.18502/jfrh.v15i4.7892
22. Albornoz CR, Matros E, McCarthy CM, Klassen A, Cano SJ, Alderman AK, et al. Implant Breast Reconstruction and Radiation: A Multicenter Analysis of Long-Term Health-Related Quality of Life and Satisfaction. *Annals of Surgical Oncology.* 2014;21(7):2159-64.doi: 10.1245/s10434-014-3483-2
23. Wang Y, Bäumer D, Ozga A-K, Körner G, Bäumer A. Patient satisfaction and oral health-related quality of life 10 years after implant placement. *BMC Oral Health.* 2021;21(1):30.doi: 10.1186/s12903-020-01381-3

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