

# COSMETIC SATISFACTION IN PATIENTS UNDERGONE SEPTORHINOPLASTY

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## ABSTRACT

**Objective:** To compare the preoperative and postoperative satisfaction of patients with nasal deformities who have undergone septorhinoplasty as single staged procedure.

**Method:** It was a prospective study, done in Dr. Ruth K. M. Pfau, Civil hospital Karachi, from 1<sup>ST</sup> Jan 2018 to 31<sup>ST</sup> July 2019, on 25 patients who have undergone septo rhinoplasty. Satisfaction level of patients was evaluated preoperatively and post operatively. Rhinoplasty evaluation outcome (ROE) questionnaire was used. Scores were described as Poor < 12, Good 12-18, Excellent > 18.

**Result:** In our study, there were 17 males and 8 females. It was found that preoperatively out of 25 patients, the satisfaction level was poor in 24 patients (96%), while in 1 patient (4%), it was good. Postoperatively the results showed that about 17 patients (68%) had good while 8 patients (32%) had excellent satisfaction scores. Mean preoperative satisfaction of patients was  $5.5 \pm 3.61$  which became  $18.0 \pm 1.49$  postoperatively. The mean preoperative satisfaction in 17 males was  $6.07 \pm 3.62$  and postoperatively it became  $18.35 \pm 1.59$ . While in 8 females, mean satisfaction was  $4.16 \pm 3.48$  preoperatively, which became  $17.16 \pm 0.75$  after surgery.

**Conclusion:** It has been concluded that most of the patients were found to be satisfied with the procedure. The study is helpful in knowing the expectations of patients and achieving realistic goals in septorhinoplasty.

**Keywords:** Rhinoplasty, Septoplasty, Cosmetic.

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## INTRODUCTION

In the recent times, the demand of cosmetic procedures has greatly increased. Since nose is a pivotal part of face, any defect in it affects the personality of a person, make him self-conscious and increase social anxiety<sup>1</sup>. Rhinoplasty, sometimes referred as nose job or nose reshaping, is a procedure done by a plastic or an ENT surgeon, in order to correct the nasal deformity. It is done for cosmetic purposes, to improve the shape, size and symmetry of nose. With this procedure, functional problems like nasal obstruction and recurrent sinusitis can also be relieved.

The evaluation of success of the procedure depends on patient's satisfaction score. The rhinoplasty

outcome evaluation (ROE) score<sup>2</sup> is based on questions that define the satisfaction and expectations of the patient for aesthetic and functional self-assessment.<sup>3</sup> The score improves after the procedure irrespective of the initial demands (post traumatic, cosmetic or functional)<sup>4</sup>. Patients who have functional deficits benefit their lives after rhinoplasty and satisfaction level is high. On the other hand, those who underwent surgery for cosmetic purpose, are very focused about their appearance<sup>5</sup>. These patients usually have higher expectation than normal, and may have negative outcome<sup>6</sup>. The psychological distress after surgery is also high in such patients<sup>7</sup>. A surgeon performing rhinoplasty must know patient's expectations and should counsel him about the surgical outcome of the procedure.

There are different types of nasal deformities, ranging from deviated nasal septum to external nasal defects like deviation of nose to one side, hump, tip drop, saddle nose and alar collapse. The most common mechanism being trauma to nose, which is an important factor for creating the defect. Septorhinoplasty, being an aesthetic procedure, not only removes the defect, but

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also improves the quality of life<sup>8</sup> and nasal symptoms<sup>9</sup> of an individual.

The National Health Service demands the evidence of benefits of a procedure, to ensure its viability<sup>10</sup>. It is therefore important to assess the satisfaction of patients who have undergone septorhinoplasty, in order to develop the value of this procedure.

**MATERIAL & METHODS**

It was a prospective study, done in Dr. Ruth K. M. Pfau Civil Hospital Karachi, on 25 patients, who underwent septorhinoplasty over a period of 1.5 year, from 1st January 2018 to 31st July 2019. Patients were studied on their age, gender, primary vs secondary surgery, type of procedure, graft if placed, and postoperative satisfaction level. Using ROE questionnaire<sup>2</sup>, preoperative and postoperative assessment was done. Scores were described as Poor < 12, Good 12-18, Excellent > 18.

Detailed history and clinical examination was done and ROE questionnaire was asked to the patients through an interview preoperatively and postoperatively after 6 weeks, and satisfaction score was recorded by a third (non-operating) surgeon to avoid bias. Basic investigations were done. CT 3D face was done whenever needed. Patients with both nasal septal defects and external nasal deformities have been operated. Trauma is the most common cause of nasal defects. Patients were operated via open as well as closed rhinoplasty approach. Both augmentation and reduction rhinoplasties were performed. Aims of surgery were to correct nasal septal defects, external nasal deformities, to give better cosmetic appearance, to meet maximum expectations of patients and to assess their satisfaction preoperatively and postoperatively<sup>11</sup>.

We included patients in the study with age ranging from 16 to 45 years. Both males and females were

included. Patients below 16 years, those with nasal obstruction secondary to mass or polyp, who are taking antipsychotics, pregnant females, those with any contraindication to surgery were excluded.

All patients were informed about the procedure and consent was taken. All procedures were performed under general anesthesia. Post operatively antibiotics were prescribed. After removing nasal packs, patients were discharged and followed up after 10 days for removal of splints and after 14 days for removal of plaster of Paris, if applied. Routine follow up was done after 2 weeks and 6 weeks postoperatively. Through ROE questionnaire, satisfaction score measured at 6 weeks postoperatively and results analyzed. Paired t-test was used to calculate p value. Level of Significance was set at p<0.05.

**RESULT**

In this study, out of 25 patients, age of 16(64%) of them range from 16-25 years, 8(32%) patients range from 26-35 years and age of 1(4%) patient ranges from 36 to 45 years. Out of 25 patients, 17(68%) were males and 8(32%) were females.

Out of 25 patients, 24 (96%) had preoperative satisfaction score less than 12 that is labeled as poor score. One had (4%) had score ranging between 12 and 18 that is good score. Out of these 24, 16 (64%) were males and 8 (32%) were females.

Postoperatively, 17 patients had good while 8 had excellent satisfaction scores. Out of the 17 patients with good scores, 9 (36%) were males and 8 (32%) were females. Those with excellent score were all males (32%). Therefore in the study, there was no worsening of satisfaction noted among the patients.

The mean preoperative satisfaction score in 17 males was 6.0714 which became 18.35 postoperatively.

**Table: 1 RHINOPLASTY OUTCOME EVALUATION QUESTIONNAIRE (There were 5 options for each question with scores ranging between 0 and 4. Total score was calculated for all six questions)( Scores: Poor < 12, Good 12-18, Excellent > 18)**

	0	1	2	3	4
Do you like how your nose looks?	Absolutely no	A little	More or less	Very much	Absolutely yes
Do you breathe well through your nose?	Absolutely no	A little	More or less	Very much	Absolutely yes
Do you believe your friends and people who are dear to you like your nose?	Absolutely no	A little	More or less	Very much	Absolutely yes
Do you think the current appearance of your nose hampers your social or professional activities?	Always	Frequently	Sometimes	Rarely	Never
Do you think your nose looks good as it could be?	Absolutely no	A little	More or less	Very much	Absolutely yes
Would you undergo surgery to change the appearance of your nose or to improve breathing?	Certainly yes	Very likely yes	Possible yes	Probably no	Certainly no

**Table 2: Satisfaction Of Patients Preoperatively And Postoperatively**

Satisfaction score	Number of patients Preoperatively	Number of patients post-operatively
Poor (<12)	24 (96%)	0
Good (12-18)	1 (4%)	17 (68%)
Excellent (>18)	0	8 (32%)
Total	25	25

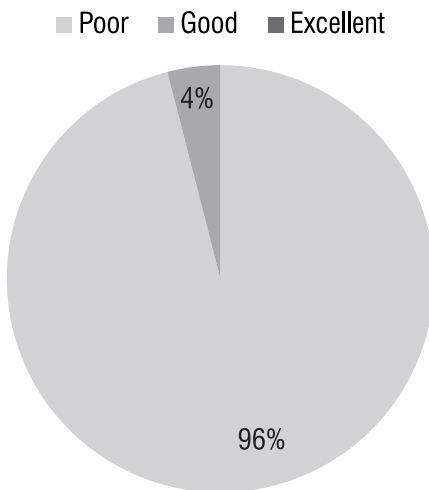
**Table 3: Satisfaction Of Male Patients Preoperatively And Postoperatively**

Males	Preoperatively	Postoperatively
N	17	17
MEAN	6.07 ±3.62	18.35 ±1.59

**Table 4: Satisfaction Of Female Patients Preoperatively And Postoperatively**

Females	Preoperatively	Postoperatively
N	8	8
MEAN	4.16 ±3.48	17.16 ±0.75

Pre- Operative Satisfaction of Patients



The standard deviations have been mentioned above. The p-value was <0.05. It was clear from the results that the postoperative satisfaction was improved greatly, using paired t-test.

The mean satisfaction score was a little more for males than females. Mean satisfaction score for all patients preoperatively was 5.5 and became 18 post-operatively.

**DISCUSSION**

The aim of aesthetic surgery is to achieve normal shape of structures, restoring appearance to improve

Post Operative Satisfaction of Patients

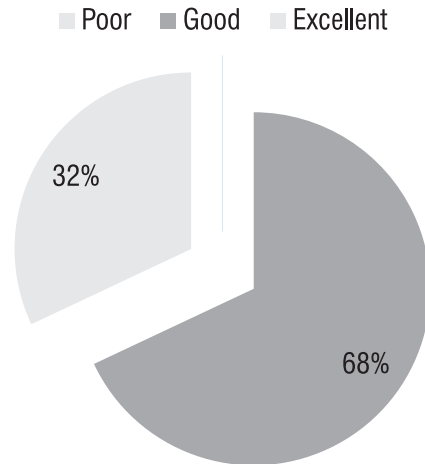


Figure 1: Correction of Deviated Nasal Dorsum

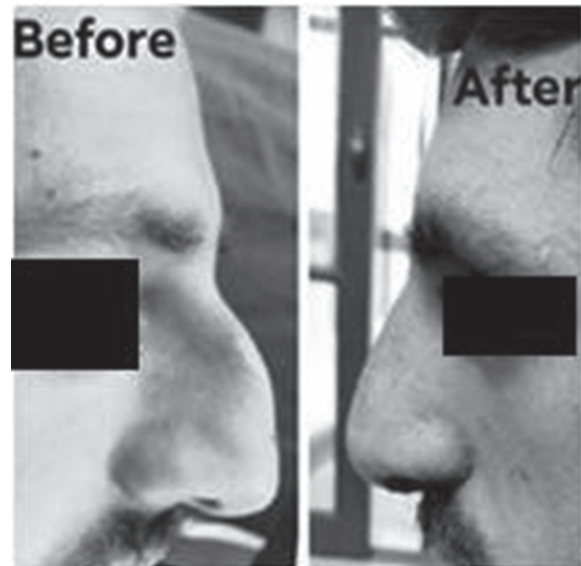


Figure 2: Hump Reduction

patient appearance and self-image. Although the technical aspects of aesthetic surgery are important, the factor that determines the success of a procedure is the satisfaction of the patient postoperatively. In Schwitzer's study, it was concluded that after undergoing rhinoplasty, the satisfaction of patients was high, supporting the successful outcomes possible in rhinoplasty<sup>12</sup>.



Figure 3: Correction of Saddle Nose Deformity



Figure 4: Correction of Complex Nasal Deformity (lateral deviation of dorsum along with saddling).

Age is an important factor in assessment of satisfaction of post operative patients. In a study conducted in 2001 by Ariama, the satisfaction scores after septorhinoplasty in younger individuals were found to be lower than older ones<sup>13</sup>.

Rhinoplasty, is a very challenging and compounded procedure in plastic surgery. The challenge is more among male patients due to their nonspecific complains, demanding nature and less attention paid during consultations. It is therefore important for the surgeon that he must explain the male patient about the procedure and make sure that he has realistic goals before undergoing surgery<sup>14</sup>.

Revisonal surgeries are being the most complicated procedures. It is due to the fact that the anatomy is disturbed after primary surgery and the tissues are

distorted secondary to the effect of fibrosis and local inflammation. These re revisional procedures when performed on face are very difficult. The individuals who are being reoperated are more stressed, and it is hard to meet their aesthetic requirements. This fact highlights the importance of patients' selection for achieving good surgical outcomes and postoperative satisfaction scores.<sup>15</sup> In another study, it was demonstrated that surgical difficulties of revisional surgery is twice that of the primary procedure, due to major deformities<sup>16</sup>, however, there is no major difference in satisfaction score and improvement in quality of life after primary and secondary surgery.

Out of many factors which describe the patient's satisfaction after aesthetic surgery, comorbidities and associated medical condition also have some role in it. In one study conducted by Greenfield<sup>17</sup>, it is evident that patient's postoperative satisfaction is also influenced by his/her medical condition. The psychological distress is also an important factor to assess the success of surgery<sup>18</sup>. Defect in the nasal framework is another factor playing its role in making the procedure complicated. It is hard to meet such patients' expectations especially after single surgery. In a study conducted by C. Cingi and G. Eskiizmir, it was concluded that those with external nasal deformities have less chances of improvement in quality of life after rhinoplasty than the ones without it<sup>19</sup>. Rhinoplasty can be performed through open approach, in which external skin incision is given, skin flap is raised and bony deformity corrected, while in closed approach, the procedure is done intranasally. The aesthetic benefit of closed approach is better than open approach. But when studied by Amy M. Saleh and Ahmed Younes<sup>20</sup>, it was found out that no significant improvement has been noted in satisfaction scores among patients operated through open and closed approaches, or whether surgery is primary or revisional.

Osteotomy is the surgical cutting of bone to allow its realignment. It is an important but not essential part of rhinoplasty. Simsek G, Demirtas E<sup>21</sup> found out that with the addition of osteotomy, the satisfaction of patients after nasal surgery is enhanced significantly. Augmentation rhinoplasty, a type of nasal surgery, is done for depressed nose, saddle nose, with a depressed tip or for a collapsed alae. There are a number of graft materials that are used for augmentation purposes, including autogenous grafts, homogenous grafts and variety of synthetic grafts. Among autogenous grafts, cartilaginous grafts are the mainstay for augmentation rhinoplasty. Bone can be used as graft, but it yields unsatisfactory results in cosmetic appearance of nose, and has problems with resorption of graft<sup>22</sup>.

## CONCLUSION

To evaluate the benefit of septorhinoplasty on lives of patients. It was also concluded that proper counseling of the patients should be done and their expectations

should be assessed before planning surgery.

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## **AUTHOR'S CONTRIBUTION**

Following authors have made substantial contributions to the manuscript as under:

- Khan TZ:** Conception of Idea, data Collection Methodology, dictation ,writing ,lead role.
- Mehfooz S:** Conception of Idea, data Methodology ,Discussion.
- Ahmed Z:** Data collection, Methodology.
- Aftab AA:** Manuscript Writing.
- Nizami ZA:** Manuscript Writing.
- Akhter S:** Bibliography.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.