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Determinants of Severe Dissatisfaction After Septorhinoplasty: The Role of Surgical Complexity, Complications, and Expectation Mismatch

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ABSTRACT

Background: This study aimed to investigate clinical, procedural, and expectation-related factors associated with severe postoperative dissatisfaction following septorhinoplasty and to evaluate the contribution of surgical specialty.

Methods: This retrospective study included 223 adult patients referred for medico-legal evaluation because of clinically significant dissatisfaction after primary septorhinoplasty performed between 2018 and 2022. Variables included complication patterns, Surgical Complexity Score, Expectation Alignment Score, revision demand, and health care utilization indicators. A primary multivariable logistic regression model was constructed to identify factors independently associated with severe dissatisfaction; revision demand was analyzed descriptively as a postoperative marker of dissatisfaction burden.

Results: In the primary multivariable logistic regression model, combined functional–aesthetic complications (odds ratio [OR] = 2.9, 95% CI: 1.6-5.3, *P* = .001) and higher Surgical Complexity Score (OR = 1.8 per unit increase, 95% CI: 1.3-2.5, *P* = .003) were independently associated with severe dissatisfaction. Surgical specialty was not independently associated with severe dissatisfaction (OR = 1.5, 95% CI: 0.8-2.7, *P* = .12). Revision demand was frequent among patients with severe dissatisfaction but was interpreted as a marker of dissatisfaction burden rather than as an independent predictor.

Conclusion: Severe postoperative dissatisfaction following septorhinoplasty is multifactorial and is primarily associated with combined complication patterns and procedural complexity rather than surgical specialty alone. Revision demand should be interpreted as a postoperative marker of dissatisfaction burden. Identification of high-risk patients may improve preoperative counseling and optimize surgical outcomes.

Keywords: Nasal septum, patient satisfaction, postoperative complications, reoperation, rhinoplasty, treatment outcome

Introduction

Septorhinoplasty is a commonly performed procedure that aims to improve both nasal function and aesthetic appearance.[1] Despite advances in surgical techniques, postoperative dissatisfaction remains a clinically important problem and may lead to revision surgery, increased health care utilization, and patient–physician conflict.[2,3] Dissatisfaction may arise from functional impairment, aesthetic concerns, or discrepancies between patient expectations and surgical outcomes.[4,5]

Previous studies have evaluated complication rates, surgical techniques, and patient-reported outcomes following septorhinoplasty.[1,5,6] Although these studies have provided valuable insights, most have evaluated these factors separately.[7,8] In particular, the interaction between surgical complexity, complication patterns, expectation–outcome alignment, and surgical specialty has not been comprehensively evaluated.[4,9] Furthermore, patients with clinically significant dissatisfaction may represent a distinct high-risk subgroup in whom the determinants of unfavorable outcomes are more apparent.[3,10]

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Understanding the factors that drive dissatisfaction in these complex clinical cases is essential for improving surgical outcomes, optimizing patient selection, strengthening preoperative counseling, and guiding postoperative management.[4,7] In addition, dissatisfaction following aesthetic-functional procedures has broader implications, including increased revision demand and potential medico-legal consequences.[2,3,10]

Therefore, this retrospective study aimed to explore clinical, procedural, and expectation-related factors associated with severe postoperative dissatisfaction following septorhinoplasty, with particular attention to surgical complexity, complication patterns, expectation–outcome alignment, and surgical specialty.

Methods

Study Design and Population

This retrospective observational study was conducted on patients referred for formal medico-legal evaluation because of clinically significant dissatisfaction after primary septorhinoplasty. All available medical and medico-legal records were systematically reviewed, including operative reports, preoperative and postoperative clinical documentation, expert evaluation files, complication-related records, and follow-up documents when available. Patients were included only if the primary septorhinoplasty had been performed from January 1, 2018, to December 31, 2022, and if sufficient documentation was available to evaluate surgical indication, anatomical findings, surgical specialty, postoperative complaints, complications, and dissatisfaction-related outcomes. Because the patients were referred from a medico-legal evaluation pathway rather than from a single institutional surgical cohort, the total number of septorhinoplasty procedures performed during the study period could not be determined. Therefore, this study does not estimate the incidence or prevalence of postoperative dissatisfaction after septorhinoplasty. Instead, it focuses on the determinants of severe dissatisfaction within a selected medico-legal referral cohort. After systematic screening of eligible medico-legal case files, 223 adult patients met the inclusion criteria and constituted the final study cohort. Only patients with a minimum follow-up duration of 12 months were included (range, 12-50 months; mean, 23 months).

Inclusion and Exclusion Criteria

Eligible patients were aged ≥18 years and had complete medical and medico-legal documentation regarding surgical indication, anatomical findings, surgical specialty, operative details, postoperative complaints, complications, and dissatisfaction-related outcomes. Patients undergoing purely aesthetic rhinoplasty without any documented functional indication or functional nasal intervention were excluded. Functional indications were not limited to septal deviation and included nasal valve insufficiency or collapse, clinically documented nasal obstruction, and functionally relevant structural nasal deformity causing airway compromise. Patients with previous revision nasal surgery and those with incomplete follow-up data were excluded.

Main Points

- Combined functional–aesthetic complications are independently associated with severe dissatisfaction.
- Surgical complexity is independently associated with severe dissatisfaction.
- Revision demand reflects postoperative dissatisfaction burden rather than an independent predictor.
- Surgical specialty is not an independent determinant of severe dissatisfaction.

Data Collection and Variables

The following variables were extracted from medical and medico-legal case records: demographic characteristics, presenting complaints (functional, aesthetic, or combined), anatomical abnormalities, surgical specialty, operative details, and postoperative complications. Additional dissatisfaction-related variables were recorded, including requests or recommendations for revision surgery, the interval between primary surgery and complaint presentation, the number of postoperative consultations related to dissatisfaction, second-opinion consultations, and escalation to medico-legal evaluation. These variables were used as surrogate indicators of dissatisfaction burden and health care utilization.

Outcome Assessment

Postoperative outcomes were evaluated using a structured clinical assessment by a single otolaryngologist who had not been involved in the primary surgical procedures. Functional disturbances were assessed retrospectively from the available medical and medico-legal records, including postoperative clinical documentation, expert evaluation files, and follow-up documents when available. Functional complications included nasal obstruction, septal perforation, airflow irregularities, and mucosal complaints. For the main complication pattern analysis, functional disturbances were coded as present or absent and were categorized as isolated functional or combined functional–aesthetic complications. The severity of functional disturbance was not graded using objective nasal airflow measurements or validated functional questionnaires, because such data were not consistently available in the retrospective medico-legal records. Objective tests such as rhinomanometry, acoustic rhinometry, or peak nasal inspiratory flow measurement were therefore not included in the analysis. Similarly, validated patient-reported outcome measures were not available due to the retrospective design of the study. Functional severity was considered only indirectly within the exploratory Complication Severity Score, which incorporated complication type, timing of onset, and requirement for revision intervention. Aesthetic complications were evaluated based on nasal contour, dorsal profile, tip position, and overall facial harmony.

Surgical Complexity Score

The Surgical Complexity Score was constructed from operative details documented in the available operative reports. A baseline score of 1 was assigned to all primary septorhinoplasty procedures. One additional point was assigned for each of the following procedural characteristics: open surgical approach, graft utilization, osteotomy, and involvement of 3 or more anatomical subunits. Therefore, the total Surgical Complexity Score ranged from 1 to 5. Scores of 1-2 were categorized as low complexity, a score of 3 as moderate complexity, and scores of 4-5 as high complexity.

Dissatisfaction Severity Measures

Three exploratory analytical indices were constructed to enable structured evaluation of dissatisfaction patterns in the retrospective medico-legal dataset. These indices were not validated clinical instruments and were used for analytical stratification only.

The Complication Severity Score was calculated according to complication pattern, persistence, and revision relevance. Isolated functional or isolated aesthetic complications were assigned 1 point, whereas combined functional–aesthetic complications were assigned 2 points. One additional point was assigned if the complication or related complaint persisted beyond 6 months after surgery, and 1 additional point was assigned if revision surgery was requested or recommended because of the documented complication. The total score ranged from 1 to 4 and was categorized as low severity for scores of 1-2, moderate severity for a score of 3, and high severity for a score of 4.

The Dissatisfaction Severity Index was calculated using dissatisfaction-related clinical and behavioral indicators documented in the medical and medico-legal records. One point was assigned for each of the following: persistence of complaints beyond 6 months, 3 or more postoperative consultations related to dissatisfaction, documented second-opinion consultation, and escalation of care beyond routine postoperative follow-up. The total score ranged from 0 to 4. Scores of 0-1 were categorized as low dissatisfaction, a score of 2 as moderate dissatisfaction, and scores of 3-4 as high dissatisfaction.

The Expectation Alignment Score was reconstructed retrospectively from the available medical and medico-legal records and was not assessed prospectively together with the patient using a standardized questionnaire. It was defined as an ordinal 3-level variable based on the concordance between documented preoperative objectives and postoperative findings. Complete alignment was coded as 0 when the documented postoperative outcome was broadly consistent with the preoperative functional and/or aesthetic objectives. Partial mismatch was coded as 1 when the primary objective was partially achieved, but residual functional or aesthetic concerns were documented. Severe mismatch was coded as 2 when there was a major discrepancy between the documented preoperative objectives and the postoperative outcome, particularly in the presence of persistent dissatisfaction, unresolved functional or aesthetic complaints, or revision-related concern.

Severe dissatisfaction was defined as the presence of either severe expectation mismatch or a high Dissatisfaction Severity Index category.

Ethical Approval

The study protocol was approved by the Education and Scientific Research Commission of the Council of Forensic Medicine (Approval No.: 21589509/2023/143; Date: February 22, 2023). All data were anonymized, and the study was conducted in accordance with the Declaration of Helsinki. The requirement for informed consent was waived because of the retrospective design of the study and the use of anonymized data.

Statistical Analysis

Statistical analyses were performed using IBM SPSS Statistics version 25.0 (IBM Corp., Armonk, NY, USA). Continuous variables were tested for normality using the Kolmogorov–Smirnov test. Normally distributed variables are expressed as mean ± SD, whereas non-normally distributed variables were presented as median (range). Categorical variables are summarized as frequencies and percentages. Group comparisons were performed using the χ^2 test or Fisher's exact test for categorical variables and independent samples *t*-test or Mann–Whitney *U*-test for continuous variables, as appropriate. Univariate analyses were initially conducted to identify variables associated with severe dissatisfaction. Variables with $P < .1$ in univariate analysis were included in a multivariable binary logistic regression model. The primary multivariable logistic regression model included surgical specialty, complication type (isolated vs. combined functional–aesthetic complications), and Surgical Complexity Score. Revision demand was not included in the primary regression model because it was considered a downstream clinical consequence or marker of dissatisfaction burden rather than an independent pre-existing predictor. Revision demand, consultation frequency, and second-opinion consultations were therefore analyzed descriptively as postoperative dissatisfaction-related indicators. Results were reported as odds ratios (ORs) with 95% CIs. A 2-tailed *P*-value < .05 was considered statistically significant.

Results

After systematic screening of eligible medico-legal referral files, 223 patients met the inclusion criteria and were included in the final analysis. Of these, 62.8% were female (n = 140) and 37.2% were male (n = 83), with a mean age of 29.2 ± 7.9 years (range, 18-65). Surgical indications were functional in 37.7% (n = 84), aesthetic in 14.8% (n = 33), and combined functional–aesthetic in 47.5% (n = 106).

Otolaryngologists performed 65.0% of the procedures (otolaryngology [ENT], n = 145), whereas plastic and reconstructive surgeons performed 35.0% (plastic and reconstructive surgery [PRS], n = 78). Because the ENT and PRS groups differed in size, specialty-specific comparisons in Table 1 are presented as n (%) with percentages calculated within each surgical specialty group. The distribution of presenting complaints differed between specialties. Functional complaints were more common in the ENT group, whereas aesthetic complaints were more common in the PRS group. Combined functional–aesthetic complaints were frequent in both groups.

At presentation, septal deviation was documented in 93.3% of patients (n = 208) and was significantly more prevalent in the ENT cohort compared with the PRS cohort (97.9% vs. 84.6%, $P < .001$; Table 1). Among the 12 PRS patients without documented septal deviation, the functional indication was based on non-septal functional abnormalities, including nasal valve insufficiency or collapse, clinically documented nasal obstruction, and functionally relevant structural nasal deformity causing airway compromise. Therefore, these cases were not considered purely aesthetic rhinoplasty cases. Conversely, nasal deformity was more frequently documented in PRS cases

Table 1. Comparison of Clinical Characteristics by Surgical Specialty, Presented as n (%)

Characteristic		ENT (n = 145), n (%)	PRS (n = 78), n (%)	*P*
Gender	Male	64 (44.1)	19 (24.4)	**<.05**
	Female	81 (55.9)	59 (75.6)	
Complaint	Functional	67 (46.2)	17 (21.8)	**<.001**
	Aesthetic	5 (3.4)	28 (35.9)	**<.001**
	Functional + Aesthetic	73 (50.3)	33 (42.3)	.25
Septal deviation	Present	142 (97.9)	66 (84.6)	**<.001**
	Absent	3 (2.1)	12 (15.4)	
Deformity	Present	32 (22.1)	34 (43.6)	**<.01**
	Absent	113 (77.9)	44 (56.4)	
Conchal hypertrophy	Present	61 (42.1)	24 (30.8)	.09
	Absent	84 (57.9)	54 (69.2)	
Complication	Functional	31 (21.4)	13 (16.7)	.4
	Aesthetic	63 (43.4)	40 (51.3)	.26
	Functional + Aesthetic	51 (35.2)	25 (32.1)	.63

Percentages were calculated within each surgical specialty group. Bold *P*-values indicate statistically significant differences between the ENT and PRS groups ($P < .05$). In PRS patients without documented septal deviation, functional indication was based on documented non-septal functional abnormalities, including nasal valve insufficiency/collapse, clinically documented nasal obstruction, or functionally relevant structural nasal deformity causing airway compromise.
ENT, otolaryngology; PRS, plastic and reconstructive surgery; n, number of patients; P, probability.

than ENT cases (43.6% vs. 22.1%, $P < .01$; Table 1). Conchal hypertrophy was present in 38.1% of patients and did not differ significantly between specialties ($P = .09$).

Postoperative complications were categorized as isolated aesthetic in 46.2% (n = 103), isolated functional in 19.7% (n = 44), and combined functional–aesthetic in 34.1% (n = 76) (Figure 1). Aesthetic complications were more frequent in PRS cases, whereas functional complications were slightly more common in ENT cases; however, these differences were not statistically significant (Table 1). The distribution of specific complications is presented in Figure 2.

Expectation Alignment Score analysis demonstrated complete alignment in 65.5% of cases (n = 146), partial mismatch in 26.5% (n = 59), and severe mismatch in 8.1% (n = 18). Severe mismatch was significantly more frequent in PRS patients compared with ENT patients (15.4% vs. 4.1%, $P = .012$; Table 2).

According to the Complication Severity Score, 75.3% of patients were classified as low severity, 24.2% as moderate severity, and 0.4% as high severity, with higher severity categories observed more frequently in PRS cases (Table 3). Similarly, the Dissatisfaction Severity Index indicated low dissatisfaction in 71.3%, moderate dissatisfaction in 24.7%, and

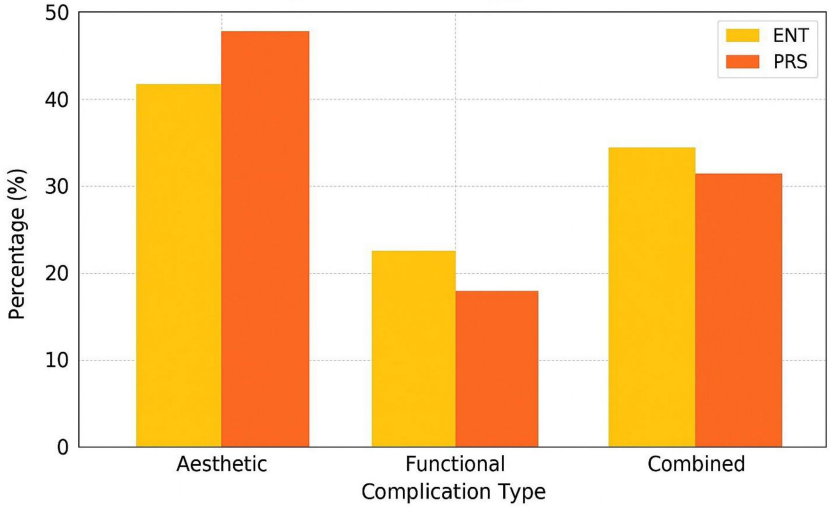


Figure 1. Distribution of complication types by surgical specialty: Aesthetic complications were more frequent in PRS patients, whereas functional complications were more common in ENT cases; combined complications were observed in both groups. ENT, otolaryngology; PRS, plastic and reconstructive surgery.

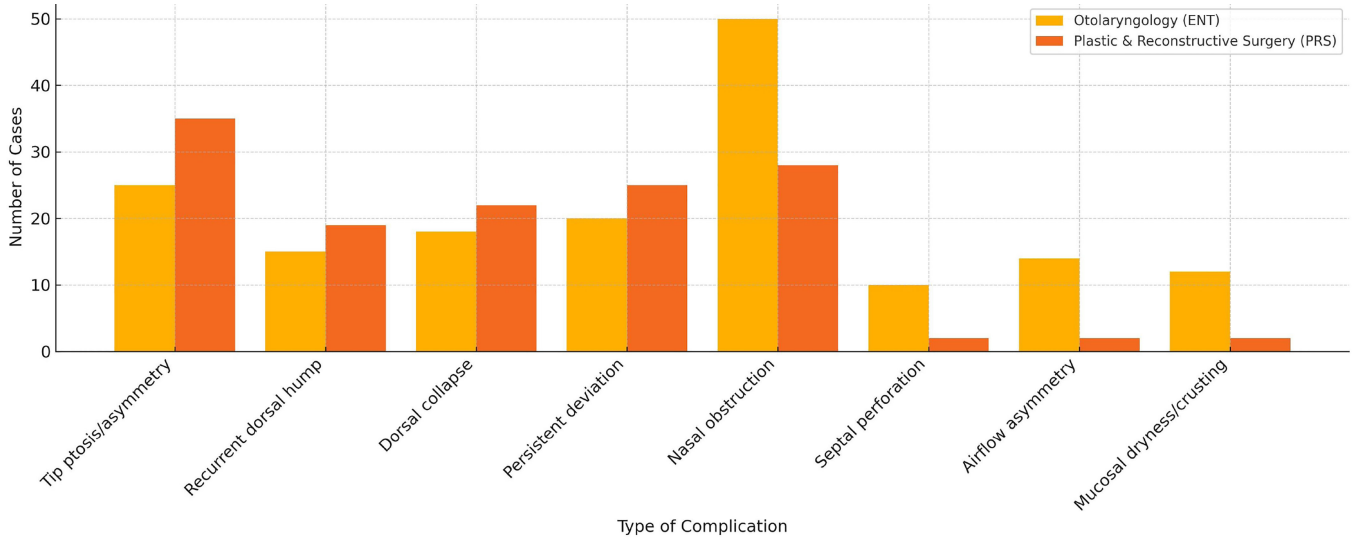


Figure 2. Frequencies of specific postoperative complications: Tip ptosis, dorsal irregularities, and residual deviation were the most common aesthetic complications, while functional complications were predominantly nasal obstruction and septal perforation.

high dissatisfaction in 4.0% of cases, with higher dissatisfaction levels more frequently observed among PRS patients (Table 4).

Based on the predefined composite outcome, severe dissatisfaction was present in 18 patients (8.1% of the study cohort). These patients fulfilled the definition of severe dissatisfaction by having severe expectation mismatch and/or a high Dissatisfaction Severity Index category. This composite severe dissatisfaction variable was used as the dependent variable in the primary multivariable logistic regression model.

Revision surgery was requested or recommended in 41.7% of patients (n = 93) and was significantly associated with combined functional–aesthetic complications ($P < .001$). Because revision demand was considered a postoperative marker of dissatisfaction burden rather than an independent pre-existing predictor, it was not included in the primary multivariable logistic regression model. The median time to complaint presentation was 9 months (range, 2-36). Patients attended a median of 3 postoperative consultations (range, 1-8), and consultation frequency was significantly associated with higher dissatisfaction levels ($P < .01$). Second-opinion consultations were documented in 38.6% of cases and were more common in patients with severe expectation mismatch ($P < .05$).

The Surgical Complexity Score was significantly higher in PRS cases compared with ENT cases (3.87 ± 1.3 vs. 2.83 ± 1.1, $P < .001$; Table 5), with an overall mean score of 3.19 ± 1.27. Higher complexity scores were significantly associated with revision demand ($P < .001$).

In the primary multivariable logistic regression model, revision demand was excluded because it was considered a postoperative marker of dissatisfaction burden rather than an independent predictor. The model included surgical specialty, complication type, and Surgical Complexity Score. Combined functional–aesthetic complications (OR = 2.9, 95% CI: 1.6-5.3, $P = .001$) and higher Surgical Complexity Score (OR = 1.8 per unit increase, 95% CI: 1.3-2.5, $P = .003$) were independently associated with severe dissatisfaction. Surgical specialty was not independently associated with severe dissatisfaction (OR = 1.5, 95% CI: 0.8-2.7, $P = .12$).

Revision demand was frequent among patients with severe dissatisfaction and was interpreted as a marker of dissatisfaction burden rather than as an independent predictor.

Discussion

The present study shows that severe postoperative dissatisfaction following septorhinoplasty is mainly associated with combined functional–aesthetic complications and increased procedural complexity rather than surgical specialty alone. Revision demand was frequent among patients with severe

Table 2. Expectation Alignment According to Surgical Specialty

Surgical Specialty	Complete Match, n (%)	Partial Mismatch, n (%)	Severe Mismatch, n (%)	Total (n)
ENT	98 (67.6)	41 (28.3)	6 (4.1)	145
PRS	48 (61.5)	18 (23.1)	12 (15.4)	78
Total	146 (65.5)	59 (26.5)	18 (8.1)	223

ENT, otolaryngology; PRS, plastic and reconstructive surgery; n, number of patients.

Table 3. Complication Severity According to Surgical Specialty

Surgical Specialty	Low Severity, n (%)	Moderate Severity, n (%)	High Severity, n (%)	Total (n)
ENT	115 (79.3)	30 (20.7)	0 (0.0)	145
PRS	53 (67.9)	24 (30.8)	1 (1.3)	78
Total	168 (75.3)	54 (24.2)	1 (0.4)	223

ENT, otolaryngology; PRS, plastic and reconstructive surgery; n, number of patients.

Table 4. Dissatisfaction Severity According to Surgical Specialty

Surgical Specialty	Low Dissatisfaction, n (%)	Moderate Dissatisfaction, n (%)	High Dissatisfaction, n (%)	Total (n)
ENT	112 (77.2)	30 (20.7)	3 (2.1)	145
PRS	47 (60.3)	25 (32.1)	6 (7.7)	78
Total	159 (71.3)	55 (24.7)	9 (4.0)	223

ENT, otolaryngology; PRS, plastic and reconstructive surgery; n, number of patients.

dissatisfaction, but it was interpreted as a postoperative marker of dissatisfaction burden rather than as an independent predictor. These findings suggest that dissatisfaction is a multifactorial construct in which technical, clinical, behavioral, and expectation-related factors interact.[4,7,8]

Although septorhinoplasty is performed by surgeons from different specialties, the current results suggest that surgical specialty itself is not the main determinant of dissatisfaction. While PRS cases were associated with higher procedural complexity and greater expectation mismatch, the regression analysis showed that procedural complexity and complication pattern, rather than surgical specialty itself, were independently associated with severe dissatisfaction. This distinction is clinically important, as it shifts the focus from provider-related factors to modifiable procedural and patient-related determinants.[4,9]

The differences in complaint profiles between ENT and PRS patients should also be interpreted in light of baseline indications and expectations. In this medico-legal referral cohort, functional complaints were more common among ENT patients, whereas aesthetic complaints were more common among PRS patients. This likely reflects differences in referral patterns, initial surgical indications, and patient expectations rather than an inherent difference between surgical specialties. Therefore, the ENT–PRS comparison in the present study should not be generalized to otolaryngology and plastic surgery practice as a whole. In many centers, otolaryngologists routinely perform both functional and aesthetic rhinoplasty, including highly complex cases. Accordingly, surgical specialty should be interpreted as a contextual variable within this selected referral cohort rather than as a direct measure of specialty-specific surgical performance.

A central finding of this study is the strong association between combined functional–aesthetic complications and dissatisfaction. Patients presenting with both functional impairment and aesthetic concerns had a significantly higher likelihood of severe dissatisfaction compared with those with isolated complications. This observation reflects the dual objectives of septorhinoplasty and underscores the importance of achieving both structural and cosmetic success. Previous studies have similarly highlighted that dissatisfaction is more pronounced when both functional and aesthetic outcomes are suboptimal.[11-13]

Procedural complexity emerged as another key determinant. Higher Surgical Complexity Scores were independently associated with a greater risk of dissatisfaction, suggesting that extensive structural modification may be linked to less predictable outcomes. This finding is consistent with previous literature indicating that more complex rhinoplasty procedures are associated with higher complication rates and revision needs.[7,8,14] Importantly, complexity likely acts not only as a technical factor but also as a surrogate marker for more challenging anatomical and aesthetic cases.[6,15]

Revision demand was frequent among patients with severe dissatisfaction and remained clinically relevant as an indicator of postoperative dissatisfaction burden. However, revision demand was not included in the primary multivariable regression model because it may arise after dissatisfaction has developed and may therefore conceptually overlap with the outcome itself. This distinction is important, as revision request or recommendation should be interpreted as a downstream clinical marker of unresolved functional or aesthetic concerns rather than as an independent pre-existing predictor.[2,11] From a clinical perspective, early recognition of patients expressing revision intent may still help identify individuals requiring closer follow-up, counseling, and structured postoperative management.[7]

Expectation–outcome mismatch also played a significant role in dissatisfaction patterns. Severe expectation mismatch was more frequent in PRS cases, possibly reflecting a greater emphasis on aesthetic outcomes in this patient group. Prior studies have consistently demonstrated that patient expectations are a major determinant of perceived success in rhinoplasty.[4,5] Even technically successful procedures may result in dissatisfaction when expectations are not adequately aligned with achievable outcomes.[4] Therefore, preoperative counseling remains a critical component of surgical planning.[4,10]

In addition to clinical and procedural factors, patterns of health care utilization provided further insight into the severity of dissatisfaction. Increased consultation frequency and second-opinion seeking were associated with higher dissatisfaction

Table 5. Surgical Complexity According to Surgical Specialty

Surgical Specialty	Score 1-2 (Low), n (%)	Score 3 (Moderate), n (%)	Score 4-5 (High), n (%)	Mean Score ± SD	Total (n)
ENT	75 (51.7)	52 (35.9)	18 (12.4)	2.83 ± 1.1	145
PRS	20 (25.6)	27 (34.6)	31 (39.7)	3.87 ± 1.3	78
Total	95 (42.6)	79 (35.4)	49 (22.0)	3.19 ± 1.27	223

ENT, otolaryngology; PRS, plastic and reconstructive surgery; n, number of patients; P, probability; SD, standard deviation.

levels, suggesting that these behaviors may serve as indirect markers of unresolved outcome concerns. These findings highlight the importance of monitoring postoperative patient interactions as part of comprehensive outcome assessment.[3,10]

Taken together, these findings indicate that dissatisfaction following septorhinoplasty should be considered a multidimensional outcome associated with complication patterns, procedural complexity, expectation alignment, and postoperative behavioral indicators. Rather than focusing solely on surgical specialty, clinicians should consider these interacting factors when evaluating risk and planning postoperative management.[4,7]

From a broader perspective, postoperative dissatisfaction has implications beyond individual patient outcomes. It may contribute to increased health care utilization, revision surgery rates, and potential medico-legal disputes.[2,3,10] Therefore, identifying high-risk cases based on complexity, combined complications, and expectation mismatch may improve patient selection, enhance preoperative counseling, and optimize postoperative management strategies across diverse clinical settings.[4,7]

Several limitations should be acknowledged. First, the retrospective design and the inclusion of a selected population of dissatisfied patients may limit generalizability and introduce selection bias. In addition, because the cohort was derived from a medico-legal referral pathway rather than from a single institutional surgical database, the total number of septorhinoplasty procedures performed in the source population was not available. Therefore, the present findings should not be interpreted as reflecting the overall incidence or prevalence of dissatisfaction after septorhinoplasty, but rather as identifying factors associated with severe dissatisfaction among referred medico-legal cases. Specialty-based comparisons may reflect the specific case mix, referral patterns, and baseline expectations of this medico-legal cohort and should not be generalized to ENT or PRS practice as a whole. Second, the absence of standardized patient-reported outcome measures limited the ability to directly quantify subjective satisfaction. In addition, objective nasal airflow measurements and validated functional questionnaires were not consistently available; therefore, functional disturbances were analyzed primarily as documented complications rather than as quantitatively graded functional outcomes. Third, the analytical indices used in this study were not externally validated and should be considered exploratory. In particular, the Expectation Alignment Score was reconstructed retrospectively from available documentation rather than assessed prospectively together with the patient, which may have introduced classification bias. Finally, assessment by a single evaluator may have introduced observer bias.

Despite these limitations, this study provides a comprehensive evaluation of dissatisfaction by integrating clinical, procedural, and behavioral factors within a single analytical framework. The results highlight the importance of a holistic approach to outcome assessment and emphasize the need for future prospective studies incorporating validated outcome measures.

In conclusion, severe dissatisfaction following septorhinoplasty is primarily associated with combined functional–aesthetic complications and procedural complexity rather than surgical specialty alone. Revision demand should be interpreted as a postoperative marker of dissatisfaction burden rather than as an independent predictor. Improved recognition of high-risk patients and enhanced expectation management may help reduce dissatisfaction and improve overall surgical outcomes. Future studies incorporating validated patient-reported outcome measures are needed to further refine risk assessment and outcome evaluation in septorhinoplasty.

Data Availability Statement: The data that support the findings of this study are available on request from the corresponding author.

Artificial Intelligence Usage Statement: The authors declared that no artificial intelligence tool was used in the preparation of the manuscript.

Ethics Committee Approval: The study protocol was approved by the Education and Scientific Research Commission of the Council of Forensic Medicine (Approval No.: 21589509/2023/143; Date: February 22, 2023).

Informed Consent: The requirement for informed consent was waived by the Education and Scientific Research Commission of the Council of Forensic Medicine because of the retrospective design and the use of anonymized data.

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References

1. Heilbronn C, Cragun D, Wong BJF. Complications in rhinoplasty: a literature review and comparison with a survey of consent forms. *Facial Plast Surg Aesthet Med*. 2020;22(1):50-56. [CrossRef]
2. Neaman KC, Boettcher AK, Do VH, et al. Cosmetic rhinoplasty: revision rates revisited. *Aesthet Surg J*. 2013;33(1):31-37. [CrossRef]
3. Ong AA, Kelly A, Castillo GA, Carr MM, Sherris DA. Characterization of medical malpractice litigation after rhinoplasty in the United States. *Aesthet Surg J*. 2021;41(10):1132-1138. [CrossRef]
4. Kandathil CK, Patel PN, Spataro EA, Most SP. Examining preoperative expectations and postoperative satisfaction in rhinoplasty patients: a single-center study. *Facial Plast Surg Aesthet Med*. 2021;23(5):375-382. [CrossRef]
5. Khan N, Rashid M, Khan I, et al. Satisfaction in patients after rhinoplasty using the rhinoplasty outcome evaluation questionnaire. *Cureus*. 2019;11(7):e5283. [CrossRef]
6. Doval AF, Ourian A, Boochoon KS, Chegireddy V, Lypka MA, Echo A. Comparing plastic surgery and otolaryngology surgical outcomes and cartilage graft preferences in pediatric rhinoplasty: a retrospective cohort study analyzing 1839 patients. *Med (Baltim)*. 2021;100(25):e26393. [CrossRef]
7. Crosara PFTB, Nunes FB, Rodrigues DS, et al. Rhinoplasty complications and reoperations: systematic review. *Int Arch Otorhinolaryngol*. 2017;21(1):97-101. [CrossRef]
8. Harsha BC. Complications of rhinoplasty. *Oral Maxillofac Surg Clin N Am*. 2009;21(1):81-89. [CrossRef]

9. Chinta S, Kumar KD, Sibala D, et al. Effect of surgical specialty on postoperative complications of rhinoplasty. *Otolaryngol Head Neck Surg*. 2025;173(4):875-881. [CrossRef]
10. Vicente-Ruiz M, Hontanilla B. A novel method for identifying patients with high risk of litigation in plastic surgery: introducing the FATIMA acronym. *Aesthet Plast Surg*. 2025;49(1):400-406. [CrossRef]
11. Goudakos JK, Daskalakis D, Patel K. Revision rhinoplasty: retrospective chart review analysis of deformities and surgical maneuvers in patients with nasal airway obstruction-five years of experience. *Facial Plast Surg*. 2017;33(3):334-338. [CrossRef]
12. Yamasaki A, Levesque PA, Bleier BS, et al. Improvement in nasal obstruction and quality of life after septorhinoplasty and turbinate surgery. *Laryngoscope*. 2019;129(7):1554-1560. [CrossRef]
13. Tian Q, Chu T, Sun H, Pang M. Outcomes of endonasal septoplasty and extracorporeal septal reconstruction in anterocaudal septal deviation. *Ear Nose Throat J*. 2021;100(5_suppl):645S-651S. [CrossRef]
14. Dąbrowska-Bień J, Skarżyński PH, Gwizdalska I, Łazęcka K, Skarżyński H. Complications in septoplasty based on a large group of 5639 patients. *Eur Arch Otorhinolaryngol*. 2018;275(7):1789-1794. [CrossRef]
15. Atighechi S, Sarafraz Z, Baradaranfar MH, et al. The effect of spreader graft and mattress suture technique on rhinoplasty in patients with nasal hump smaller than 3 mm. *J Craniofac Surg*. 2018;29(8):2110-2113. [CrossRef]