

# ENHANCING FACIAL FEATURES: EVALUATING SURGICAL OUTCOMES AND SATISFACTION IN MALE RHINOPLASTY

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## ABSTRACT

**Background:** Rhinoplasty is a commonly performed procedure, often undertaken for cosmetic, functional, or both reasons. Yet, male rhinoplasty poses particular challenges, often stemming from difficulties in communication and attention to detail.

**Objectives:** To assess surgical outcomes in terms of patient satisfaction and complications.

**Methodology:** This observational study was carried out at a private practice at Lady Reading Hospital in Peshawar, following approval from the ethical committee, for a duration of nine months. Male patients with age range 18-50 years were enrolled while Exclusion criteria comprised individuals with body dysmorphic disorder or a history of previous nasal surgery or trauma. Data was gathered using a predefined form, and pre-operative and post-operative photographic documentation was obtained. Patients were monitored for a duration of six months. Data was analyzed using SPSS version 22.

**Results:** The mean age observed was  $28.3 \pm 4.8$  years (range 20-40 years). Among participants, 37 patients (58.7%) opted for rhinoplasty solely for cosmetic reasons, while 26 (41.2%) underwent the procedure for both cosmetic and functional concerns. Overall satisfaction rate observed was 81% ( $P < 0.05$ ). 9.5% patients expressed high satisfaction, 71.5% patients were satisfied, while dissatisfaction was noted in 5 patients (7.9%) who underwent rhinoplasty for functional reasons. No major complications were noted during the study period.

**Conclusion:** A thorough pre-operative assessment, including a psychological evaluation to identify unrealistic expectations, along with clear communication with patients undergoing cosmetic surgery, boosts the chances of successful outcomes and enhances patient satisfaction.

**Keywords:** Rhinoplasty, satisfaction, dissatisfaction, hump reduction, osteotomy

## INTRODUCTION

Rhinoplasty stands out as a challenging yet frequently undertaken plastic surgery procedure, serving purposes of both function and aesthetics, as per data from the American Society of Plastic Surgeons.<sup>1</sup> A primary objective of rhinoplasty is to enhance the patient's facial appearance, aiming to alleviate social anxiety and boost self-esteem.<sup>3</sup> In recent years, there has been a notable surge in the demand for aesthetic rhinoplasty in Asia, attributed to heightened self-awareness and advancements in surgical techniques.<sup>4</sup>

In comparison to women, men seeking cosmetic surgery tend to exhibit higher levels of dissatisfaction with their appearance.<sup>5</sup>

While the surgeon's skill and the quality of the procedure play a major role in patient satisfaction, they are not the only factors influencing outcomes. Other elements, such as the patient's gender, age, education level, the specific concern being addressed by the rhinoplasty, and most importantly, the patient's expectations, also contribute to overall satisfaction.<sup>6</sup> Consequently, careful patient selection, effective communication and pre-operative planning and evaluation is critical in rhinoplasty, as a significant number of patients may remain dissatisfied despite a successful surgical outcome.<sup>7</sup>

Male rhinoplasty poses significant challenges associated with personality traits, including poor communication skills and listening abilities in some individuals.<sup>8</sup> A survey revealed that female patients had a significantly higher satisfaction rate compared to male patients, with 87.6 percent of women reporting satisfaction versus 56.1 percent of

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men.<sup>6</sup> Various methods exist for assessing rhinoplasty outcomes, each susceptible to bias. Some researchers have directly solicited patient feedback regarding satisfaction levels, while others have utilized surveys and ROE scores (Rhinoplasty outcome evaluation) as a means of evaluation.<sup>9 10 11</sup>

This study also determines the surgical outcomes following male rhinoplasty in terms of complications and satisfaction.

## MATERIALS AND METHODS

This observational study was carried out at private based practice of lady reading hospital Peshawar after approval from institutional ethical committee. The duration of study was nine months. Total of 76 male patients were received, out of which 63 patients fulfilled the inclusion criteria. patients with age ranging from 18-50 years were included in the study whereas patients having body dysmorphic disorders, unrealistic expectations, and those having previous history of nasal or facial surgery or trauma were excluded from the study.

Data was collected in a specified Performa after taking informed consents from patients at the time of admission. Feedback was obtained post operatively at 4 weeks and then at 3 months. Pre-operative and post-operative photographs were taken. Variables included age, concern, per-operative surgical Steps (tip definition, hump reduction, septal reconstruction, osteotomy), 5 point Linkert satisfaction score (1: highly satisfied, 2: satisfied, 3: neutral ,4: dissatisfied, 5: highly dissatisfied). Variables like concern, surgical steps used, satisfaction outcomes were presented as frequencies and percentages.

Satisfaction level was tested using chi square test with a p-value  $\leq 0.05$  considered statistically significant (confidence interval of 95% and margin of error 5%). Data analysis was done using SPSS version 22 and results were displayed through graphs and tables. Patients were followed up at 1<sup>st</sup> week for removal of sutures, pack and splint, at 2<sup>nd</sup> Week for Wound status, at 4 weeks for Examination and complications and initial feedback, and finally at 3 months for final review and feedback.

## SURGICAL TECHNIQUE

All surgeries were conducted by a single expert plastic surgeon. Pre-operative markings were done with the patient in an upright position. Pre-operative pictures were captured. The procedure itself was performed with the patient in a supine position. with head elevated to about 30 degrees; tumescence was infiltrated (composed of 10ml of 20mg bupivacaine, 10ml of 2% lidocaine, and 1ml of adrenaline in 1L of Ringer lactate). The use of bupivacaine provides pain relief for up to 12 hours after surgery.

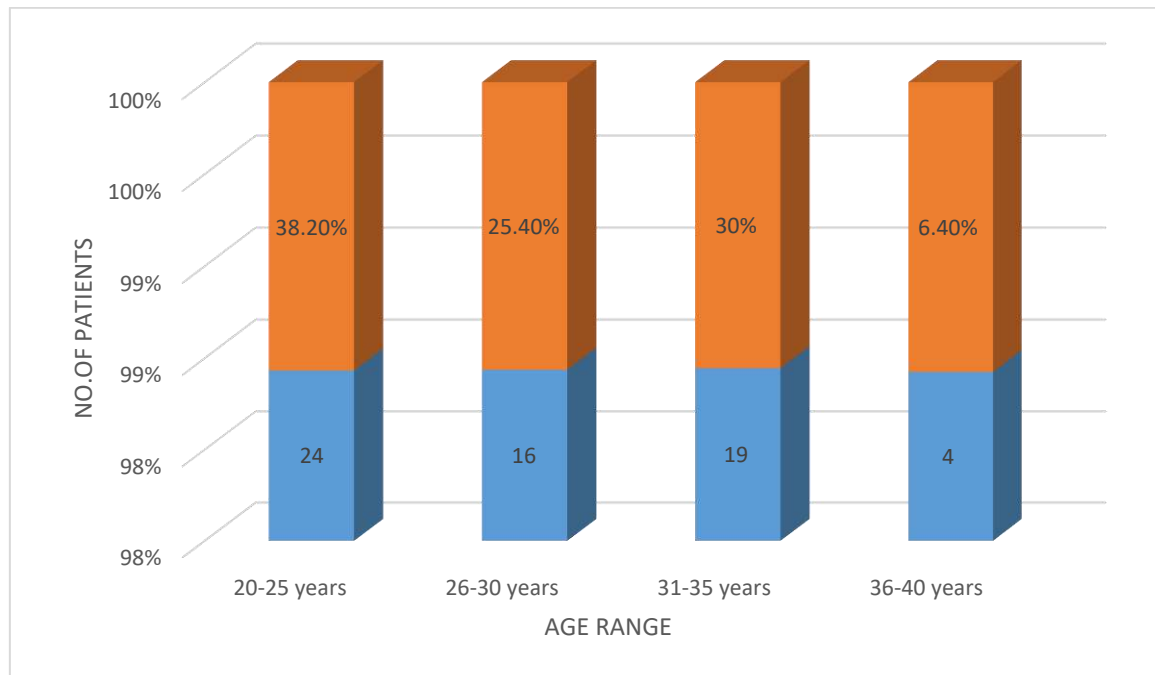
Following the initial incision, the skin covering is lifted, and if necessary, adjustments are made to reduce the dorsal nasal hump. Septal reconstruction involves elevating mucoperichondrial flaps, followed by bilateral osteotomy to reshape the nasal structure. Suturing is then performed using prolene 4/0 to refine the tip. If the tip appears depressed, a collumellar strut graft is applied. Additionally, if the nasal base is wide, alar base resection may also be performed. (Figures 1)



**FIGURE 1: SHOWING PRE AND POST OP PICTURE WITH TIP DEFINITION AND DOSRSAL HUMP REDUCTION**

## RESULTS

The mean age observed was  $28.3 \pm 4.8$  years (range 20-40 years) with 38.2% patients in the range of 20-25 years (Fig 3)



**FIGURE 2: GRAPH SHOWING AGE RANGES AND FREQUENCY**

Out of 63, 37 patients (58.7%) opted for rhinoplasty solely for cosmetic reasons, while (41.2%) underwent the procedure to address both cosmetic and functional concerns.

Among 63 patients, 25 patients (39.7%) had tip definition and septal reconstruction, 15 patients (23.8%) underwent hump reduction and osteotomy in addition to tip definition, 14 patients (22.2%) required only tip definition and hump reduction, while full range rhinoplasty was performed for only 9 patients (14.3%).

Overall satisfaction rate observed was 81% (P-value  $<0.05$ ) that indicates the result as significant. 9.5% patients expressed high satisfaction, 71.5% patients were satisfied, 11.1% of patients remained neutral, while 5% patients who underwent rhinoplasty for functional reasons reported dissatisfaction (Table 1). Satisfaction level at 4 weeks was 76.5% that increased to 81% at 3 months in these patients (z score 0.63, P value 0.5) however this change is not significant.

**TABLE 1: cross tabulation of satisfaction level with procedural steps**

No major complications were observed in any patient post operatively.

**DISCUSSION**

We observed that 9.5% of patients were highly satisfied with the shape and appearance of their

The growing popularity of rhinoplasty in recent

PROCEDURE	SATISFACTION LEVEL					
	Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	Total
Tip definition and septal reconstruction	0	18 (28.5%)	2 (3.3%)	5 (7.9%)	0	25 (39.7%)
Tip definition, hump reduction and osteotomy	4 (6.3%)	11 (17.4%)	0	0	0	15 (23.8%)
Tip definition, hump reduction	2 (3.2%)	12 (19%)	0	0	0	14 (22.2%)
Full range	0	4 (6.4%)	5 (7.9%)	0	0	9 (14.3%)
<b>Total</b>	6 (9.5%)	45 (71.5%)	7 (11.1%)	5 (7.9%)	0	63 (100%)

years demands both excellent aesthetic results and improved functionality. The increasing demand for these procedures has led clinicians to focus more on evaluating facial plastic surgery outcomes, with an emphasis on incorporating greater objectivity in assessing patient satisfaction.<sup>12 13</sup>

It's crucial for a surgeon to precisely recognize and understand the reasons behind a patient's desire for rhinoplasty in order to evaluate its success effectively. A cosmetic procedure cannot be considered successful unless the patient is satisfied with the result, even if the surgeon is content.<sup>14</sup> The most effective way to measure satisfaction level is by obtaining patient feedback, either through the ROE questionnaire or a 5-point Linkert scale.<sup>15</sup>

In our study, the mean recorded age was 28.3 ± 4.8 years, aligning with findings from a study conducted in Pakistan where the mean age reported was 28.2±2.8 years.<sup>16</sup>

We found that the overall satisfaction rate was 81%, indicating statistical significance. A survey in America showed that females had a higher satisfaction rate compared to males, with rates of 87.6% and 56.1%, respectively, as women tend to communicate their expectations more effectively than men.<sup>6</sup> however the overall satisfaction rates were comparable to that of other studies in Pakistan and Saudi arab.<sup>16 17</sup>

nose, while 5 patients (7.9%) were dissatisfied, primarily due to ongoing functional issues (n=3) or dissatisfaction with the nasal shape (n=2). In a study conducted in the USA, 15.5% of male patients reported dissatisfaction, and only 57.7% expressed high satisfaction with primary rhinoplasty.<sup>18</sup>

Generally, Patients who are more informed and knowledgeable about the procedure tend to have higher expectations post operatively, often requiring counseling sessions to align their understanding with the surgeon's perspective.<sup>19</sup> Therefore, thorough preoperative evaluations and addressing patient needs and expectations are essential, especially, since male patients often present with vague complaints and have limited understanding of their nasal deformities.<sup>20</sup>

**CONCLUSION**

Thorough preoperative planning, effective communication, and a clear understanding of patient expectations are essential for successful male rhinoplasty. Additionally, maintaining masculine facial features is a key consideration in achieving optimal results. While advancements in surgical techniques have significantly improved outcomes in male rhinoplasty, increased awareness has

simultaneously heightened patient demands and expectations.

### LIMITATIONS

The study was conducted in a facility setting, utilizing data collected through a questionnaire based on a Likert scale, reflecting patient feedback. However, to thoroughly evaluate the outcomes of rhinoplasty, a larger sample size and enhanced quality of life assessment tools are required.

### DECLARATIONS

### AUTHORS CONTRIBUTIONS

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