

Review Article

Exploring the psychological facets of cosmetic rhinoplasty

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ABSTRACT

Cosmetic rhinoplasty is a surgical procedure aimed at enhancing the aesthetic appearance of the nose, with implications beyond physical changes. This review synthesizes evidence regarding the psychological effects and quality of life outcomes post-cosmetic rhinoplasty. Through a comprehensive literature review, it explores the psychological aspects, including body dysmorphic disorder (BDD), the development of assessment tools like the rhinoplasty outcome evaluation (ROE) questionnaire, the Derriford assessment scale (DAS), and the Rosenberg self-esteem scale. The review concludes that while cosmetic rhinoplasty positively impacts psychological well-being and quality of life, further research is needed to understand long-term effects and optimize patient care.

Keywords: Body dysmorphic disorders, Cosmetic rhinoplasty, Derriford assessment scale, Psychological implications, Rhinoplasty outcome evaluation questionnaire, Rosenberg self-esteem scale

INTRODUCTION

Cosmetic rhinoplasty is one of the most common cosmetic surgeries performed worldwide, with millions of procedures conducted each year. Despite its popularity and widespread acceptance, cosmetic rhinoplasty remains a subject of ongoing debate, particularly concerning its psychological implications and impact on patients' quality of life.

In recent years, there has been a growing recognition of the psychological dimensions of aesthetic rhinoplasty, with researchers and clinicians alike increasingly interested in understanding the psychological effects of the procedure on patients.¹ Studies have consistently shown that individuals undergoing cosmetic rhinoplasty may experience heightened levels of psychological distress, including symptoms of anxiety, depression, and body image dissatisfaction.² Furthermore, concerns have been raised about the prevalence of body dysmorphic disorder (BDD) among patients seeking facial plastic surgeries, particularly rhinoplasty.³

The psychological implications of cosmetic rhinoplasty are particularly relevant where societal norms and cultural values may influence individuals' perceptions of beauty and attractiveness. Despite the growing popularity of cosmetic procedures, there remains a paucity of research examining the psychological effects and quality of life outcomes following cosmetic rhinoplasty. Therefore, this review aims to fill this gap by synthesizing existing evidence and providing insights into the psychological implications of cosmetic rhinoplasty in this context.

METHOD

A literature review was conducted to identify studies examining the psychological effects and quality of life outcomes following cosmetic rhinoplasty. English-language publications were searched using electronic databases, including PubMed, Google Scholar, and Mendeley. The search strategy included keywords such as "cosmetic rhinoplasty," "psychological implications," "quality of life," and related terms. Studies published up to the present were included in the review.

The inclusion criteria for studies were as follows: focused on cosmetic rhinoplasty procedures, examined psychological outcomes or quality of life measures, published in English-language peer-reviewed journals, and provided sufficient data for analysis. Studies that did not meet these criteria were excluded from the review.

A total of 30 articles met the inclusion criteria and were included in the review. These articles were thoroughly reviewed and analyzed to extract relevant information on the psychological effects and quality of life outcomes following cosmetic rhinoplasty in the Indian population. The findings of these studies were synthesized and discussed in the following sections.

DISCUSSION

The psychological evaluation of patients seeking cosmetic rhinoplasty is a critical aspect of preoperative assessment. Several studies have highlighted the importance of assessing the psychological status of individuals before undergoing this cosmetic procedure. For example, Pirochchai et al conducted a study comparing the psychological status of rhinoplasty patients with the general population and found a significantly higher risk of poor mental status among the former.⁴ This underscores the necessity for surgeons to be cognizant of their patients' psychological well-being before proceeding with surgery.

Furthermore, the relationship between body image and psychological health is well-established, particularly concerning the nose, which plays a significant role in shaping one's self-esteem and perception. Different cultural and anatomical motivations may influence patients' desires for rhinoplasty, as highlighted in studies examining individuals of various ethnic backgrounds.⁵ Omar et al conducted a study in Egypt, revealing a high prevalence of psychiatric morbidity among rhinoplasty seekers, with mixed personality disorder and body dysmorphic disorder being among the most common diagnoses. This emphasizes the importance of preoperative psychiatric assessment to mitigate potential risks for both patients and surgeons.⁶

In addition to preoperative assessment, studies have also explored the psychological effects of cosmetic rhinoplasty postoperatively. Mehriar et al's case-control study demonstrated higher mean scores for sensitivity and anxiety among rhinoplasty applicants compared to the control group. The study suggests that poor mental health among cosmetic surgery volunteers could contribute to their decision to undergo such procedures, necessitating psychological intervention to improve self-image and reduce negative psychosis symptoms.⁷

Body dysmorphic disorder (BDD) presents a significant concern in the context of cosmetic rhinoplasty, with studies reporting an increased dissatisfaction rate among individuals undergoing both plastic surgery and screening for this disorder. This finding underscores the importance

of identifying and addressing BDD among individuals seeking cosmetic procedures to ensure optimal outcomes.⁸

In a study by Kisely, it was observed that BDD and other psychiatric disorders are more prevalent among individuals desiring rhinoplasty. This highlights the necessity for comprehensive psychiatric evaluation and screening protocols to identify underlying psychological factors that may impact surgical outcomes.⁹

Furthermore, Ambro et al emphasized the challenges associated with managing patients dissatisfied with prior rhinoplasty experiences. Their research suggests that patients' perceptions of suboptimal results, even if disputed by the surgeon, can have a significant impact on patient satisfaction and well-being. Therefore, preoperative assessment of psychological and psychosocial factors is essential to address patient concerns and achieve satisfactory outcomes for both patients and surgeons.¹⁰

Additionally, Sarwer et al found that while body image dissatisfaction may drive individuals to seek cosmetic treatments, psychiatric disorders characterized by body image disturbances, such as BDD and eating disorders, are relatively common among these patients. This highlights the importance of a multidisciplinary approach involving mental health professionals and plastic surgeons to address the complex psychological needs of individuals seeking rhinoplasty.¹¹

The integration of assessment tools in cosmetic rhinoplasty

The assessment of psychological outcomes and quality of life following cosmetic rhinoplasty relies on the use of validated instruments and scales. One such tool is the rhinoplasty outcome evaluation (ROE) questionnaire, which was developed to assess patient satisfaction and functional outcomes following facial aesthetic procedures. The ROE questionnaire comprises questions related to physical, emotional, and social aspects of rhinoplasty outcomes, providing valuable insights into patient-reported experiences post-operatively.¹²⁻¹⁴

The ROE questionnaire has been utilized in numerous studies to evaluate patient satisfaction and functional outcomes following rhinoplasty procedures.¹⁵ For example, Bilgin et al conducted a retrospective observational study to assess patient satisfaction with septorhinoplasty using the ROE questionnaire. Their findings highlighted demographic factors, such as age and gender, influencing postoperative satisfaction levels.¹⁶ Similarly, Saraf et al explored the impact of septorhinoplasty on quality of life using the ROE questionnaire, emphasizing the importance of preoperative counseling and patient education.¹⁷

Another tool commonly used in assessing psychological distress and dysfunction associated with facial appearance concerns is the Derriford appearance scale (DAS),

specifically the DAS59 and DAS24.^{18,19} These scales provide objective measures of psychological well-being and have been employed in studies evaluating patient-reported outcomes in rhinoplasty patients.

For example, Patnaik et al investigated the use of the DAS in identifying patients with psychological distress pre- and post-rhinoplasty. Their findings suggested significant improvements in overall scores and subscales related to self-consciousness and social acceptance postoperatively.²⁰ Similarly, Ricketts et al utilized the DAS59 to evaluate outcomes in secondary cleft rhinoplasty, indicating a reduction in patient concern with appearance after surgery.²¹

Despite its advantages, the DAS has limitations that warrant consideration. Studies have highlighted potential redundancy within the DAS24, suggesting the inclusion of unnecessary items. However, this redundancy does not significantly impact its practical performance or clinical inferences. Moreover, the DAS may not capture cultural nuances and individual variations in perception, potentially affecting its generalizability across diverse populations.²²

The Rosenberg self-esteem scale is a widely recognized and utilized tool for assessing an individual's self-esteem, originally developed with adolescents in mind but widely applicable to adult populations. Comprising 10 items, including both positively and negatively worded statements, it offers a comprehensive view of an individual's perception of self-worth. The scale's simplicity, brevity, and clear Likert scale format make it accessible and convenient for both researchers and respondents.^{23,24}

Originally constructed as a Guttman-type scale, it has evolved to employ a 4-point Likert scale response format, enhancing ease of use without compromising its reliability or validity. Its adaptability to various age groups and cultural contexts further underscores its utility across diverse populations.²⁵ The inclusion of negatively worded items ensures a more nuanced assessment, capturing both positive and negative aspects of self-perception.²⁶

However, the uni-dimensionality of the scale, while facilitating ease of interpretation, may overlook nuances in self-esteem facets such as stability, controllability, or domain-specificity. Additionally, the reliance on self-reporting leaves room for social desirability bias, potentially affecting the accuracy of responses. Furthermore, the scale's focus on global self-esteem may not fully capture situational or context-dependent fluctuations in self-esteem levels.^{27,28}

The Rosenberg self-esteem scale serves as a valuable tool for assessing overall self-esteem in research and clinical settings, the researchers should consider supplementing its use with complementary measures to gain a more

comprehensive understanding of self-esteem dynamics.^{29,30}

CONCLUSION

In conclusion, the review highlights the importance of considering psychological implications alongside physical changes in the evaluation and management of patients undergoing cosmetic rhinoplasty. While cosmetic rhinoplasty appears to positively impact psychological well-being and quality of life for many individuals, further research is needed to explore long-term effects, patient satisfaction, and factors influencing outcomes post-surgery. The integration of psychiatric evaluation and assessment tools such as the ROE questionnaire, DAS, and Rosenberg self-esteem scale is crucial in optimizing patient care and ensuring satisfactory outcomes for individuals undergoing cosmetic rhinoplasty. Collaborative efforts between surgeons and mental health professionals are essential to address the complex psychological needs of patients and enhance overall well-being throughout the surgical process.

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